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**Media regimes and political communication: Democracy and
interactive media in France**

Lytel, David Arnold, Ph.D.

Cornell University, 1995

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**MEDIA REGIMES AND POLITICAL COMMUNICATION:
DEMOCRACY AND INTERACTIVE MEDIA IN FRANCE**

A Dissertation

**Presented to the Faculty of the Graduate School
of Cornell University**

**in Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy**

By

David A. Lytel

January 1995

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BIOGRAPHICAL SKETCH

David Lytel has taught "Technology and Social Change," among other courses, and published in academic journals such as Contemporary French Civilization, The Information Society, and Amministrare. He has served as a consultant to corporate and governmental clients including Corning, Bell Atlantic, and the Congressional Office of Technology Assessment, and his work has appeared in such trade publications as Online Access, Link-Up, Information Today, and Computerworld. Fluent in French, he has served as a translator for France Telecom and other companies.

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Chapter I

Introduction: New Media and the Search for a New Politics

Why has so little been done? Perhaps we shall be near to the truth if we say that little has been done because the question is too important, too hot to be handled. It is by a wide margin the most important feature of the whole system, the key to understanding the composition of American politics. Anyone who finds out how to involve the 40 million [nonvoters] in American politics will run the country for a generation.

-- E.E. Schattschneider (The Semi-Sovereign People (1960), p. 103)

A. Media Regimes: Citizenship in an Electronic Commonwealth

Participation in public affairs has long been thought to vary directly and positively with education and political information. Yet, despite the steady expansion of educational achievement and the social adoption of communications media on a previously unprecedented scale, the consumption of which now leads all other leisure activities, Americans are even less likely to vote than a generation ago. Since 1960 another 20 million people have joined the party of the nonvoters, which is far and away the most popular political grouping. Both comparatively and historically, participation in American elections is at its nadir. No other national electorate is as depoliticized in a nation that, a century ago, was far ahead of others in the expansion of its electorate, at the very apex of democratic development.

The media have taken much of the blame for this turn of events, along with the simultaneous decline of political parties. Americans spend more time watching television and have a greater choice among programming sources than the citizens of any other nation, and American media institutions are the most financially and legally

independent of any in the world. Why hasn't this apparatus resulted in the empowerment and expansion of the electorate?

The establishment a media matrix in which television is the dominant component has produced a fundamental change in what may be called the "media regime", a stable set of media institutions that determine the structure and the rules for political discourse and for the conquest of state power. Publishers exercised a similar influence during the print regime that preceded it, although the power the dominant media institutions (primarily the networks and cable operators) exercise in the current televisual regime differs both in degree and kind. Under this televisual regime, common in form in all industrialized nations, television has become the publicity apparatus through which power is both aggregated and exercised. Control over the televised image has become management of the public agenda, and a public that was once conceived of as all citizens has been displaced by its functional equivalent, the television audience.

The dynamics of this regime are familiar. Due in large measure to the nature of the medium itself, the visual has supplanted the textual. Political elites maneuver to gain access to massive audiences of largely passive receivers. Not only are the few who control access to the eyes and ears of millions able to determine who and what gets heard and seen, but they are also crucial to the maintenance of the primary communication pathway by which mass audience may respond to mediated messages--public opinion polling. This feedback loop is supported by media institutions to enhance their position as the principal intermediaries between political elites and the mass public. In imitation of politicians seeking a mandate so that they may claim to express the will of the electorate, media institutions engage in constant polling as a means by which they may legitimate their position as representatives of the popular will.

The core of the regime thus consists of televisual media that serve as the conduit of political information to mass audiences, with public opinion polling serving as the means by which these audiences may communicate both with the media gatekeepers and their political elites. While this *de facto* framework allows the distribution of political messages far more rapidly than the communication between elites and masses by the means of elections for representatives, it renders the *de jure* system of elections both rudimentary and archaic by contrast and makes the ballot box appear to be overrun by technological advance.

Despite its seeming permanence, the televisual regime is a specific historic construct. Like its predecessors, it is subject in at least some measure to social and political control, and is especially influenced by technological innovation. Because of the evolution of the media matrix, or the technological foundation of mass communication, the first steps of a still newer media regime may be seen even now, when televisual media exercise overwhelming dominance. The essential difference between televisual media and the new media that are now being built is the latter support some degree of interactivity, meaning they provide some means by which individuals (users, listeners, viewers, readers) may respond or react or communicate on networks combining the processing power of the computer with the communications capabilities and the ubiquity of the telephone. Under such a media matrix the distinction between sender and receiver may be broken down: individuals who may be classified as receivers in the televisual regime would not only have direct access to senders--were the new networks to be widespread--but they also would be able to communicate with each other. This would be the new interactive regime, with different rules for the conduct of politics and a different dynamic by which power would be both accumulated and exercised.

Can media-based interactivity be the technical foundation for a new media regime, and thus the eventual inheritor of the democratic tradition? If the ballot box has been marginalized, are there new means for people to participate politically? Can new media, by virtue of their interactivity or their bi-directional capabilities, establish a media matrix more congenial to discussion and participation, and therefore contribute to reinvigorating democracy? Can citizens be empowered by interactive media and thus regain a sense of citizenship in an electronic commonwealth?

Investigating the potential of new media to usher in a new politics has been limited to conjecture by the lack of an empirical foundation. Interactive media and the hope for an emerging interactive regime have been used as ways of criticizing politics as it is practiced under the televisual regime, while remaining too far in the future to be observed, analyzed, and themselves subject to criticism. What interactive medium has existed in an environment in which real political power is at stake?

B. Minitel: The "Model T of the Information Age"

The introduction in France of an interactive medium on a mass-scale offers an opportunity to reconceptualize theories of media effects, particularly upon political communication, to examine the medium's real (observable) contribution to democracy, and to investigate its actual service as an engine of social transformation. Since 1981 the French government has spent more than \$2.3 billion on its *Programme Télétel* in which six million small computer terminals called Minitels have been distributed without charge to telephone subscribers. The new medium is the world's first broadly accessible experiment with interactive computing, also known as videotex or the

online medium or computer communications in the US, as *viewdata* in the UK, or as *télématique* in France, rendered in English as telematics.¹

It is the world's largest laboratory in which to study the social and political impact of mass-scale interactive media. About a fifth of French households have a Minitel (a quarter in the Paris region) and more than a third (36%) of the French population report having used one in the previous month (France Télécom (1990) and Louis Harris poll, October 1991). An equivalent percentage of the US population would approach 100 million, a number that stands in sharp contrast to the fewer than two million who currently subscribe to online services. In industrial terms, more than 15,000 online services are available from private suppliers making use of this infrastructure. In 1989, the French national computer network Transpac carried more than three times the traffic of all the American public computer networks combined and France, a fifth the size of the US, accounted for more data traffic carried on public networks than all the rest of the nations of the world combined². The telematic industry surpassed the \$1 billion mark in annual economic activity in 1988 (Tersud, 1989). It employs about twice as many people as the French recording industry and about four times as many as the French film industry (Vedel and Charon (forthcoming) p. 135).

¹ *Télématique* is more generally any means of computer-based communications but as a practical matter most of what is written in French on the subject refers to Télétel, the French videotex system. See Appendix A for further discussion of the problem of linguistic precision.

² Transpac carried 1,200 billion characters/month compared with its leading American rivals, Tymnet or Telenet, who were carrying 100 to 150 billion characters/month (Gérard Simonet, *Directeur Général* of Transpac, personal correspondence, and Eric Arnum of International Resource Development Corp., interview.)

Minitel is what one observer (Malik, 1988) has called "the Model T of the information age," meaning the first generation of popular interactive media. Thus, the French experience with telematics provides a means of observing how the introduction of a mass-scale interactive medium changes established patterns of political communication, and to ask: What are the participatory opportunities presented by mass-scale interactive media, and how are they adopted (or not) by the institutions involved in political communication? Does the introduction of an interactive medium on a mass-scale provoke a change of media regimes?

The fact that this medium exists in France presents both opportunities and obstacles for exploring these questions. This investigation is not inherently a comparative work, nor is it an attempt to prove a hypothesis about contemporary France. It is also not an exhaustive study of Minitel as a medium or telematics as an industry or the status of computer communications in the United States. However, discussing political communication in France requires significant substantive review of a number of themes of importance to the study of modern France, as well as the description of what Minitel is, how it got there, and what people do with it.

To isolate the relationship between interactive media and political communication it is crucial to account for ways that French culture and political practice have structured the relationship. Differences between France and the US in terms of ideology and the practice of politics must be explored to hold the "France" variable constant, so as to be able to provide the proper context for conclusions about interactivity and its applicability for political communication. Thus, chapters below on the use of Minitel in the areas of electoral, governmental, and associational communications begin with introductions to French electoral competition and patterns of political participation, the relationship between central and local governments, and the massive demographic upheaval that has fostered a flowering of *la vie associative*,

or associational life. Considerable attention is also given to the evolution of the televisual regime as it exists in France so that, while references are made to the case in the United States, the structured, paired comparison is between French political communication before and after the introduction of Minitel.

And just as the adoption of Minitel must be understood in framework of France, so must it be seen in its technological context as a rudimentary, first generation device. While Minitel as a medium enjoys a very high public profile that places it on the level of other major communications media, Minitel is used by far less than everyone, and the part of the Minitel audience using it to exchange textual messages is quite heavily concentrated. Because of this, interactivity is defined in great detail and separated into, on the one hand, an element of the device in which bi-directional communication is manifest and, on the other, a quality of a communications exchange. This is important so that the focus can be placed upon the degree to which interactivity as a technical attribute is translated into genuine political interaction. But Minitel's low level of technical sophistication and the difficulty of using it as a communications device are important limitations on the generalizability of the observations reported here.

Virtually everything that has been published in English is concerned either with how Minitel got there and whether it or not it was a good investment for France Telecom to have made, such as Vedel and Charon (forthcoming), Thomas, Vedel, and Schneider (1992), Kramer (1991), Housel and Davidson (1991), Allen (1988), Bates (1988), Branscomb (1988), Mayntz and Schneider (1988); or concerned with who uses it, what they do with it, and what this means, such as Rogerat (1992), Feenberg (1992), Jouët, Flichy, and Beaud (1991), Miller (1990), Pailliar (1989), Devèze (1988), Hart (1988), Marchand (1988), Mayer (1988), Aumente (1987), Charon (1987), and Durand (1983). While the history of French telematics is recounted

herein (Chapter III, drawn from French studies and commentaries), how Minitel got to be there is not a question of primary concern here. The relationship of the medium to its audience is also explored below before investigating its political applications. But the purpose of this inquiry is to find out if there are concrete and observable changes to the conduct of democratic politics as a result of Minitel's presence as a part of the media matrix. One doctoral dissertation in French (Perot, 1988) has been concerned with this topic (and is very much opposed to telematic-based political participation), but no other published materials have taken up this question.

In part, if the question of how political communication could be changed by the introduction of interactive media has received more attention in the United States, as discussed below, it is because of cultural predispositions that play a role in how we look at things like technology and political participation. Both are viewed quite differently in France. As a result, the questions behind this inquiry are decidedly American, even if the fieldwork isn't. We are, in essence, inverting Tocqueville by looking at France but thinking about America.

C. Participation, Media, and Social Change: The Origins of the Inquiry

Hope that the televisual regime may be either reformed or overthrown by the introduction of some degree of media-based interactivity comes from the study of media effects, and from scholars who make media evolution the principle empirical reference for the emergence of a so-called post-industrial society, as well as from scholars seeking to redesign the mechanisms of political participation with the help of new communications technologies, sometimes known as "teledemocracy." Each of these areas poses questions that relate the evolution of media and political institutions which may be addressed by observing the French experience with Minitel.

1. Participation and Democratic Theory

Our understanding of the role of mass participation in a democracy can be seen as a continual adjustment of the balance between how much of it is desirable relative to the amount of it that is possible, between new normative possibilities and empirical realities. As Cronin (1989, p. 8) writes, pleas for more democracy run from proposals to ease voter registration procedures all the way to "two-way, interactive, electronic town meetings and teledemocracy technologies." The televisual regime may be seen as inhibiting participation by granting overwhelming dominance to incumbent office-holders relative to all but their wealthiest challengers, by virtually eliminating uncertainty as to the outcome of most elections through constant polling, and by displacing some of the traditional functions of political parties, such as candidate recruitment and control over the public agenda.

A media matrix that turns the technical capacity for interactivity into political interaction could serve to renew the citizen's sense of engagement in public affairs. Yet, superimposed upon this image of interactivity as a tool of empowerment is its inverse, in which the participation of the broad public in referenda or issue-oriented participatory mechanisms is rendered even less meaningful than casting a ballot for parties or their candidates. The danger of the rule of the ignorant through unstable, instant majorities is the dark shadow of this electronic participatory democracy, and one that has at least an equal chance of being realized.

The French creation of mass-scale interactive media provides a concrete experiential base on which to study the potential for teledemocracy since it is not a single participatory experiment, but a permanent improvement in the platform for public communication. Moreover, the French themselves raised it as among the most important criteria upon which the telematic program should be judged. The intellectual foundation of the telematic program was a report on the computerization

of society (Nora and Minc, 1978) written for the French president. The authors called for "a deliberate policy of social change" that would "utilize the power of telematics" to promote "adaptability, initiative, and participation." Does the introduction of interactive media represent a significant change in the framework within which citizens and the state communicate with one another? Does it threaten to destabilize established decision-making procedures and introduce new means of conquest and control?

2. Theories of Media and Their Effects

The creation of interactive media undercuts a traditional division of the discipline of communications into "personal" and "mass." Interactive media render this distinction quite untidy³ and call into question the very definition of both personal communications and mass media. Interactive media are at once both and neither; a communications exchange is quite unlike unmediated face-to-face social interaction since it is mediated and impersonal. Neither are interactive media mass media in the usual sense of the term. Other mass media are "mass" in three senses: the wide distribution of a device by which an undifferentiated message may be delivered to huge audiences. Minitel is a mass medium only in the physical distribution of the hardware. Because it is interactive, neither the number of users or the messages they receive with it are massified or alike. As a result, many of the theories of media effects and the methods developed for studying them are inappropriate for the study of a mass-scale interactive medium (See Appendix B).

The underdevelopment of interactive media in the US inhibits the search for the displacement of the televisual regime by a new interactive regime in this country.

³ This division has no doubt also been unravelling for reasons unrelated to technological change, the intellectual and methodological development of the field being the foremost.

The French experience with telematics, however, offers a way of finding out how the ability to engage in some measure of bi-directional communication creates a new public space for social and political interaction, and of exploring its rules, procedures, ethos, and general applicability for social and political interaction. What is the nature of the public space created by the introduction of this new medium, and is it a fecund or sterile field for political discourse?

3. Media Evolution and Theories of a Post-Industrial Society

Also of essential importance for observations about media and society, in which politics plays a small but critical role, is scholarship concerned with broader theories about the historic development of society, and especially that which assigns a crucial role to the interaction between technological change and social development. Many of the most sanguine evaluations of the revolutionary potential of new communications technologies come from those who posit a new post-industrial society in which the development of new media is an essential dynamic in the creation of a new society.

The French experience with telematics is the foremost example of state intervention in the creation of a new medium in the twentieth century. Minitel is a concrete example of the type of medium that the post-industrial prophets have endowed with society-changing power. Seen in this way, the Minitel is the world's first experience with mass-scale interactive computing, the first of the long-forecast "information utilities."⁴ It is the telecommunications equivalent of the Apple II, the first popular microcomputer, which allowed information processing to reach large new audiences and became a platform for developers of software applications. Only five million Apple IIs were ever sold, but the industry thus launched is now a \$60 bil-

⁴ The term was coined by Sprague (1969).

lion/year enterprise. There are six million Minitels--virtually all of them in France--and the services built for them are the equivalent of the basic set of applications developed for the Apple II and improved upon in subsequent generations. Perceived in this light, France is the workshop in which the outlines of the information society should be visible.

But is the widespread usage of computer-based media an independent force that produces social change? What is the role of the state in managing innovation when so many interests are involved? And what are its tools of intervention? Is there an emerging new epoch in which information becomes society's lifeblood and interactive media its circulatory system?

D. The Organization of What Follows

The next chapter reviews the literature on media effects, democratic theory, and technology and social change which have served as the well-springs for the concept of media regimes, which is given greater depth and definition. It also defines interactivity and develops a set of criteria by which the degree of interactivity may be judged. Chapter III introduces the reader to the French version of the televisual regime and its origins. It then looks at the bureaucratic and industrial imperatives that gave birth to of the French telematic program, and the relationship of the medium to its audience. Chapters IV to VI report observational data in the areas of electoral, governmental, and associational communications. Chapter VII discusses the relatively minimal effects produced by the introduction of telematics, despite the breadth and reach of the medium in France, and the reasons for this. Chapter VIII offers some conclusions on how interactive media may serve democratic participation, and some fundamental obstacles preventing it from doing so. Problems associated with translating French to English and with studying new media with theoretical and

methodological tools built for the study of non-interactive media are discussed in appendices.

Despite hopes to the contrary, Minitel turns out to be disappointing as a revolutionary force. Political applications are a very marginal part of a minor medium, a fact that is unlikely to be changed even if every household had a Minitel. Minitel is at least as important as a symbol to be exploited by those who wish to be perceived as responsive and up-to-date as it is as a medium of communication.

Still, properly understood, the French experience with telematics reveals ways interactive media can be used to improve political communication. In devising strategies for effectively intervening in the construction of more robust democratic societies, the dynamism of media evolution still contrasts starkly with the largely static social and political environments. Although many hopes for ways of exploiting media development to resuscitate democratic participation have been misplaced, some principles on how to go about it--and how not to go about it--are visible. Exploring the frontiers of mass media and democratic participation addresses and extends the boundaries of the art of the possible.

Chapter II

Media Regimes and Interactivity: A Literature Review

And since for contemporary man reality is a continent visited less and less often and besides, justifiably disliked, the findings of polls have become a kind of higher reality, or to put it differently: they have become the truth. Public opinion polls are a parliament in permanent session, whose function it is to create truth, the most democratic truth that has ever existed. Because it will never be at variance with the parliament of truth, the power of imagologues will always live in truth and although I know that everything human is mortal, I cannot imagine anything that could break this power.

-- Milan Kundera, (Immortality (1991), p. 129)

The dominant medium is the technological foundation of a set of institutions that govern political communication. This techno-political system is the framework within which the conquest and exercise of state power is conducted. While broadcast media and its institutions are accused of concentrating power in the hands of a small number and of distorting political discourse, so-called new media have the alleged potential to displace the social relations and patterns of communication presumed to have been either built or reinforced by broadcast media. The principal characteristic that defines the newness of new media is their interactivity or bi-directional capabilities. This new technical capacity is the basis on which hopes have been hung for a media matrix better suited to active participation, and one that would become the primary technological infrastructure for the "information society."

The central advantage to conceiving of the dominant medium as forming a virtual regime is that it provides a means of identifying and studying regime change. It is analogous to regime change as it is traditionally thought of, in which a fundamental and explicit restructuring of institutional arrangements is forged through

conflict. In the case of change in the political regime, a social class that has increased in wealth, status, and prestige ultimately forces the political institutions to be recast to reflect its increased power, against the rearguard action taken by a class determined to defend its privileges.

A theory of media regimes offers a somewhat analogous interpretation of regime change, with some important exceptions. Instead of overt social conflict, a theory of media regimes substitutes technological innovation and adoption. Thus, the print regime of the early decades of the 20th century was displaced by the invention of broadcasting and the subsequent flow of audience power to broadcast institutions from print-based media, which nonetheless continue to exercise a degree of residual influence.

The power of the currently dominant medium, however, is of a different nature than that held by publishers during the print regime. Even the most powerful media institutions in previous eras didn't have the ability to control political life that they do under the current set of institutional arrangements. It is as if the plumbers were no longer content to fix the pipes but assumed control over the temperature, duration, and timing of people's bathing.

In our current media regime citizens speak with an undifferentiated mass voice. What are falsely termed opinions (in reality, momentary moods) are captured in polls, which are conducted and reported by news organizations to enhance their legitimacy as the principal interlocutor of those in power. The compelling question is whether or not it is possible with interactive media to build new institutional arrangements that incorporate other forms of dialogue and action. Due to the destabilizing force of media-based participation--either alongside or outside of the institutions designed to turn public opinion into policy--our established decision-making apparatus appears to be in danger of either being overrun, or worse, of atrophying into an irrelevant

appurtenance. The introduction of media-based interactivity thus provides a crucial test of control. How will this new capability be built into political decision-making? Whose power will be enhanced, and whose diminished?

This chapter first examines the origins of the concept of media regimes and its theoretical underpinnings, identifying research questions from each of the three fields concerned with the relationship between media and politics. It then turns to a review of what has been written about interactivity and interactive media, ultimately building a measure by which the relative degree of interactivity may be assessed.

I. Origins of a Theory of Media Regimes

Explanations of how communication media influence social and political life are almost as widespread as proposals to harness their alleged powers or to channel their evolutionary path in directions favorable to democratic participation. With virtually each spin of the earth there is a new warning on the damage being done by electronic media, or another encomium to their revolutionary potential, or another declaration of a new epoch in which the development of communication media serves as the principal axis of social change.

This conception of the media as forming a virtual regime within which public affairs are conducted comes from the study of media and their effects, but is of value as well in explaining how they are seen as a revolutionary force among some who study democracy and others who wish to see a new post-industrial era.

A. Media Effects: The Televisual Regime and its Critics

The search for the effects of media upon social and political behavior continues to reflect the origins of the inquiry: the overwhelmingly dominant approach has been to investigate media content to try to relate how it is taken up by audience members. Since its beginnings, however, both the situational context and the level of analysis

of research on media effects have changed considerably. Examining the different schools of thought by which scholars have sought to explain media effects is more than an intellectual curiosity, in that the different approaches reach fundamentally different conclusions on the nature of the impact, or even if there is one.

Research on political communication originated in the study of the effect of propaganda upon public opinion. Herbert Lasswell's research led him to posit a neo-Freudian "hypodermic needle model" that attributed a direct effect of media messages upon their audiences (Lasswell, 1927 and 1935). However, while plausible in the context of mass-scale mobilization for war, the direct effects model failed to be validated in other situations, notably in political campaigns. Campaigns were found to activate and reinforce latent predispositions based on other factors such as partisanship or socioeconomic status rather than to directly determine voting choice for more than a small percentage of the electorate. This led to the two-step flow theory, according to which opinion leaders mediate the influence of the mass media by selectively passing along information (Lazarsfeld, Berelson and Gaudet, 1944; Berelson, Lazarsfeld and McPhee, 1954; Katz and Lazarsfeld, 1955). Another significant contribution to the characterization of the individual as an active processor of media messages identified personality and social factors as elements that served as barriers to persuadability (Hovland et al, 1949 and 1953).

The conflicting findings of media impotence and omnipotence were reconciled by Klapper's (1960) phenomenistic or reinforcement theory, which argued that the media reinforce rather than cause social behaviors. In reinforcing the effect of other, more powerful factors, Klapper viewed the situations in which mass communication produced direct effects as marginal, atypical, and unusual. Moreover, the observation that message recipients refuse to acknowledge messages that conflict with their predispositions as a way of minimizing cognitive dissonance (Frost, 1961) led to the

uses and gratifications paradigm, by which individuals are seen engaging in a high degree of processing of messages, accepting and retaining only those that support their established perspectives (Blumler and Katz, 1974). Since those most reliant upon the media are the least partisan citizens, political campaigns are geared at overcoming perceptual barriers and capturing that small number of "swing voters" who can change the result of a close election (DeVries and Torrance, 1972; Meadow, 1980).

But even with these refinements of theory and approach, the effect of messages upon individuals continues to be an elusive relationship to establish. Patterson and McClure (1976) and Goodhardt et al (1987) are unable to find television content to have fundamentally changed attitudes, and thus conclude that it is relatively impotent. However, as Rubin (1986) points out, audience-centered research is exclusively concerned with media consumption by individuals rather than with other sources of media influence, such as how institutions adopt media to suit their needs and how the media create perceptual environments that structure human interaction. These institutional and environmental approaches provide needed balance to individual-oriented theories.

Looking instead at how public debate is managed by journalistic institutions has led to the gatekeeping theory, whereby professional communicators are seen to manage and control the messages disseminated via the mass media. White (1950), Westley and Maclean (1957), and Cohen (1963) offered the perspective that while the media may not successfully determine what people think, they are exceptionally successful at determining what people think about. Others have reinforced this finding, such as Benjamin (1982), who attributes to media the role in managing public attention formerly held by political parties. Seymour-Ure (1974) and Patterson (1980) find that the values of journalists are most important in determining media content, which Weaver (1987), finds quite effective in setting the public agenda. The agenda-

setting and gatekeeping perspective show how media institutions preselect the universe of messages selected by individuals and set the terms of the public debate (Epstein, 1973; Barnouw, 1978; Gans, 1979; Gitlin, 1980 and 1983). While these approaches focus attention on institutions rather than individuals, media institutions are only one among many other institutions involved in political discourse, and the message content being considered--news--is a crucial part of politics but by no means a limit to what can be considered political.

At a still higher level of analysis are those who characterize media as conceptual environments which not only influence social and political organization but the organization of knowledge as well--not only **what** one thinks or thinks about, but **how** one thinks about them. This branch of understanding media effects was founded by Innis (1950), who attributed a medium's impact to the nature of the physical matter it was based upon, and McLuhan (1964), to whom a medium's effects were determined by the change it led to in the mix of sensory perceptions. More recent approaches in this tradition include Meyrowitz (1985), who attributes the effects of mass electronic media to their ability to break the boundaries of private or "off-stage" discourse that are possible in a print-oriented culture, and Postman (1985), who sees the linearity and inherent rationality of print impoverished and ultimately undermined by electronic media. Yet, these environmental-oriented approaches, while raising the question of the particular nature of various media as opposed to the content of their messages, give insufficient emphasis to the fact that the mediated public arena is a specific, time-bound historic construct determined as much by willful human intervention as by the medium's natural or inherent characteristics.

It is possible to reconcile these different approaches to media effects by seeing technologies of communication as ways of manipulating and transforming human consciousness and providing a framework for social discourse and for the practice of

politics; in essence creating regimes within which public affairs are conducted. A theory of media regimes at once unifies the disparate theoretical approaches to media effects and provides a way of understanding the relationship of media and politics.

Seen in this light, the current institutional arrangements can be understood as a televisual regime, in which political discourse is dominated by television not because it produces immediate affective changes in viewers, but because the overwhelming size of its audience, and in particular the means this medium offers for piercing the perceptual barriers of individual audience members. Messages are thus constructed of a size (small) and shape (highly visual) that the medium favors, and focused upon that part of the audience that has relatively fluid partisan predispositions. Institutional actors such as parties, office-holders, administrative officials, and candidates seek to understand and exploit the fundamental rules of the communications environment (both the nature of the medium itself and those who control access to it) as a way of reaching and influencing the part of the audience that is susceptible to persuasion.

Moreover, although this conception of media regimes has seldom been overtly stated as such, it can be found to be implicit in a number of studies of media and politics. Comstock (1980) ascribes the political power of mass media to the establishment of a framework within which elections are contested that has changed the conduct of politics. Mickelson (1972) also finds that television's impact lies in the way its adoption by political professionals has changed communications practices. Similarly, Ranney (1983) finds a televisual regime based on the medium's need for pretty pictures and the creation of a pseudo reality that is nonetheless "real reality" for the overwhelming majority of viewers and the conceptual framework within which they behave politically. Lang and Lang (1984) also focus on how politicians and institutions accommodate themselves to the "refracted" image of political events that have been structured according to the presumed impact of television as the leading

means of communicating them. The assumptions that have governed television's use are the result of the fact that people have come to believe in the medium's effects. These assumptions are thus real in their consequences because political actors behave as if the medium has inherent qualities.

The idea of media regimes is also found in discussion of "ages" or "eras" in which a particular medium becomes the dominant form of political discourse, such as Neustadt (1982), DeFleur and Ball-Rokeach (1989), and Rogers (1986), who sees the current time as the "interactive era." But instead of seeing these periods as virtual epiphenomena of technological developments, characterizing them as regimes implies that they are born in conflict, have their own set of rules, favor particular social forces, and in turn are overthrown, as with the transition from print-based media to a broadcast-dominated communications environment (Eisenstein, 1979) or the conquering of the radio audience by the new medium of television. The idea is also contained in the concept of regulatory regimes that govern media usage (Balle, 1990), but as media regimes the structure they give to political and social interaction is only partly accounted for by the regulatory apparatus.

If there is a new age or era, according to this line of reasoning, it is provoked by a fundamental change in the technological infrastructure of mass communication and a resulting behavioral shift as large audiences adopt the new medium and integrate it into their patterns of communication. Thus, since the French adoption of Minitel is the first case in which mass audiences have access to an interactive medium the questions posed by the study of media effects are inductive: how do the French adopt this medium, and what role does it play in political communication? Is there an interactive regime struggling to be born?

B. Teledemocracy: Overthrowing the Media Regime

Provoked by the presumed dysfunction of democratic institutions designed to conform to 18th century limitations on transportation and communications, another body of scholarship seeks to understand the rules of the televisual regime not just to criticize them but as a prelude to writing new ones based on a different technological foundation.

As MacPherson (1985) puts it, a constitution or any set of institutions that structure communications and legitimate the outcome of the decisions they reach may be considered a "political technology." In particular, democracy (in the West) is a set of procedures rather than outcomes. The introduction of new means of social and political interaction allow new procedures and patterns of interaction to be developed. The limitations provided by time and space that provide the unstated assumptions for the design of democratic institutions are revised by the introduction of a new medium. Changes in the media of communications thus challenge the foundations upon which democratic institutions rest.

Curiously, despite the growth of mass media both democratic theory and practice have devolved over time and come less and less to rely upon the participation of a mass public, particularly in the United States. To Jean-Jacques Rousseau and John Stuart Mill, the first to try to build a modern theory of democracy, it was justified both as an efficient means (the outcome of a democratic decision would be "better") and as an end in itself (participation in public life was necessary for the full development of human capabilities.) However, the work of early 20th century investigators such as Mosca, Pareto, and Michels undercut these requirements for broadscale popular participation by finding that even the most ideologically-committed democratic institutions were still ruled by elites. By mid-century this theory of democratic elitism had in essence become liberal democratic theory in which

widespread participation was considered either not possible or not necessary, such as Schumpeter (1942). In the post war era when voting behavior was empirically analyzed, liberal democratic theory was further adjusted so that competition among elites was not just a conceptual substitute for mass participation but actually came to be preferred by many democratic theorists. "Too much" participation came to be considered either dangerous and potentially destabilizing (Lipset, 1963) or abstractly desirable but impossible as a practical matter (Dahl, 1956).

More recently, provoked in part by the development of new techniques of mass communication, radical democracy has begun to re-emerge. This democratic variant rejects liberal democracy's instrumentalist justification as too narrow and seeks to reconstruct the ethic and practice of mass participation. The ability of emerging media to allow bi-directional communication has been the technical foundation seized upon by this new wave of radical democrats. To scholars such as Enzensberger (1970), "network-like communications models built on the principle of reversibility of circuits" could lead to political empowerment. Wolff (1970) argued that "the obstacles to direct democracy are merely technical" and that the changes he was proposing would lead to a heightened sense of personal efficacy and involvement on the part of individuals whose shared responsibilities would lead to a stronger sense of community and common destiny. Empirical experiments in "participatory technology" were launched in the 1970s to test "mass dialogue and response" systems, such as those conducted by Etzioni (1972, 1975).

These researchers could not challenge Michels' "Iron Law of Oligarchy." Laudon (1977), for example, concludes from his investigation into telephone conferencing as a medium for political decision-making that no technology designed to aid political empowerment can disrupt the domination exercised by the most politically-skilled and organized groups in society. Yet, attempts to promote political

empowerment by the means of new media have continued such as Barber (1984) who sought to use interactive communications systems to recapture the pleasures of common discourse and decision-making that have been lost by the majority of citizens of liberal democracies.

The key problem, however, faced by those who would study changes brought about by the evolution of media is the lack of cases to study in which genuinely new media are introduced into existing social and political systems so that whatever adjustments are brought about can be observed, classified, and interpreted. The study of relating changes in the technical capabilities of the apparatus of mass communications to the evolution of the practice of politics has seemingly been trapped: describing allegedly new media of modest political import (most of which are simply new ways of distributing established media like video) such as Abramson, Arterton, and Orren (1988), or participatory experiments that have little relation to new media such as Arterton (1987), or reduced to speculation and prescription, such as Barber.

Thus the evolution of electronic media has been looked to especially by those who conceive of democracy as requiring rather than merely tolerating mass participation. This normative claim--that democracy ought to and could function better than it does--underlies both the radical democratic critique of liberal democracy as well as much of the teledemocracy literature. Many have seen an opportunity in the development of new media for a renewal of the democratic spirit and an intellectual re-invention of democracy in the post-modern state. But alternatives worth offering continue to confound radical democrats, as the problem of how to ground a study of new media's potential remains a problem for teledemocrats. Is there any basis to hopes of radical democrats that the classic problems of democracy can be solved differently through advanced means of communications? How can the potential application of new media be assessed and evaluated? Is this new medium a useful

mechanism for the organization of dispersed interests and for the articulation of political demands, and thus a source of strength for those on the periphery of power? Or do these new tools of communication merely increase the administrative and managerial power of elites and improve their ability to manipulate consent?

C. A New Era in Capitalism: The Information Society as a Media Regime

Finally, a third source of scholarship concerned with media evolution places it in a context of broader historical cycles concerned not just with the effects of communications technology upon social and political behavior, or patterns of democratic practice and the evolution of democratic theory, but with the development of material production in the advanced capitalist societies.

Interactive media is among the most visible result of the blurring of boundaries between some of capitalism's most dynamic industrial sectors: telecommunications, computing, publishing, and entertainment at the core and financial services, manufacturing, retailing, research, and real estate, etc. on the periphery. Attempts by manufacturers of hardware (consumer electronics, computing and telephone equipment) to control the culture industries (broadcasting, publishing, entertainment, games) are a growing source of activity and conflict in contemporary capitalism. Not all of the literature that forecasts a coming "information society" or "post-industrial age" are founded upon the observation and projection of changes in the media of mass communication and the technologies of information processing. However, a number of media-centered analyses have become influential, and are the source of some of the most audacious claims of the transformative power of new media.

The "communications revolution" is a common empirical reference for theories of a new "information society." Media evolution is represented as an independent source of change that is too rapid and robust for our current decision-making institutions to channel and control (Martin, 1978; Williams, 1982; Dizard, 1985).

Often, media are seized upon as the engine of change, and positive outcomes for democratic practice are represented as the inevitable result of the forthcoming hegemony of interactive media. Thus, Toffler (1980, p. 351-2) asserts that "Third Wave civilization will rest on interactive, de-massified media," and Naisbitt (1982, p. 160) claims that "we have outlived the historical usefulness of representative democracy and we all sense intuitively that it is obsolete." Stonier (1983) foresees convivial computer systems and networks of shared knowledge building a greater sense of community and strengthening democracy.

A substantially more structured intellectual framework for understanding technological change and the resulting social adjustments in advanced capitalism is Beniger (1986) who shows that the growth of information and communications technologies follow the substantial marketing and distribution problems faced when mass production techniques began to be applied on a large scale. Thus the technologies of information and communication are seen as solving a formidable problem for capitalism's strategic planners rather than evolving on their own by some kind of natural process of scientific and technological advance.

Media evolution takes a subordinate role in explanations of post-industrialism based on industrial outputs and job categories (Machlup, 1962; Porat, 1977; Rubin and Huber, 1986) or the change in human values (Bell, 1967 and 1973). However, the creation of myths built upon changes in communications media are vital to a fourth way of explaining post industrial society and all the intellectual hype surrounding it. From this perspective, media changes are presented as symbolic of an inevitable modernity to which individuals must conform. It is these representations more than any inherent characteristics of the media themselves that are the most important sources of ideological innovations by the dominant social forces.

In this category there are two schools, the first being a Marxist school that sees this as an activity on the part of the dominant social class to create myths that serve their interests. These communal images of the future present sacrifice on the part of some as a necessary adjustment. In this view, those in control of social and political institutions in capitalist societies create and promote these images of imminent nirvana so that their interests are accepted as ineluctable historical forces (Morris-Suzuki, 1988; Mosco, 1982 and 1988). However, even non-Marxists who do not attribute this myth-making process to the interests of a particular social class nonetheless view it as an especially powerful way in which certain paths of social and political development are favored (Polack, 1985; McQuail and Siune, 1986; Rozak, 1986). This interpretation has found support in France from Breton and Proulx (1990) and Sfez (1988) who see in the birth of the study of communications a means by which a new ideology based on science has supplanted now-discredited political belief systems grounded in class or race.

This line of investigation requires that we accept Minitel as the first mass scale interactive medium and examine its genuine society-changing powers. France is the first society in which the technological infrastructure that is represented as indicative of a fundamentally new epoch in social relations is accessible to mass audiences. What concrete indications are there of vast social transformations as a result?

D. Technological Evolution and Changes in the Media Regime

To summarize, interpreting media changes as a shift in regimes similar to a change in political regimes has three principal advantages to other means of studying the political impact of the introduction of a new medium.

First, seeing them as virtual regimes best describes the impact of mass media. Even when it is impossible to find a direct impact of media content upon viewer attitudes and behavior, a change in the way that politics is conducted is profound.

Broadcasting's achievement of a position of dominance within the media matrix changed the "rules of the game." Has the introduction of the capacity for interactivity into the media matrix produced a similar change in the way that individuals inform themselves or behave politically?

Second, interactivity has become invested with the hopes of those who would actively redesign the current media and political institutions and their interrelationship.

What are the possibilities that the fundamental requirements of democracy may be met in new ways by the adoption of interactivity on a mass scale?

Finally, a number of observers of the development of capitalism have seized upon a "communications revolution" as the independent variable provoking a change in social relations, with politics being only one part of this larger social evolution. For this to be true, the first society in which interactive media is available on a mass scale would show the desired signs of transformation, such as the decentralization of decision-making through the exploitation of interactive media. Is this, in fact, observable? Or have the epoch-changing powers of media evolution been over-rated?

To answer these questions it is essential that the concept of interactivity be fully explored, especially in order to separate it from its particular manifestation in the French Teletel network. What is interactivity, and how can it be measured?

II. Interactivity and Interactive Media

Interactivity is "the most distinctive single quality of the new media," (Rogers (1986), p. 5), the principal defining characteristic that gives them the quality of newness (Rice (1984), p. 35), and the reason that new media are "on our side." (Toffler (1980), p. 406) It is far more than a technical innovation--the creation of electronic communications channels that carry messages in more than one direction--but one of those rare terms whose virtually imperialistic conquest of both popular and

analytic discourse (Lauraire and Rabaté, 1985) make it one of the buzzwords of the age. In its essence it is a *fin de siècle* update and mixture of "participation" and "feedback," although "new and improved" by its ability to invoke the myth of all-powerful electronics (Ancelin, 1984). Like these predecessors, its very ambiguity contributes significantly to the remarkable breadth of fields in which it has been adopted as a concept.

Fortunately, its presence or absence in a channel of communications is fairly easy to describe, thus turning the definition of an interactive medium into a manageable affair. Yet, as Bretz (1983), Chen (1984), Rogers (1986) and Rafaeli (1988, 1990) correctly insist, interactivity is not principally an attribute of a particular channel but, more crucially, a characteristic of communication between two or more interlocutors that may be present in various degrees in a wide range of settings. Accordingly, the more important question is how this technical framework that creates the ability for people to communicate structures that interaction, and most importantly of all whether or not these capabilities are exploited or not. Understanding the nature of the environment--or virtual space--created by this technical apparatus, its essential attributes, and how they have or have not been integrated into the communications functions of political institutions demands a definition of interactivity as well, which is a far more difficult task.

A. The Genesis of a Linguistic Innovation

Due in part to this lack of precision in the application of the term, interactivity has been identified as the characteristic of new media that gives it the potential for making human contact dramatically different from the social relations supported by linear media. This unexamined projection of a technical characteristic into the realm of human relations is found in a vast number of settings, from the social criticism of Illich (1973) to the popular sociology of Toffler (1980). Of concern to us here is the

"second wind" given to "speculation about electronic democracy" by the development of interactive systems, which are seen as a "tool of democracy" (Lauraire and Rabaté (1985), p. 58). As Weckerlé (1985, p. 83) says, with both humor and reason: "Do you want to be elected, well-known, adulated? Make yourself a promoter of a new local democracy and a new citizenship by 'interactivity.'" But what is it, and what does it have to do with democracy?

Lauraire and Rabaté (1985) analyze 200 texts that use the theme, and report that the word comes into widespread usage in French well before it does in English, due to reasons that the authors attribute to French industrial policy and political economy. Expansion of the use of the term "seems largely attributable to a particular social group, that we can quickly express as the Telecommunications Administration" (Rabaté, Lauraire, and Kretz (1985), p. 9). In a period of domestic development of not just telematics but also of cable television (that was to be bi-directional), both of which were seen to have export potential, "interactivity appears as a slogan that defines the trademark of cable networks *à la française*" (Lauraire and Rabaté (1985), p. 21), the unmistakable message being that "the difference of our networks is their interactivity" (p. 53). As Kretz (1985) points out, the term "seems to have essentially appeared in France toward the end of the 1970s as essentially a means of differentiating Antiope from Teletel, which is to say teletext from videotex, otherwise and since then officially named respectively interactive videography and broadcast videography."

Yet, while France Telecom's commercial interests may have stimulated adoption of the term in France, it seems in hindsight to be more a matter of the agency exploiting the resonance the term enjoys by resting on the "right" side of the duality between passivity and activity. Its "remarkable fortune" as a "magic word" (Lauraire and Rabaté (1985), p. 18, 60) comes, as Monnet (1985) underscores, from

the implied contrast with television viewing. "The telespectator," she writes, "doesn't seem to fit the model of the responsible citizen" in an era in which terms like participation and *autogestion* (self-management) became terms of ideological discourse that shared wide social consensus. Interactivity, which "attempts to revive the sleeping spectator," provokes the mass public to respond favorably to it "simply not to be taken as imbeciles, because they know that it is the right answer" (p. 318).

Despite its passage from functional to discursive usage and its investiture with ideological meaning, attempts to provide a rigorous definition of interactivity have been few: like news or pornography it is generally considered something that you know when you see it, even if precisely defining it proves elusive. It is difficult (and perhaps premature) to synthesize the literature on interactivity into a paradigmatic reference, yet pieces of a viable definition can be gathered from many sources.

B. Interactivity as a Physical Characteristic of a Communication Channel

Table 1 is useful in defining an interactive electronic medium as a channel for communication that is capable of supporting the exchange of messages among two or more interlocutors, who need not necessarily be human. All of the media in the second row are interactive, and our investigation is concerned with the final column in which users may exchange text and or images. This location describes where telematics (or videotex, or computer communications) is found. "When communication (the transmission of messages) operates in two directions, in either inter-individual or inter-group form," write Lauraire and Rabaté (1985, p. 60), "this is interactivity."

Table 1

Electronic Media Typology

	<u>audio</u>	<u>video</u>	<u>text/graphics</u>
<u>One-way</u>	radio broadcasting audiotex	TV broadcasting TV cablecasting	video bulletin boards teletext X*Press Info Service
<u>Two-way</u>	telephone CB radio	teleconferencing	computer bulletin boards and conferencing, electronic mail, database access, electronic transactions, facsimile
<u>Storage</u>	audio tapes, records, Compact Disks (CDs), phone answering machines	videocassette recorders (VCRs), CDs	computer disks (fixed and removable), CDs

Among the advantages of beginning with a definition of interactive media and then using it as a place to search for interactivity is the establishment of a distinction between interacting with media and interacting through them. Thus excluded are interactions between communicators such as radio and television stations with their audiences through other media, as in Rafaeli (1990). Although letters to the editor or to a radio or television outlet allow readers, listeners, and viewers to send messages to those who control the communications channel, they can only do so through a different medium. The creation of pseudo-intimacy--the phenomenon of para-social interaction by which audience members feel they "know" people whose images are broadcast to them, introduced and defined by Horton and Wohl (1956)--is also excluded. Although the illusion of interpersonal communication may have powerful effects, no return channel is present. Thus, both interacting with media and para-social interaction are types of interaction involving media, but neither concern interactive media, which is to say the physical foundation for interactivity.

A second advantage of locating the media relative to one another is that it shows what telematics is. In the case of radio and television both the media and the physical device share the same name; telematics, on the other hand, is what one "gets" with a communicating computer terminal. Much of what passes for new media are new ways of distributing established media that essentially fit within established regulatory frameworks. As Mazzoleni (1986, p. 100), writes

telematics, on the other hand, is a completely new adventure, liable to stimulate unprecedented social and economic demands and behaviours on a wide scale. Everything is new: the medium and the content; the hardware and software; the offer and the demand.

Among all the media changes that are to change daily life, he continues, "telematics undoubtedly occupies a primary position."

By starting with a channel-oriented definition interactive media may be profitably be compared with linear media, as done by Markus (1987) and Ball-Rokeach and Reardon (1988). Markus makes the important point that the adoption process of an interactive medium--which she defines as "a vehicle that enables and constraints multidirectional communication flows among the members of a social unit with two or more members" (p. 492)--faces a critical mass problem that is vital to its successful implementation. Usage of an interactive medium demands "reciprocal interdependence" that makes them highly sensitive to community-level behavior that individuals have difficulty influencing. As a consequence they are far more difficult to establish and sustain than linear media. Since "the collective outcome differs from a simple aggregation of individuals' values, attitudes, and behavioral predispositions," (p. 505) the individual is not the proper unit of analysis in understanding adoption, which instead should be conducted at the community level.

Ball-Rokeach and Reardon make the distinction between the monologic form of mass communication, the dialogic form of unmediated personal communication, and

what they call the "telelogic" form, that "involves alternating dialogue between people at a distance who use both conventional and unconventional language and electronic or optical channels" (1988, p. 135). The interaction potential of the telelogic form (they use Minitel as their example) place it between the communications patterns observed in mass and interpersonal settings, and "even in their embryonic state, appear to have the potential for development of new ways of organizing personal and social life." Because "a credible degree of interactivity is possible," this type of medium transcends the limitations of the interpersonal form. It offers equality of conversational control, unbound the geographic and temporal constraints of physical co-presence.

Nor do they have the limitations of time-boundedness, limited feedback, low potential for interactivity, and low potential for equality of control of the mass form that limit its organizational capacities for group, but also for personal and societal, life (p. 151).

They conclude, thus, that the telelogic form may offer, "if not new, then extensions of conventional ways of creating and sustaining social relations, thereby opening up new organizational possibilities" (p. 152). Among the possibilities they list "consensus-building, resolution of conflict and ambiguity, military, political, or crisis activities (coordination), [and] adaptations to changing economic or ecological environments" (p. 151).

They characterize telelogic usage as falling into exchange, associational, or debate categories and observe that "the debate telelogue is the least evident type in contemporary videotex systems" (p. 156). Ultimately, they conclude that it is not the technology that is of interest, but rather "how that technology is transformed by people and societies into communication systems and how those communication systems transform people and societies" (p. 159).

While interactivity as an attribute of a particular medium is an important foundation, in other ways this focus on physical channels and their ability to carry messages is unsatisfying as a way of defining interactivity for a number of reasons.

C. Interactivity as a Characteristic of an Exchange between Interlocutors

There are four principal reasons that a channel-based definition fails to fully capture the idea of interactivity.

First, there are basic amounts of interactivity that are present in the first and third rows that constitute what has been called "zero level" interactivity, which essentially is simple selectivity and control of linear media. The ability to change channels, for example, may be considered a basic element of interaction with the device, such as a television set or radio. This selectivity is a necessary though not sufficient way of defining the presence or absence of interactivity, otherwise washing machines (Thierry (1989), p. 52), automobiles (Weissberg (1989), p. 101) and virtually every other mechanized device is interactive.

Second, the above table does not take into account interactivity based on the presence of a narrowband return path that allows users to send simple binary or limited choice responses. This was the basis of the most widely-known experiment in the US with interactive media, the QUBE cable system that once served Columbus and a handful of other American cities. Durlak (1987) calls this reactive rather than interactive, or at best "pseudo-interactive." Audiotex (the selection of recorded messages by the user of a touchtone telephone) thus fits uncomfortably somewhere between rows one and two of the first column. It is important, therefore, not to confuse a richness in communications stimuli with interactivity (Lévy (1989), p. 12). A medium may be poor in stimuli yet interactive, such as QUBE, or for that matter telematics, which in comparison with video teleconferencing, for example, offers a

very narrow range of communications stimuli--at best a (very limited) number of written words.

Third, it doesn't allow the explicit distinction between interaction that links conversational partners, the type of interactivity meant by designating the second row "two-way," and the interaction between the user and the communications device, which is quite a different kind of interactivity and can said to be present throughout the third column. Much of the literature on interactivity, in fact, is concerned exclusively with the human/machine interface rather than with mediated human interaction.¹ Thus, the box of primary importance here, row two, column three, includes both communication in which two or more humans "talk" by means of computers as well as the consultation of stored text, numbers, or images which is a fundamentally different kind of interaction. For example, in discussing the concept, Gayeski (1984-85), Weissberg (1989) and Thierry (1989) reveal that it is human/machine interaction they have in mind. Rice (1984, p. 35) makes explicit that interactivity refers both to interaction among users and "between users and information."

Finally, and more importantly, an exchange may be overtly bi-directional--as may an unmediated face-to-face human conversation--but at a very low level of interactivity, which is to say primarily monologic rather than dialogic. As Rogers (1986) says, interactivity "is an inherent property of the communication process, not just of the communication technology itself." Unfortunately, his definition of interactivity--"the capability of new communication systems (usually containing a computer as one component) to "talk back" to the user, almost like an individual

¹ The very concept of human/machine interaction is unsatisfying because, of course, the machine is animated by the humans that built and programmed it. We remain far from the self-actualizing, autonomous, "intelligent" machine idealized in science fiction.

participating in a conversation" (p. 4)--fails to incorporate that hardware characteristic/communications activity distinction.

Rafaelli's definition makes some progress in that sense. He defines interactivity (1988, p. 111) as "an expression of the extent that in a given series of communication exchanges, any third (or later) transmission (or message) is related to the degree to which previous exchanges referred to even earlier transmissions." His analogy to a politician's press conference is apt. Allowing questions from journalists introduces two-way communication although not necessarily interaction in that the questions may be rhetorical and the responses evasive. Only when follow-up questions are allowed and address both the previous answer and the question that provoked it is an exchange produced that is interactive. Thus, in other words, interactivity may be seen as present in an exchange in which a third message is predicated on the relation of the second exchange to the first. Bretz (1983, p. 13) also differentiates between quasi-interactivity and true interactivity based on whether or not a third exchange is substantively responsive to what came before it and defines "fully interactive" as a medium that allows the sender and receiver roles to be interchangeable, a definition also supported by Rice (1984, p. 35).

These important exceptions to a definition of interactivity based on the technical capabilities of a medium lead to characterizing it as a quality of communication that is relatively more or less present along a continuum. The most common way of looking at it is to see it as present in degree on levels that run from control at one extreme to creation at the other: the first indicates the ability to set up the communications channel, such as by turning on a TV and selecting a station ("zero level" interactivity above), while the second indicates an ability (although not necessarily an equal one) to use the channel to construct and send messages as well

as receive them. Weissberg (1989) calls them command versus conversational interaction.

Rafaeli (1988) makes it a three level distinction ranging from two-way but noninteractive communications, quasi-interactive or reactive, and full interactivity or responsiveness. By separating interactivity from medium characteristics, Rafaeli recognizes (1988, pp. 120-121) that they "may set upper bounds, remove barriers, or provide necessary conditions for interactivity levels," but that this potential "does not compel actuality...[p]otential interactivity is a quality of the situation or setting."

These distinctions are clear and useful. However, Rafaeli's top level is not, certainly in the political sense, the "ultimate" interactivity. What appears to be missing is a yet higher level (discussed below) that would be a series of exchanges that had some effect; some personal or organizational impact such as a decision reached or an action taken.

Gayeski (1984-85) also separates the capabilities of communications hardware from the implementation of interactivity by means of a progressive "taxonomy" that relates hardware capabilities with design characteristics. In this model, the first two levels involve the control of linear media (rhetorical direct address and the ability to interrupt a linear message). The next four levels are based on the ability of media hardware to branch to differing segments of a presentation and are differentiated based on the machines' ability to accept multiple choice, textual, tactile, or natural language responses. The top level--intelligent systems--are those that engage in self-modification or learning based on a user's response over time. This schema, while helpful in separating interactivity as a concept from the capacities of the communications devices with which it is implemented, remains essentially limited to explaining human/machine interactions rather than mediated interactive communications between people.

Kretz (1985) sees interactivity--defined as "the manifestation of actions on the part of the user vis-à-vis a medium or an application of a medium, producing various responses" (p. 96)--as ranging in a number of levels along a continuum that has two fundamental axes. The first is semantic and concerns the complexity of the action; the second is temporal, or the frequency of the exchanges. Adopting the McLuhanesque metaphor of temperature, Kretz sees an interactive medium as one that would have to be "hot" in terms of the rapidity of exchanges and the complexity of the messages sent.

With these tools, Kretz gives interactivity six distinct levels. At the zero level is the selection of a medium or of particular content, such as a book or television show. Level one activity remains linear and the user may move forward or backward. Level two allows a user to select from a prescribed menu of choices, while linguistic interactivity, or access by means of keywords or formulas in natural or quasi-natural language, is level three. Level four is creative interactivity in which the user is able to compose a textual, oral, or graphic message. At the highest level is "the interactivity of continuous command," or the modification or restructuring of objects under the direct and continuous control of the user, as with video games.

In applying this framework, Kretz cautions against aggregating both user-service interactivity with user-user interactivity, which he says are quite different and difficult to compare.

Thomas and Miles (1989), after noting "extremely little discussion of what constitutes interactivity," give it seven levels that they acknowledge are only loosely hierarchical. Their level one is radio or television with only one channel and level two the same media in which users may choose between broadcasters. Level three allows content to be user-selected from a larger data base, all of which is delivered. Examples are newspapers or audio or video recordings. The fourth level is

electronically-aided searching by menus or keywords of stored material all of which is physically available. They give interactive CDs or videodiscs with advanced retrieval software as their examples. Their fifth level uses the same navigational methods as level four but only requested information is made available rather than the entire database. They put most telematics at this level. Level six is the first at which individual users may interact with one another or make substantive (ie. non-navigational) responses. Examples are electronic banking services or the messengeries on Teletel. Finally, level seven allows pre-programming of interactions and "transparent transitions between media." Although most commentators, they report, would locate interactivity as beginning at levels three or four, they focus upon levels five and six because they are telecommunications-related "new interactive services."

The similarities of these four approaches to reaching a definition of interactivity are obvious, but before synthesizing them a number of definitions of the term must be considered that are based not on differences in degree but on characteristics and attributes. Durlak (1987), Lippman (in Brand (1988), p. 46-50), Heeter (1989), Queau (1989), and Weissberg (1989) take this approach.

Durlak's goal is to present "a typology for determining the extent to which a medium is 'interactive.'" He divides media systems into four components (hardware, software, tools (applications), and people), while admitting at the outset that "one of the difficulties in focusing on "interactivity" is that it is becoming more difficult to find out where, for example, hardware ends and software/tools or people begin" (p. 745). Nevertheless, each of these components is assigned a number of variables, which are arranged along a horizontal axis. Placing a designer's goals in producing interactive media along the vertical axis produces a typology in which the various characteristics of an interactive medium may be located. However, any medium

would show characteristics located at widely divergent locations according to this schema, limiting its ability to be operationalized.

Lippman ((1985), reported by Brand (1988), and analyzed by Lévy (1989)) provides a definition of interactivity with "five corollaries." Interactivity is "mutual and simultaneous activity on the part of both participants, usually working toward some goal, but not necessarily" (Brand (1988), p. 46). This vague definition is partially clarified by the "corollaries" (which one finds six of rather than five). They are interruptibility (to distinguish between exchanges that are simultaneous and those that are merely alternating); cogency ("not losing the thread" despite having an unknown conversational "destination"); "graceful degradation" (meaning that requests for information that an interlocutor cannot fulfill do not bring the interaction to a halt); "limited look-ahead" (the composition of later messages predicated upon the content of previous ones); lack of a default path (a pre-programmed direction that the exchange will take unless redirected); and infinity (the impression of an infinite database, or a sufficient number of decisional choices at any given point to create the illusion of unbound choice). As with Durlak, this definition is actually more of a description that reveals the latent goal of simulating human interaction, to which it is best applied, rather than mediating interaction between humans.

Heeter's six dimensions of interactivity are complexity of choice or selectivity ("the extent to which users are provided with a choice of available information" (p. 222)); the effort that must be exerted by users (with computer communications at near parity in the ratio between user and system activity); responsiveness to the user, or conversationality ("the degree to which a communication exchange resembles human discourse" (p. 223)); the potential to monitor the use of a medium (very high for videotex); the degree to which users are permitted to add their own content to a system "that a mass, undifferentiated audience can access," (p. 224); and the degree

to which it facilitates interpersonal communications between users. These six dimensions are then used to produce seven propositions for ways mediated communication must be reconceptualized.

To Queau (1989), the principal distinction is a dualism between autonomous and heteronomous interaction. In the first the rules of the interaction can themselves be called into question, while in the second they cannot. Reciprocal action in which "the conditions and the laws that govern the interaction" may be modified is autonomous, and is heteronomous when "confined in a formal game for which the laws are defined one time and last forever." (p. 44)

Weissberg (1989, p. 99) gives four characteristics of an "interactive work" that is a fusion of aesthetic content with an exploratory framework: incompleteness (not all is totally visible), mediatization (software of some kind gives access to the hidden elements), segmentation (units are linked by user-induced sequencing), and latency (nothing moves until activated by the user.) The two axes of interactive design, according to Weisberg, are linguistic (ranging from coded to conversational to intelligent) and role simulation (that range from simple task orientation, like an automatic teller machine, through the projection of a supposedly intelligent partner). All applications that create the simulation of a human partner or the creation of a role are interactive, which is "at once both a cause and an effect of simulation." While this is no doubt true, interactivity is most certainly found at levels well below this.

D. The Synthesis of an Operational Definition

Fusing these themes into a melody that will prove harmonious on all instruments is no doubt a futile task. However, an approach that adopts levels or degrees of interactivity has the advantage of focusing our inquiry upon the quality and amount of interaction produced by the medium, making it possible to evaluate how much of the technically potential interactivity becomes actual participation. Thus,

within an interactive channel, such as telematics, one can analyze the communications themselves as being more or less interactive: a schema for the various interactivities produced could range from selective to reactional to conversational to activational.

These distinctions produce the following four-level measure:

Table 2

Levels of Interactivity

Level One interactivity is **selective** and involves the choice of a service or of a menu by limited commands; one can choose which message to receive next. These are command or motivational level interactions. Also may be present in non-interactive channels, such as the remote control of a television set. This is the lowest level interactivity and is commonly characterized by software designed around branching, such as is found in audiotex. This is "**remote control**."

Level Two interactivity is **reactive**, meaning introduction of the ability to respond with language in situations where succeeding messages incorporate the content of the previous messages, or to jump to different locations by a more sophisticated command structure, yet which remain sub-conversational. This is "**feedback**" (Westley and MacLean, 1957). Even the most advanced human-machine interaction has been unable to progress beyond this level, at least for now.

Level Three is **conversational** interactivity, meaning an exchange in which the third message rests on a cognitive foundation created by the second and first, in which there is apparent logic in the progression of messages. May be real time or not, ie. asynchronous (electronic mail) or synchronous (live communication). This is "**dialogue**."

Level Four is **activational**, meaning a purposeful interaction in which the exchanges build to an ultimate conclusion or some kind, when cognitive activities are accompanied by overt behaviors. Not all human interaction reaches this level, but the ability to produce an effect beyond the conversational exchange is of concern to an evaluation of the medium's democratic potential. This is "**decision-making**."

The advantage of this definition is that it is clear that one finds "more democracy" the further one moves up the scale. In addition, human/machine interaction loses salience at the higher levels, which become more focused upon the

results of the interaction than upon the framework within which it takes place. Nonetheless, the limitations provided by the technical framework place important limits upon the degree of interactivity. Level Four thus requires a substantially richer interaction than does Level One.

In conclusion, interactivity has almost as many different definitions as authors using the term. It is both a characteristic of the medium or channel within which communication takes place and of the interaction which is conducted by means of that channel. It is precisely at this transitional point that investigation must center. As Henri Pigeat ((1983), cited in Rabaté and Lauraire (1985), p. 59) writes, the integration of interactivity into economic, social, and human organizations gives it an entirely different resonance. Therefore the proper question for interactivity is the same as for democracy: how much of it is there in a particular medium, relationship, or institution?

III. Interactivity and the Media Regime

Interactivity is the essential element that not only separates new media from old but is the basis on which they may be the foundation for a new media regime. It is the introduction of this fundamentally new characteristic that endows the new media with the potential to transform the communications patterns of the televisual regime, to be the basis for new means of discussion and consensus-building, and to be seen to have epoch-changing powers.

Yet, while interactivity is first a technical attribute, it is most importantly a characteristic of a communications exchange rather than of a channel. The fundamental question is how much the interactivity permitted by the communications channel is actually built into communications practice, in other words, how and how much technical interactivity becomes social interaction.

The way to go about measuring this is first to examine the basic communications patterns existent in the incumbent media regime, and then to look at a number of cases of attempted adoption of interactive capabilities by organizations of political import. In a society that provides access to an interactive medium on a large scale, who has attempted to exploit this capacity to communicate politically? And, most importantly, what has been the effect upon established patterns of political communication?

Chapter III

The French Media Matrix and the Introduction of Telematics: Reading the Subtext of Videotex

The purposes of this chapter are to describe the French televisual regime, so as to understand the media matrix and patterns of political communication existent prior to the introduction of the new medium; to recount the history of French telematics and particularly the role of the state in its establishment; and to show the characteristics of its audience and how the medium is used, apart from any political context.

Despite a far higher level of state intervention and quite different media institutions, France experienced the transition from a print-based media regime to a televisual regime at approximately the same time, and has current media consumption patterns that are broadly in line with those found, for purposes of comparison, in the US and other industrialized nations. The state intervention in the creation of the new medium, which appears remarkable to outside observers, is quite unremarkable in the context of the history of French media. Understanding how the French came to make a massive investment in telematics reveals the goals it was meant to serve, which had more to do with industrial competition, economic policy, and bureaucratic expansion than with any content to be rendered available with the telematic medium. Finally, the medium has generated patterns of usage that have been at odds with what were hoped for by its developers. Usage is heavily concentrated, with a large percentage of Minitel-equipped households using it very little or not at all. Despite the broad distribution of the device, the medium's real audience is split in two, comprised in part of a larger number of occasional users whose use is brief and utilitarian alongside a small, constantly churning minority of heavy users who use the device as a form of entertainment and diversion and who make calls of long duration.

I. The French Media Matrix

Just as the organizational details of democratic political regimes vary, so are there some differences between the televisual regime as it is found in the US and in France. Foremost among them is the much deeper interpenetration of media and political institutions in France, stemming from the decidedly statist origins of French mass media. However, in the same way that the French understanding and implementation of representative democracy is founded on essentially common principles as the American, the televisual regime in France is marked by continuities with the televisual regime as it is found in the US. As in the US, the broadcast media have in a short time displaced previously dominant print-based media and taken over and transformed many of its political functions.

A. The *Ancien Régime*: The French Press

Since its very origins, the French press has oscillated between extremes of independence and subservience, depending upon the vicissitudes of political power. While the revolution gave the French press a legal guarantee of independence, even this legal foundation authorized restrictions on the freedom of the press. Article 11 of the *Déclaration des droit de l'homme et du citoyen* guarantees citizens the right to speak, write, and print freely, "except as concerns abuses of this liberty in cases determined by law," an exception bitterly opposed by Robespierre (Charon (1991), p. 258). The revolution gave expression to press liberties, by bringing a flowering of more than a thousand different publications, but the Terror (1792 to 1795) eliminated a large number of both journals and journalists. Bonaparte again drastically reduced the number of Parisian newspapers, made one of them an official organ of government, and permitted only one newspaper in each *département* to continue under strict control, giving considerable personal attention to what were considered "his" newspapers.

At the turn of the twentieth century the French press was, by the measure of circulation, among the most robust in the world. It had already survived several of the cycles of liberty and repression that have marked its history. The century leading up to World War I was the golden age of the press, in France as elsewhere. Yet, in France the press was subject to considerable regulatory attention: government authorization to publish, the posting of bonds, the requirement that papers carry official stamps, etc. Enjoying large audiences and enormous political potency, the newspapers are credited with providing the agitation that induced the revolution of 1830. Predictably, the *coup d'etat* that marked the end of the Second Republic (1851) once again eliminated the vast majority of publications in favor of a small number of highly controlled ones.

The press played an essential role in the crises that brought an end to the Second Empire and to the founding of the Third Republic. Once in power, the republicans gave the French press a statute guaranteeing its freedom (1881), although as Albert (1990, p. 156) notes, the French press was not able even during the era of its greatest strength to attain the advertising receipts earned by its British and American counterparts, but relied upon occasional governmental subsidies. During this, the height of the print-based media regime, newspapers were used by men who were at once politicians and newspaper entrepreneurs to further both their commercial enterprises and their political careers. Examples include Clemenceau (editor and publisher of La Justice and prime minister) and his foreign affairs minister, Stéphane Pichou, who retained his place as editor of Le Petit Journal during his government service. As Charon (1991a, p. 43) notes, this was the beginning of a permanent linkage between the state and the press that would endure to the present era.

The French press found its status considerably diminished by the First World War. French censorship, writes Albert (1990, p. 162) "was far more severe than that

of our allies...[and] was often used by the government to ends concerned with domestic politics." The exigencies of the war (restrictions on paper, transportation, a lack of advertising) killed off all but the most financially secure papers. One of the surviving newspaper's officers were convicted and executed for treason.

The close linkage of politics and publishing continued in the interwar period, with the publisher of Paris-Soir serving as Minister of Information. The Second World War once again led to the decapitation the French press. Papers that had collaborated with the Germans were closed down and their assets confiscated. Only 28 of the 206 dailies that had been publishing in 1939 survived both the war and its aftermath (Guillauma (1990), p. 19).

The lasting effects of this huge disruption are many. First, it damaged the credibility of the press, whose audience turned increasingly to radio as a means of receiving uncensored news. Second, it weakened Paris-based papers to the benefit of regional ones. The war marked the point at which the regional press overtook the national dailies in circulation, a process that had been underway since the middle of the 18th Century. Third, the legal structure put in place after the war--unchanged until the 1980s--provided important legal obstacles to press concentration (and hence consolidation), competition (the prices of daily papers were fixed by the government for the twenty years following the war), and to technological innovation (which was often successfully opposed by labor unions).

It is critical to point out the presumed source of corruption that the postwar policy (no law was ever voted) was designed to prevent. Measures were necessary not to insulate journalism from government involvement but to protect it from the wealth and power of the private interests, whose compliance with the foreign occupier, it was felt, came too readily. Dependence upon the state as a benefactor was preferred to private capital and the vagaries of the market.

The postwar period has been a time of dramatic decline for the French press. Readership of daily papers has declined more rapidly in France than elsewhere, falling 26.5% since 1960 compared with a 17.8% decline in the US and a 19.5% drop in the UK (Albert (1990), p. 34). Competition from other media is an important but incomplete contributing factor. There have been more households with televisions than daily newspaper sales since 1972, and newspapers get on average only 20 minutes/day of attention, which is a 5th of the time that goes to TV and a quarter of the time that goes to radio (Albert (1990), p. 23). Yet, most other Western nations have more developed broadcast systems and consume at least twice as many newspapers as the French, suggesting that there may be more profound underlying causes (Albert (1990), p. 23). Foremost among the structural weaknesses of the French publishing industry is the comparative underdevelopment of advertising revenues, which has been true since at least 1815. Despite a vast expansion (more than doubling in constant-value from 1969 to 1988 (Albert (1990), p. 78)), advertising expenditures are less in France, 0.77% of GDP in 1988 compared with 1.48 in the US (Albert (1991), p. 44). And advertising made up 43.2% of revenues of the French press in 1988 while reaching 70% in the US and 65% in UK (Albert (1990), p. 37).

This makes French publishers relatively more dependent upon the paper's sale price. Price increases have had the effect of further eroding readership since 1967, when they were first authorized in the postwar period. Since 1970 the price of a paper has risen twice as rapidly as consumer price index. According to Albert (1990, p. 35), this is one of the primary causes of the drop in readership.

Two important cost-related variables provide further problems for the French newspaper industry. Distribution methods are less efficient than in many other countries, resulting in a high percentage of unsold papers. Subscriptions, which may

account for a large majority of sales in the US or UK, account for less than a fifth of sales in France (Albert (1991), p. 40), and home delivery is only offered by a small number of regional papers. Most copies are sold at newsstands, a distribution system that returns to the publisher only about 40% of the cover price of a Paris daily and about 50% of a provincial paper (Albert (1990), p. 69).

And while the relative lack of media conglomerates and newspaper chains may meet the goals of pluralism, it also prevents the economies of scale and purchasing power enjoyed by large enterprises. The French newspaper industry is far less concentrated than its US, German, or British counterparts (Albert (1990), p. 37, 89). The postwar ordinances prohibited non-publishing firms from entering the industry, but in any event they have not seen publishing as an attractive investment (Albert (1990), p. 89).

While government support for the publishing industry is accomplished by a wide range of subsidies of different kinds, it is in total far less than the difference between the advertising revenues generated by the French publishers and those of British or American publishers (Albert (1990), p. 37). Albert (1990), p. 71) estimates state support to account for between 12% and 15% of total revenues of French publishing industry. It averages about 20% for newspapers (Charon (1991), p. 118).

While some 11,000 publications received state support in 1989 (Albert (1990), p. 21) these subsidies are non-discriminatory and non-selective and distributed according to rules that are broad enough to qualify erotic and violent publications for financial support in addition to news- and information-oriented publications (Albert (1990), p. 44).¹ The apparatus by which state subsidies are made is beyond the reach

¹ The number of French periodicals is difficult to establish, but by way of comparison 2,483 are produced by publishers (1986) and approximately 13,000 are registered with the *Commission paritaire des agences et publications de press* (1984). A substantially greater number were produced by associations that were primarily

of the party in power, and are delivered without regard to the political orientation of the publication.

Direct subsidies account for only 5% of the total, and include payments for transportation expenses on the railways, funding to promote the distribution of French language journals overseas, and telecommunications expenses for contact with foreign correspondents. The majority of indirect aid is preferential postal rates and a lowered sales tax for publications, which accounted for a subsidy of 5.33 BF (approximately a billion dollars) to the French publishing industry in 1988 (Albert (1990), p. 72).

The erosion of the financial position of the French press should not, however, be exaggerated. Although the press's share of advertising revenues from has declined from 78.8% in 1967 to 56.2% in 1989 as television's share has increased, the overall advertising market has been growing fast enough that advertising receipts for the press increased more than 10% a year from 1984 to 1988 (Charon (1991), p. 106-7). The daily national newspapers reported a 23% increase in 1989, leading one to conclude that reports of their imminent death have been exaggerated (Charon (1991), p. 367). While the national press has fallen to 11.2% household penetration the regional press is thriving and reaches just over half of all households, challenging television as the leading national medium (Charon (1991) p. 217).

In conclusion, there are important ways in which the French press is unlike that found in other Western democracies. Government involvement in its affairs is far more widespread, and its legal and financial foundations are comparatively weak.

While it is increasingly rare for newspapers to be held accountable, the official list of things that are forbidden to be published is long and includes national defense

engaged in other activities. The national library receives about 35,000 publications but the bulk are irregular and episodic (Albert (1990), p. 21, 73). Albert (1991, p. 9) cites a figure of 2,900 magazines that are commercial ventures.

secrets. Journalists have no legal foundation upon which to maintain the confidentiality of their sources, and individuals who feel they have been defamed by a journal have a legal right of response. These are some of the effects of the traditional interpenetration of media and politics and of the massive disruptions in the publishing industry caused by the two world wars, which have produced an industry that receives more aid than in any other Western country (Hanley et al (1984), p. 138) and one whose ability to resist political pressures is compromised. While overt acts of censorship are decreasingly common, "it is clear enough that the state has that power if it chooses to exercise it, and state-aided as it is, the press is ill-equipped to stand against the state if this should ever become necessary" (Hanley et al (1984), p. 138).

However, despite these differences, one finds in France the same displacement of print media from the position of dominance it enjoyed at the start of the twentieth century that characterizes the experience of other Western nations. The French press may have adapted with more or less facility to the pressures upon it, with more or less help from the state, but what is certainly gone is the media regime of the 19th and early 20th centuries, in which as Charon (1991a, p. 17) says, the press served "as a vector for the formation of broad collective identities and social consensus."

B. The Emergence of the Televisual regime: *Télévision d'Etat*

Even the intimate level of interconnection of French print media and politics never allowed the government to reach the level of control over the press that it achieved over the broadcast media. Gaullist control of broadcasting can be seen as the archetype both of how to exercise political control over television as an institution and how to use the medium as a tool of political control over a nation, both of which reached a stage of development in France unknown by any other Western democracy. At its peak, DeGaulle's control over "his" television recalled Napoleon's control over

"his" newspapers. As Hanley et al (1984, p. 132) put it, television virtually joined the other political and administrative institutions of the French state:

[t]he French state has a further string to its bow, in the shape of the use it can make of the mass media. This matter could well be regarded as a kind of appendix to the constitution, since, just as much as the latter, it confers power on the state--a power which regimes in the previous century did not enjoy--namely to communicate information and views immediately to the mass of the population.

While many of the overt mechanisms of control have been taken out of the state's hands, this history continues to be reflected in a residual level of state control over broadcasting that is quite high.

Competition between public and private broadcasting goes back to the very start of French radio in the 1920s. Restrictions were placed on the dozen private stations in existence in 1933, and in 1936 all local news reporting was banned in favor of broadcasts centrally prepared in Paris. At the Liberation, all private radio licenses were revoked (some were compensated while others were not) and in November 1945 *Radiodiffusion-Télévision Française* (RTF) was established on a temporary basis that was to endure for almost thirty years. None of the more than a dozen proposals for restructuring broadcasting made between 1945 and 1958 was seriously considered and the rapidly changing governing coalitions of the Fourth Republic left broadcasting as a state monopoly.

RTF was operated as a civil service department whose budget was subject to parliamentary approval. Its director general was appointed by the government and reported to the Minister of Information, who appointed the director of radio news. During the Fourth Republic overt political use of radio for partisan purposes was uncommon. The government's chief intervention was in directing RTF not to cover or to de-emphasize some events such as opposition to French colonial rule in Algeria. The practice of daily meetings at which officials of the RTF and the Ministry of

Information would determine the content of newscasts was begun in the mid-1950s, although the practice of daily consultation went back to 1948 (Browne (1989), p. 70).

The pre-television period thus established a close connection between broadcasting and the state. Leon Blum's weekly radio addresses in the era of the Popular Front and DeGaulle's well-timed radio address to French troops in Algeria, which they were able to hear individually due to the recently-developed transistor radio, are leading examples, as of course are DeGaulle's broadcasts from England to France during World War II when it might be said that the ability to broadcast was the principal resource the French government-in-exile had at its disposal.

Yet, the state's monopoly on radio was imperfect. A number of stations broadcast in French on the periphery of France (called the *périphériques*) including Radio Luxembourg (created in 1929), Radio Monte-Carlo (created in 1942 under Vichy to broadcast to North Africa), and, starting in 1955, Europe-1. Their transmitters may have been outside of French territory (Radio Monte Carlo's are actually in France) but their studios were within it. They were tolerated in large measure because their independence was compromised in many ways: a state holding company, SOFIRAD, controlled Radio Monte-Carlo, and in 1959 bought part of Europe-1. In times of crisis, the state could and did sever the cables linking the studios to their transmitters (Thomas (1976), p. 105; Bourdon (1990), p. 18).

In the case of television, however, similar incursions upon French territory by foreign broadcasters were quickly beaten back. Television's start as a mass medium dates to the late 1950s, growing from 60K sets in 1954 to over a million in 1958 (out of 12M households). In the mid-1950s, when British and German television began to attract French viewers, who proved willing to purchase sets with which their programming could be received, the French state leapt to action. Its first transmitters outside of Paris were built not where they would boost the signal for the maximum

number of viewers but along France's northern and eastern borders (Thomas (1976), p. 104) where they would fight transborder signal incursions.

It was with the establishment of the Fifth Republic that government control of broadcasting became institutionalized, both in terms of Gaullist control over television and the exploitation of television as a tool of political control of the nation, what Missika and Wolton (1983, p. 49) call "the archetype of state television." No party had been in power long enough in the Fourth Republic to assert organized control over television. A strong presidency and stable parliamentary majority changed that. Although the Gaullists passed a statute in 1959 making RTF an autonomous public institution, "if anything, the statute increased the degree of government control" (Browne (1989, p. 72) and for the average citizen the RTF and the government were impossible to distinguish from one another, radio and television becoming "the government in the diningroom" (Thomas (1976).

De Tarlé (1979) calls television "a principal weapon" in the Gaullist battle against the leaders of the old Fourth Republic who now became opponents of the Fifth. Gaullist control over broadcasting as an institution falls into four major categories: appointments, overt content control, the purchase of ownership shares (and hence influence) in the competition, and the policy of not allowing any countervailing powers such as journalists, viewers, or parliament to organize and assert themselves.

Appointments by which "Gaullists or sympathizers were moved into almost every key post affecting public opinion" (Thomas (1976), p. 13) were made as rewards to loyalists as well as to control television. The Gaullists were not innovating; they were simply continuing "the tradition whereby government control of state broadcasting was regarded as a legitimate spoil of electoral victory" (Kuhn (1985a), p. 50).

Overt content control was exercised as necessary. Daily conferences involving the ministries were formalized soon after DeGaulle took office in order to coordinate what did and did not appear on television. As Thomas (1976, p. 23) says, "much of the government's action was 'invisible,' outside the official channels: personal contacts, the old-boy network, discreet telephone conversations between friends." It was common for ministers to call after a news program and voice their displeasure to the Minister of Information, who was expected to control programming through his subordinates. DeGaulle himself was a regular and highly critical viewer who did not hesitate to intervene when what he saw displeased him. "You are the director," recalls the head of television when being given an order from the General, "well then direct. The only thing that I will never forgive you for is to not direct" (Bourdon (1990), p. 244).

As mentioned above, ownership interest in peripheral radio stations was a useful expedient because they had already succeeded in gathering audience share. Listenership of RTF dropped from half of the audience in 1953 to about a quarter of it in 1962 (Bourdon (1990), p. 98). SOFIRAD controlled (in the 1970s) 99% of Sud Radio, 83% of Radio Monte Carlo, and 35% of the capital and 47% of the vote on the board of directors of Europe-1. Although Radio-Télévision Luxembourg (RTL) resisted selling an ownership stake to SOFIRAD, the state-owned advertising agency Havas held a 15% stake and the station's exclusive advertising rights. As Thomas (1976, p. 105) says, the French government was not hesitant in cutting cables connecting the studios and transmitters of these stations (in 1958) and threatening to do so (1968), and using its strength on boards of directors to force the removal of journalists deemed too critical.

The final means by which television was controlled was by inhibiting the development of countervailing powers that might be able to provide a legitimate voice

to those opposed to the government. Although allegedly giving RTF autonomy, the 1959 statute did not give it a board of directors. The 1964 statute abolishing the RTF and setting up the *Office de Radiodiffusion-Télévision Française* (ORTF) set up an administrative council that was to be composed half of representatives of the state and half of representatives of the press, the audience, ORTF staff, and other professionals. In reality, however, the government appointed all members and it quickly became clear that the director general, still appointed by the government, retained control. Reforms of 1968 included the enlargement of the administrative council, yet its independence was not effected.

From this control of broadcasting as an institution one can observe four principal means by which television was made a tool of political control of the nation. These included direct addresses by DeGaulle, limited access for political opposition, overt censorship of content and control over scheduling, and technical decisions such as the selection of a broadcast standard or the placement of transmitters.

Although DeGaulle's initial televised addresses were unimpressive, both the quality and quantity of his exploitation of television increased with time. DeGaulle came on the air on the eve of the 1967 elections to make an appeal for support after formal campaigning had closed, an "abuse of privilege [that] may have won his party the election" (Thomas (1976), p. 21). The creation of the illusion of intimacy, of a direct relationship between DeGaulle and "the nation," which now meant the television audience, was crucial to his presidency. The audience "was given the impression that it was being taken directly into DeGaulle's confidence and into the heart of the decision-making process" (Thomas (1976), p. 14). Broadcasting was so concentrated upon the person of DeGaulle that during one of his visits to the US, radio newscasts began: "In the absence of General DeGaulle there is no political news in France today" (Werth (1960) quoted in Kuhn (1985a, p. 52).

As noted above, overt censorship of content was normal and routine. It was common for highly charged matters of public dispute to be absent from television, such as the Algerian conflict or manifestations of anti-government sentiment like the events of 1968. Censorship was justified as the government's means to counter-balance an unfavorable press. Manipulation of the airwaves for something that the government wished to keep quiet included placement of political programming after ten p.m. (traditional bedtime for working people) or, after a second channel was begun in 1964, putting popular programming on the other channel at the same time (Thomas (1976), p. 134-5).

More commonly, access was denied altogether to opponents just as DeGaulle had been virtually invisible during most of the 1950s. Under his regime, television "was more than a medium for propaganda: it became an instrument of government" (Thomas (1976), p. 13). The huge imbalance between the television time allowed to the government over opposition candidates in the 1962 elections led to a protest strike at RTF. The National Assembly passed a law in November 1962 guaranteeing airtime to opposition parties and in 1965 the six main parties equally shared airtime. Even this slight liberalization was "electrifying" (Thomas (1976), p. 20), a shock to an audience that was unaccustomed to seeing the opposition on TV. As Griset (1991, p. 198) says, the opening of political debate had greater impact on the sale of sets than 1964's other major competition, the Olympic Games. Yet, the government only allowed opposition access to the airwaves in the two weeks prior to the election, a restriction they failed to apply to themselves. Nor did this change the way the opposition was treated on the news:

Television reporters covering opposition candidates were instructed to shoot them from the back, so that their faces would not be visible. Newscasts showed opposition party members in the Assembly stumbling over their words (Browne (1989), p. 74).

Because this very close control followed by a brief electoral period in which opposition voices were heard seemed to be counterproductive, the government experimented with a brief period of liberalization, but it was brought to an end before the 1967 legislative elections.

Finally, technical decisions were used to keep the French television market out of international competition. The selection of a standard for color television was made by DeGaulle himself to develop the French television industry and isolate French viewers (Bourdon (1990), p. 230). Griset (1991, p 218) calls this "clearly a political weapon."

Despite the (temporary) abolition of the position of minister of information and the creation of competing news teams for the two channels, broadcasting under DeGaulle's immediate successors was little changed. To Pompidou, ORTF was "the voice of France" whose journalists had different responsibilities than those elsewhere, echoing the policy of journalistic subservience expressed by the head of radio and TV news in 1961: "A journalist should be French first, objective second" (Thomas (1976), p. 13).

The government's poor results in April 1972 referendum brought on anxieties about 1973 election and the return of the Ministry of Information. A third channel came on the air in 1973 and a *Haute Conseil de 'Audiovisuel* came into being, without noticeable effect upon the independence of television. The removal of the *president directeur-générale* of French television in 1973, despite the 1972 statute guaranteeing him a three year tenure was met by a "lack of outrage or even surprise which...showed only too well how little the public had come to expect of its leaders, as far as broadcasting was concerned" (Thomas (1976), p. 48).

A major reform to the French broadcasting system came with the breakup of ORTF in 1974. Each element of ORTF was made a separate company, the unions

and the left seeing in this a mechanism by which their strength could be diluted after a series of difficult strikes. Although the "principal aim of the 1974 statute was to cut the umbilical cord linking government and broadcasting...it modified the form of governmental control [and] barely affected its substance" (Kuhn (1985a), p. 55). All that had changed was that "the crude, external interventionism" of the Gaullist era "had given way to a slightly subtler internal manipulation" (Kuhn (1985a), p. 56).

In contrast with the Gaullist period, controls were largely internalized within the programme companies, with self-censorship making censorship quasi-redundant. The Directors of News and their immediate colleagues replaced the Minister of Information as the key figures in the news production process. A major part of their role was to act as dishonest brokers between the government and news departments, turning political pressures into professional directives (Kuhn (1984, p. 186)).

As a consequence, partisan political coverage favored Giscard, who used state influence over television as a political weapon not only against the left but against his increasingly restive coalition partners in the Gaullist party. His government was also disinclined to create a commercial television channel since much of the regional press, which supported him, would suffer losses of advertising revenue.

What freedom did exist was due to the major political ruptures of the era (the governing coalition was badly fractured and the Socialist Party was threatening to win power), which offered a chance for pluralism in broadcasting, as had been the case in the Fourth Republic.

The victory of the Socialists in 1981 brought a slight distancing of political authorities from control of television, but by this time the public had been largely desensitized. Government control of television had become "part of the ritual of post-war French politics: the protagonists play out their parts as though from a script, voicing their lines with no real conviction to a largely unconcerned public" (Kuhn

(1985b), p. 54). A Harris poll in 1983 found a plurality (47%) agreeing that it was normal for the government to control television (Missika and Wolton (1983, p. 85).

The Socialists first major action in media policy was the 1982 audiovisual law that did away with the radio monopoly by authorizing private radio stations, created an agency to oversee broadcasting, and established in written law at least the principle, if not the practice, of free expression in broadcast communications. Yet, after pledging not to replace personnel appointed by its predecessors, the Socialists sought the resignations of the directors of the three television channels. To Missika and Wolton (1983, p. 86) the principal contribution of the alternation of power was that it destroyed the link between journalists and political parties. If the left was going to behave essentially as the right had done (at least as it concerned appointments) the independence of journalism would have to be defended by professional organization rather than party politics.

Much, however, did change from 1981 to 1986 including the establishment of a pay television channel and the awarding of licenses for private fifth and sixth channels. The pay-television channel in particular "had clear political motivations" (Forbes (1989), p. 30) including heading off a satellite channel to be run from Luxembourg and pre-emption of the right's ability to deliver the channel to a group of its supporters when it came to power.

When the right came back into power in 1986 Prime Minister Jacques Chirac replaced the *Haute Autorité de l'audiovisuel* with a *Commission nationale de la communication et des libertés* (CNCL) and expanded its membership. It was authorized to sell off the first channel, TF-1, and revoke the license for the fifth and sixth channels and give them to different bidders. All three channels had to agree to broadcasting material of French-origin fifty percent of the time, a quota not often

lived up to (Forbes (1989), p. 33). With the return of the Socialists to power in 1988 the CNCL was disbanded and a *Conseil supérieur de l'audiovisuel* created (1989).

C. The Current Media Regime

Some of the statistics to describe the French media matrix and media consumption are summarized in Table 3, which compares France with the US. French culture is far less television-oriented, with substantially fewer sets per inhabitant and far fewer broadcast signals available. The French are subject to much less advertising, and its cultural industries (including film) are protected in various ways.

In terms of viewership patterns, it appears that the differences in broadcast institutions or the supply of programming have had little effect upon usage patterns. Although the French generally have less time available every day for leisure than other comparable Western nations, almost half their free time is occupied by the mass media (and in particular by television), as is the case in the other Western democracies. In 1990 average time spent in front of the television was 3.5 hours a day, making it the leading leisure activity (Donnat and Cogneau, 1990).

Even though it has taken a very different regulatory path and is subject to different cultural traditions, the French media matrix greatly resembles that which is found in the other Western nations. Despite the continued instability of the legal framework, television has not only displaced print-based media as the dominant medium but has also profoundly restructured the practice of politics.

Television's dominance was achieved despite huge obstacles, its long history as an organ of the ruling party and its financial dependence upon state funding being foremost. French broadcasting slowly won its liberty from direct government intervention, in much the same way the French press did in the century from the revolution to 1881. As a result of its particular history, however, "government officials of whatever political party still feel freer to intervene in broadcast decision

Table 3

France	Major Media Statistics	US
1969	year televisions were in 50% of households ²	1954
1980	year televisions were in 90% of households	1963
.95	number of TV sets per inhabitant ³	2.1
5	percent of population receiving 9 or more TV signals ⁴	86
187	average minutes per day of TV viewing per TV household ⁵	425
1978	year telephones were in 50% of households ⁶	1946
1986	year telephones were in 90% of households	1970
176	number of newspapers sold per 1000 inhabitants ⁷	269
4	percent of worldwide advertising market ⁸	50
1.2	advertising as a percent of GNP	2.4
81	annual advertising expenditures per inhabitant	424
145M	annual government subsidy to French film industry ⁹	
	annual value of US film exports ¹⁰	1.2B

² France from *Institut National de l'Audiovisuel* (1990); US from Brown and Bryant (1989).

³ 1988. From Griset (1991), p. 137.

⁴ France from Browne (1989), p. 126; US from Neilson (1988), p. 2.

⁵ France: November 1988 figures for individuals from Cayrol (1991), p. 270; US: Neilson (1988) for households for September 1986 to August 1987 season. A better comparison may be in Griset (1991, p. 138) which shows 140 minutes for France and 210 for US in 1984. For the same time period Neilson measured 295 minutes of weekly viewing in France and CESP found 216 minutes (see Cayrol (1991), p. 271).

⁶ France: Lauraire (1987, p. 75) from INSEE, and France Telecom (1990a, p. 9); US: Brown and Bryant (1989, p. 273) from US Bureau of the Census.

⁷ Both from Balle (1990, p. 97) for the year 1987.

⁸ Cayrol (1991, p. 86-8), based on 1986 figures.

⁹ From Griset (1991), p. 174. 800 MF converted to US dollars at 5.5.

¹⁰ Brown and Bryant (1989), p. 278, from US Department of Commerce, 1985.

making in France than they do in any other Western European country" (Browne (1989, p. 94). Two of the four broadcast stations are public and funded by a license paid by owners of television sets². Their budgets are still subject to debate in the National Assembly and "it is a rare year that passes without prolonged hearings" (Browne (1989), p. 97). A second key observation in addition to regulatory instability is the motivation the government has shown in its involvement. The goals to be served by media policies have not been primarily ideological but commercial and industrial. Both cable and pay television were "an integral part of the government's policy to build up the national electronics industry as a principal growth sector in the economy" (Kuhn (1985a), p. 64). Thus, the motivation behind the selection of standards can be seen as well in the expansion of range of choices possible for television viewers. As Kuhn (1985b, p. 57) writes:

the expansion of broadcasting media as been justified with reference to the country's industrial needs...The new media technologies are part of a strategic assessment by the government that the field of communications can provide a much needed boost to both the manufacturing and services sector of the economy at a time when more traditional industries, such as steel and textiles, are suffering from international recession and Third World competition.

So despite lots of content-oriented intervention there has also this other element, policy made based on the needs of French industry.

Yet, despite the battering to its credibility (overt censorship and very heavy-handed control) and the obstacles to its revenues (the very slow authorization of advertising and long list of forbidden products) television arrived as the dominant medium, particularly for political discourse: "...all social, cultural, and economic life, but also all political debate is ruled by television" (Borella (1990), p. 76) and by a

² The number of current broadcast outlets is six if one includes the subscription channel *Canal Plus*, which broadcasts an unscrambled signal during the daytime, and *La Sept*, a cultural channel whose signal is available for a small part of the population.

president who uses it to present himself as the "mayor of the nation" (Mendras (1991), p. 110).

Television creates a public space that has gradually displaced the forms of political interaction of the previous media regime. As Borella (1990, p. 242) writes:

French political life, already marked by the presidential phenomenon and the personalization that it leads to, is totally dominated by the televisual. It is television that creates events in furnishing an echo chamber that structures political debate. Those who control television thus have a power that no priest or prince ever had. This media power, like the economic power that it is becoming closer and closer to, functions outside of the procedures of nomination and democratic control.

The instability of broadcast regulation, however, and the dependence of broadcasters upon and subservience to public authorities has had important political consequences.

Broadcast institutions,

which are an important part of the way democracies keep an eye on what their leaders are doing and debate it, are, in France, far too respectful of those in power--so the national political debate does not take place there either...The result is that those in power in France in the last thirty years have been able to do more or less what they have wanted...without any real public debate at all. The only check on executive power has been agitation in the streets (Frears (1991), p. 222).

In conclusion, there are some important ways that French media function as a relatively weak "fourth estate" in terms of their independence from political authorities. At the same time broadcast media in general and television in particular have established new rules for political discourse that exercise vital influence upon public debate.

Significantly, interactive media was introduced into this broadcast-dominated media system, with its heavy interpenetration of the media and the political systems, by an actor that had previously not been involved in media policy-making. Moreover, France Telecom's pursuit of telematics may be seen to be related far more to

industrial policy goals, enhancement of its own status relative to other bureaucratic agencies, and overall national economic policy than to content-related media policies. The agency was to be somewhat indifferent to the content carried by the new medium and the uses to which it was to be put, inattention and indifference that led to surprises as its users reinvented the telematic medium.

II. The Origins of French Telematics

The French telematic program was the result of a number of very different forces and served many different goals. Foremost among these was the need on the part of France Telecom to continue the investment program begun in the 1970s to solve the "telephone crisis," or the underdevelopment of telephony in France. As it began to close in on its goal of bringing French telephone services up to the level of other industrialized nations, the agency found itself at the end of the agenda that had propelled it from an administrative backwater to one of the state's most dynamic organizations. It looked to new services and international competition as the cornerstones of its attempts to protect and defend its modernization.

The continuation of the bureaucratic conquest set in motion by the PTT and its concern for the health of industries that supply it is the single most important explanation. Other variables that contributed to the creation of the telematic program included the fear of foreign domination of key industries, particularly the American firms IBM and ITT in computers and telecommunications respectively; internal problems suffered by the telephone administration such as the inability to keep up with demand for printed telephone directories and operator assistance as the number of telephone subscribers grew; competition with other nations, particularly Britain, in international arenas in which standards would be selected for the new medium of videotex; the traditional French fear of Anglophone linguistic and cultural domination;

and finally the simple though massive campaign from numerous quarters, both domestically and abroad, that represented the development of advanced technologies, especially communications technologies, as both intrinsically good and historically inevitable.

A. Pre-history: The French "Telephone Crisis," 1968-1980

When DeGaulle left power in 1969 the French telephone system was, as many have noted, the joke of Europe.³ It had more in common with the telephone networks of developing nations than with those serving France's highly industrialized neighbors and competitors. In part, DeGaulle's personal distaste for the device--he called it "a gadget for women who are sensitive to cold weather"--accounted for the chronic poverty of the telephone administration (Giraud (1987, p. 49). But mass demand for telephone service was also lacking. A poll in 1965 found that a majority of citizens reported no need for a telephone. In 1973, before the massive program of modernization was begun, telephone penetration was a mere 9.5 lines per 100 inhabitants. Only 772,000 requests for telephone service were received in 1972 (Bertho (1981); Giraud (1987), p. 46).

Yet, fifteen years later (1988) telephones served 96% of all households. Telephone penetration more than quintupled to 48.2 phone lines per 100 inhabitants, and (in 1989) over 4 million requests for service were received ("France Télécom 1988 Rapport d'Activité," p. 5; "France Télécom 1989" brochure (January 1990). The change has been recognized as "the most prominent success story of state intervention" in France (Brandts (1989), p. 86). The telematic program is the grandchild (a second generation offspring) of this intervention.

³ "Half of France is waiting for a telephone," went one famous joke, "while the other half is waiting for a dial tone."

Although one of the first European nations to introduce indicative planning in the post-war era, the French communications system did not become a priority area for investment until the 1970s. In the 1950s and 1960s the network suffered from a lack of long-term planning, a very weak level of investment, and out-of-date equipment purchased at high prices. A 1968 study of ten countries by the *Comité Consultatif International du Téléphone et Télégraphe* (CCITT, a permanent body of the International Telecommunications Union) placed France in last place for cost of service to subscribers, 54% higher than the average. Users who did request service had a 90% chance of waiting three years to receive service.

The *Caisse Nationale des Télécoms* was created in 1968 to sell bonds to raise funds for investment, but this new power was not used significantly until 1974 due to France Telecom's chronic internal problems. Foremost among these were an organizational structure that placed regional prefects between the agency's central administrators and its regional operations (a legacy of the Vichy regime) and the overall domination of the agency by "*les postiers*," the employees coming from the postal service side who held all the important posts in the central agency. France Telecom's foremost historian, Claude Giraud, writes that "the dominant actors, the administrators, did not want to intervene in the state of poverty the telecom division found itself in" (Giraud (1987), p. 54).

As far back as 1961 the engineers of the telecom division began to agitate for reform. From 1968 onward proposals were made to the National Assembly and study commissions formed that proposed modifications in the structure of the agency. The most important of these recommendations were those made by a parliamentary commission that blamed the state of the telephone system on the high cost of equipment. The equipment suppliers, the report said, charged France Telecom between 200% and 700% more than they charged other clients. At this time the

equipment market, for which France Telecom was by far the largest purchaser, was dominated by the American firm ITT with little competition from French companies. However, this report had no more success than the others in moving the government to action because it came out in 1974 during the time of a huge strike at France Telecom. During the strike "the dismantlement of services and the risks for the public service that would come from the separation of post and telecom" was a major rallying point for union employees (Giraud (1987), p. 56).

There were two possible solutions: either transform the legal foundation of the agency, ie. privatize the telecom operation, or make this sector a priority of the seventh national plan that would run from 1976 to 1980. The strike in 1974 oriented the political decision-makers to the least socially costly solution--making telecommunications investment a planning priority. Even before the seventh plan went into effect, however, an elite consensus to reform telecom was apparent. Three priorities for the telecom administration were ratified by parliament: permit rapid access to the network to new subscribers, improve the management of regional operations by the central agency, and assure domestic production of telephone network components. It was by no means clear that the agency could be successful, and considerable parliamentary doubt was raised as to its capabilities.

The heightened level of public debate over the future of the telephone network began during this time to provoke a mass level response.

These changes began to touch upon the users who waited for a telephone and those who started to desire one... This unsatisfied demand... confronted those in power with the necessity of taking action (Giraud (1987), p. 59).

There were three times as many requests for service in 1972 than in 1962, for example, but despite a larger percentage of demands satisfied this only aggravated the situation (*Rapport de l'Assemblée Nationale No. 1071, juin 1974 ("Corrèze report")*).

Following parliamentary approval of the government's plan of action, the agency's administrators began a complete internal restructuring, which had not been done since 1941. They were able to modify the rules governing the recruitment of employees, the most important of which was the opening of an employment grade that had previously only been open to internal selection new graduates of the engineering schools. This served to dissociate seniority from salary grade and level of function in the hierarchy, which would be independent of the employee's length of service.

New employees were predominantly placed in operational divisions of the central agency that were empowered vis-à-vis the regional directorates. From 1971 to 1978 the number of employees in the central agency nearly doubled. In addition, since the regional officials proved to be a formidable obstacle, a new spatial division called zones were created which included a number of regions. This wasn't a new idea--both the French national electrical power agency and the military had multi-regional units--but it allowed the agency to further marginalize intransigent regional directors.

The agency's showed a quite dramatic improvement following this internal reorganization. The number of principal lines was increased from 6.2M in 1974 to 20M in 1982 as France Telecom installed more than twice as many lines as it had installed since the turn of the century. Penetration improved from 12 to 35 lines per 100 inhabitants and the number of phones from 24 to 55 per 100 inhabitants (Giraud (1987), p. 56).

At the same time as it was conducting this internal reform, it was also engaged in an active restructuring of the equipment industry. With 25 BF in annual investments France Telecom had considerable influence to be applied. By using the capabilities of different independent suppliers, it created the group Thomson and was able to achieve competition in this sector by 1979 and to break the quasi-monopoly

held by the supply industry, ITT having been the most powerful. Continued purchases and nationalization led to a complete inversion of the foreign domination France Telecom had faced earlier. Although approximately 40 companies make up this sector, about 90% of production is attributable to five large companies, three of which were now entirely owned by the state (Thomson-Brandt, CGE, and CGCT) and two of which were under its control (Matra and CII-Honeywell Bull). In its conquest of this sector the government bought out ITT's operations and placed them under the control of CGCT (Bruce, Cunard, Director (1986), p. 512-3).

However, the companies benefitting from France Telecom's increased level of investment had now become quite dependent upon it. At the same time the state's commitment to the health of this industry went from a moral and political one to one in which the its own direct financial interests were involved by virtue of its increased equity position in these companies. To counter the decline in France Telecom's purchases the exportation of equipment became a major goal. Of 19 BF in gross revenues for the French telephone equipment industry in 1980, 3.4 BF were from exportation and 11.6 BF were from purchases by France Telecom. "The opening toward international markets became one of the highest priorities of telecom starting in 1979," writes Giraud (1987, pp 85, 86). And this exportation, "on which depended the survival of the private sector of telecom, was itself heavily based on the development of new products and services."

As the Directeur Générale of France Telecom wrote in 1979 (Journal of Telecommunications, Vol. 46 No. VII, p. 427):

Besides our efforts to continue production (2M new subscribers a year and service that is continually improving), we must develop an effort in the domain of new products and services.

The new priorities of the agency--new services and export--were expressed in large measure by the telematic program that began in 1979:

The services for the general public, called *telematique grand public*, was for France Telecom the means to continue an industrial policy that had started to show, in 1978, some signs of weakening as far as employment was concerned. The fabrication and commercialization of hardware for French telematics, such as the home terminal that would give access to the electronic telephone directory, became the main line of development of the French telecommunications equipment industry (Giraud (1987), p. 87).

This threat to the well-being of the equipment industry was especially true for Thomson and CGE as the new electronic central office switches ordered by France Telecom required half the work positions of the previous generation.

B. The Beginnings of Telematics

The interministerial meeting of 22 April 1975 that had declared the telephone network an area of priority action authorized a massive \$17B investment and made the telecom administration the nation's largest investor (Marchand (1987/1988), p. 17/19; Perier (1988), p. 20).⁴ This was three times the amount available to Telecom in the previous five year plan and ten times that which had been available from 1965 to 1970 (Abadie (1988), p. 20). By 1978, telecommunications accounted for 5% of total investment in France (Gurrey and Miguet (1990), p. 11). Although the goals established in the seventh national plan envisioned a deadline of 1982 for their accomplishment, and despite the fact that France still remained slightly behind other Western European nations in telephone penetration, the near doubling of subscriber-ship by 1979 clearly showed that the investment was going to pay off.

Thus with both the financial power and the credibility gained from their success Telecom sought "a second wind to give to the work of the equipment industry and to the workers" (Michel (1988), p. 20) or, somewhat more eloquently: "after the glorious combat of the telephone, [the] conquest of videotex [was begun]" (Abadie

⁴ As closely as possible, Francs are converted here into dollars according to the exchange rate of the time period.

(1988), p. 11). Attention thus was focused on future telecommunications services that French manufacturers could master in advance of the market and with which they could develop overseas sales. Experimentation that had been underway since the early 1970s in telecommunications research laboratories began to be invested with strategic significance. Spending in this area was also increased. Telecommunications research between 1975 and 1978 (at \$13M annually) consumed between a fifth and a quarter of public expenses on research (Abadie (1988), p. 19).

Researchers at both CNET (*Centre national d'études des télécommunications*, created in 1944) and CCETT (*Centre commun d'études de télécommunications et de télédiffusion*, a joint research center of France Telecom and Télédiffusion de France created in 1972) had been working on new services connecting the telephone to centralized computers for quite a while. The first project, dating from 1970 (before the inexpensive pocket calculator), was an experiment called "*service de calcul par téléphone*" that allowed remote calculation by means of the telephone handset. Both this and a video telephone were displayed publicly in 1972. The integration of the telephone and computer took another step in 1974 when CNET demonstrated a device called TIC-TAC (*Terminal Intégré Comportant Téléviseur et Appel au Clavier*) that presented rudimentary telephone directory and information services in which the buttons of a touchtone telephone served as the keypad.

Also at this time CCETT developed a means of communicating data over a network that broke the data down into discrete units (or packets) from which a message could be reconstructed. This greatly improved the efficiency of data communications (characterized by intermittent bursts of information) by eliminating the requirement that a communications circuit be dedicated to each data call in the manner of a voice telephone call (characterized by fairly continuous communication). Because this norm was well in advance of other efforts, it was validated by the

CCITT as the international X.25 packet switching standard and the norm for virtually all data communications worldwide, a considerable achievement for a young organization.

C. Research Competition with the British: The Chicken, the Egg, and the State

British research was focused on another area, the code that would be necessary to display text and rough (very low resolution) pictures on a television screen. Both the BBC had an information service called Ceefax that came out in 1972 and the Independent Broadcasting Authority had a system called Oracle. Work on a common communications standard (that would become Prestel, the British standard) was thus well underway when the French proposed that they take their own proposed standard (Antiope, for *Acquisition Numérique et Télévisualisation d'Images Organisées en Page d'Ecriture*)⁵ and conduct joint research to build a more powerful standard. The British standard did not support accents, which would be required of a French norm. However, the British reported that they were too far along to cooperate with the French.

A French team visited the British research labs in January 1976 and were "shocked" to learn that although their work was still a research project (the first Antiope terminal had just been delivered), the British already had functioning systems, with information distributed both by television signals and by the telephone network (Giraud in Ancelin and Marchand (1984), p. 6). Although the French had something to display in public in the Fall of 1976 they were both overshadowed and embarrassed at the Berlin Trade Fair in September 1977. Before this,

they were completely unaware that Great Britain had resolved to develop an offensive marketing strategy aimed at capturing foreign markets. [They were] stunned by the imposing British demonstration

⁵ But also, somewhat more playfully, the daughter of Nycteus, king of Thebes, who was seduced in her sleep by Zeus who had disguised himself as a satyr.

and the lead they had so brazenly acquired (Marchand (1987/1988), p. 27/25).

The French counterattack was both political and technical. Using a formal "question" posed in 1974 to the *Comité consultatif international des radiocommunications* (CCIR, another permanent organ of the International Telecommunications Union) by the Japanese on the transmission of fixed images, the French obtained in May 1976 the creation a work group to sort out the conflict. This group would be presided over by a French engineer. This "battle over norms" then began to enlarge itself and was moved to CCITT rather than CCIR by the *Conférence Européen des Postes et Télécommunications* (CEPT). "The French sought to eliminate British teletext (textual images delivered by broadcast signals) and to converge with a more advanced version of Prestel." By the CCITT meeting in June 1978 in Munich this conflict over technical standards "began to be taken seriously outside of a narrow circle of French and British specialists" (Giraud in Ancelin and Marchand (1984), p. 7).

After the Berlin show the French also turned their attentions to the development work they needed to do to catch the British. The directeur générale of France Telecom requested a report and propositions on how it could be done. In January 1978 the first proposals were made for a demonstration project in the Paris suburb of Vélizy of a home terminal and for an electronic telephone directory to be tested elsewhere. The proposal for demonstration projects was new ground for France Telecom, which had never before engaged in this kind of development exercise.

Even more novel was the intended market: the electronic directory terminal (the name Minitel had yet to be coined) would be distributed to telephone subscribers as a replacement for the paper directory. If it could be done, this would solve some of Telecom's most pressing growth-related problems. The directory assistance service

was constantly deluged with calls and plans were underway to both computerize the directory for the benefit of the operators and to double their number by 1985. The paper telephone directory was also overwhelmed by the increase in telephone subscribership. Due to printing delays the directory was running 18 months behind schedule and thus was substantially out of date by the time it reached subscribers. The twelve million subscribers expecting a directory could be expected to double by 1986, and the paper necessary to produce the directory was expected to quintuple (20,000 metric tons in 1979 to 100,000 by 1985) while the price of paper would double. So the directory, already running a huge deficit, could be expected to become an even greater drain on the agency's resources.

Bureaucratic rivalries also figured in the decision to pursue an electronic directory:

France Telecom had no intention of making France's state printing house, the *Imprimerie nationale*, a powerful lobby with which it would have to contend at every turn (Marchand (1987/1988), 33/30-31)

Likewise, as Vedel and Charon (forthcoming) write, cooperation between France Telecom and *Télédiffusion Français* (TDF), which had begun experimenting with broadcast teletext, was "hardly conceivable." The electronic directory project gave France Telecom the justification for acting both dramatically and unilaterally.

The proposal to distribute 30 million free terminals at the rate of 4 million annually was reached after more traditional ways of getting the terminal into the hands of citizens were rejected. Market research showed no interest on the part of consumers to purchase a terminal even at its lowest possible price (around \$100.) Banks and mail-order houses were approached as industrial sectors with an interest in financing the distribution but both declined. Ultimately, it was proposed that the famous chicken-and-the-egg dilemma be solved by beginning not with either the con-

sumer or the producer but with "a compelling third party" to the classic dilemma: the state (Perier (1988), p. 22).

D. External Validation for Bureaucratic Expansion: The Nora-Minc Report

Through fortuitous circumstances, France Telecom's internal report on strategies for the development of new services became available at the same time as a report on the "Computerization of Society" that had been commissioned at the same meeting in April 1975 that had approved the telephone development plan. Written by two career French civil servants, the report was both read and reported widely, becoming the first government document to be a bestseller. "'There were no direct ties' between France Telecom's proposed plan and the Nora-Minc report, although it was obvious that 'they shared a common approach'" (Marchand (1987/1988), p. 35/33).

The report covered a number of different themes, but two in particular were crucial to France Telecom's expansion plans. First, the report saw in the increasing interconnection between computing and telecommunications (called "*la télématique*") a means by which France could wage war successfully against the domination of their domestic computer market by IBM, which they identified as "even more powerful than American domination in other areas" (Nora and Minc (1978/1981), p. 63/68). The threat posed by this hegemony was compared with the market power of the oil exporting countries and found to be even more dangerous to France:

If a number of companies of similar size share the task it will be possible, despite the risks of monopolization, to ensure a vigorously competitive market and they would neutralize each other. But the overwhelming power of IBM unbalances everything: it can impose the fashion, rhythm, and means of computerization. Mastery of the network is thus an essential objective (Nora and Minc (1978/1981), p. 67/74).

The need to take the lead in telematics therefore characterized as a vital element in the defense of national sovereignty.

More broadly, however, technological change was recognized as being a key factor in social change: "For a hundred years now, the most spectacular transformations of society have had technological bases" (Nora and Minc (1978/1981), p. 15/9.) But they represent this source of change as one that is subject to guidance.

By the institutional unrest to which it gives rise, data processing, properly used, may provide leverage for [the] evolution [of greater decentralization.] (Nora and Minc (1978/1981), p. 107/119).

They cautioned readers that

it would be unrealistic to expect computerization alone to overturn the social structure and the hierarchy of power that governs it. The traditions and cultural model we have inherited from our history favor centralization and administrative proliferation...our traditions stand in the way of initiative and adaptability required by a society based on communication and participation (Nora and Minc (1978/1981), pp. 5-6/12-13).

But while it could be used "to reinforce the mechanisms of rigidity, authority, and domination," they called for "a deliberate policy of social change" that would "utilize the potential" of telematics to "facilitate the coming of a new society" and "enhance adaptability, freedom, and communication in such a way that every citizen and every group can be responsible for itself" (Nora and Minc (1978/1981), p. 13;15-16/6;10-11).

Telecom's administrators took advantage of the popularity of the Nora and Minc report and delivered to the Council of Minister's meeting in the Fall of 1978, a few months after the Nora and Minc report began circulating, a broad-ranging proposal for experimentation in telematics that went well beyond the scale of the effort underway in the UK. Although the administrators of Telecom may have wished to wait, they were forced by the British and by the opportunity presented by the Nora

and Minc report to seize the opportunity. "Not a month went by in which the Anglo-Saxon press didn't herald a new success of Prestel," which was quite disturbing to the newly-empowered telecommunications administration (Abadie (1988), p. 39).

An even greater disturbance was the pressure within the government to cut back on Telecom's budget, which in 1979 was to diminish by 4.3%, the first reduction since 1975. Telecom was running slightly ahead of predicted telephone subscribership and the promotion of the nuclear energy program was rising in importance since the oil price shocks of 1973-4. So the directeur générale of France Telecom proposed a six part strategy for consumer information services: an electronic telephone directory for which subscribers would be given a terminal, videotex for the general public, voice-frequency telephony, consumer facsimile, and the launching of a communications satellite. Field trials for the first two elements were approved (but not generalized distribution of terminals), and approval was later given to the launching of the satellite. At the same time, the government's pursuit of counter-cyclical investments gave France Telecom the political support necessary to maintain a high level of spending. During the period in which the telematic program was planned and nurtured in research laboratories state-led investment policies were the subject of policy-making at the highest levels. Public enterprises increased their investment 91% between 1974 and 1980 while private sector investment fell 5% (Hayward (1983, p. 236). As Stoffaës (1989, p. 114) writes about industrial policy during this period:

Two major national investment programmes were initiated in the electronuclear and telecommunications sectors. These would henceforth play a driving role in developing productive investment, each representing investments on the order of 1 per cent of GNP. They would thus pick up the investment slack left by other national companies' declining investments.

These expenditures were perhaps the single most important means by which France fought the recession produced by the oil shocks. Moreover, they were globally successful:

During a difficult period for the world economy, France recorded the highest average growth rate, 2.8% per annum, of any industrialised country with the exception of Japan during the years between 1974 and 1981 (Derbyshire (1990), p. 68).

Thus can be seen a logic operating at level of national economic policy-making that allowed France Telecom's telematic program to go forward.

E. Subduing Domestic Opponents: Conquering Industry and the Press

Initial consultations between France Telecom and a group of representatives of four equipment manufacturers went badly. The mass production of a simple terminal at a minimal price offered them little profit. Their first estimate of the cost was closer to \$1000 per unit than Telecom's target of \$100. Worse, the high profile program offered high risks. A change in political priorities could bring the project to a premature end after all the development costs had been sunk, but before the mass purchases envisioned to endure for a period of ten years had given them the opportunity to amortize their investment.

No sooner had agreement been reached for an initial 4000 terminals, however, than a far greater obstacle presented itself. The proposal to test videotex in Vélizy had been made back in 1977 and came with the political support provided by the deputy-mayor, Robert Wagner, who had chaired the National Assembly's PTT budget committee for 17 years. The test of the electronic directory, however, was located in the department of Ille-et-Vilaine (Brittany) not because it had a representative population but because the laboratories of CCETT were in the center of the *département*, the city of Rennes. But the political environment of Rennes was hardly congenial. The newspaper Ouest-France virtually monopolized the regional media and

its owner, François-Régis Hutin, saw France Telecom's experimentation as a tremendous threat. The campaign of opposition he launched in the summer of 1979 was taken up by other newspapers nationwide and by a significant number of elected officials. It slowed the telematic program considerably and forced France Telecom to accommodate this opposition.

In a sense, France Telecom became a large, easy, visible target for broad fear and discontent in the newspaper industry. First, the Directeur générale of France Telecom, Gérard Théry, announced Telecom's plans not in Rennes or even in France but at an international communications trade fair held in the US. A week later parts of his speech were published in Ouest-France. The regional press, already nervous about losing classified advertising revenues to new media, took Théry's talk of ending "a civilization based on paper" very much to heart. The publishers had been fighting against pirate radio stations and cable television and had used their influence to erect barriers against the growth of television advertising. At the same time, the Ministry of Finance once again proposed abolition of a part of the tax code that since the Liberation had allowed publishers to shelter their profits for purposes of modernization. The telematic proposal gave the publishers "a sharply defined adversary... who in all innocence sallies forth, exposed, in white gloves and red trousers and a feather in his cap," as the person in charge of leading France Telecom's defense was to put it (François Henrot, quoted in Marchand (1987/1988), p. 42/39). Hutin's first editorial against telematics in May 1979 was followed by editorials in other regional papers. "Are we not in the presence of another Concorde," he wrote, "created by the technicians simply so they can have the jubilation of being on the cutting edge in this area?" The French nuclear energy program was also cited as an analogous example of technocracy on the loose. Telecom was presented as "a technocratic monster" that threatened pluralism, freedom, and an independent press by positioning itself to seize

the publisher's means of survival in favor of a huge centralization of the media (Perier (1988), p. 37; Charon and Cherky (1985).

By the spring of 1980 the telematic debate had reached the national press and the government was attempting to negotiate a solution. In his counter-campaign against anti-telematic forces, Théry argued the inevitability of telematics:

the debate is not between telematics and no telematics but between French telematics and telematics that comes from elsewhere, and in particular from Japan (quoted in Press Actualité, February 1980, as cited in Abadie (1988), p. 51).

In May 1980, after meeting with Prime Minister Raymond Barre, the regional dailies agreed to take part in the telematic trials if a commission would be set up to negotiate a framework for their participation. Finally, in July 1980 the first technical testing of the electronic directory was begun and press representatives met with President Valéry Giscard d'Estaing and reported his assurance that the electronic directory would only be used to replace the print directory and nothing else (Abadie (1988), p. 53). The prototype was also shown to the interministerial council and the president at this time, but authorization to extend the electronic directory to all of France and go into full scale production of terminals was put off until after the presidential election that was less than a year away.

However, France Telecom's unwillingness to share results of the field trial and inflexibility at the first meeting of the telematic commission reignited the debate at an even more violent level of conflict. By September Le Monde editorialized against telematics as a "threat to the very essence" of a free press. In October press representatives walked out of the meeting of the telematic commission and the issue moved into the National Assembly.

The anti-telematic coalition in the parliament was broad, including politicians from every party and region. In the Assembly an amendment was proposed to cut

\$83 million from the PTT's budget to end telematic experimentation until the legislature could revise statutes governing the press. Théry's defense of telematics again cited international competition, although this time more cultural than technological:

To fight against the Americans is also to fight against the transmission of their cultural models. This is the challenge: guarding our language. Why? Because quite simply the Americans are in the process of putting everything in the world into memory banks, thanks to their data bases. And the American means of viewing the world is not necessarily the same as our own (Le Point No. 427 (24 November 1980), cited in Abadie (1988), p. 59).

In the legislature, France Telecom countered with proposals to limit the testing to six months and 2,500 people, set up another telematic commission, and not broaden the experimentation without parliament's approval. But it wasn't until the PTT minister announced in December that the pilot test of Teletel, to go online in Vélizy the following Spring, would not carry any classified advertising that the debate was brought to a close.

F. The Field Trials: Inventing the Medium

In May 1981 the trial of the electronic directory by 1,500 users in Ile-en-Vilaine began. The first tests in the summer of 1980 had been disappointing, an internal France Telecom report showing that even after some weeks of practice 40% of the initial users could not find the phone number of someone whose name and address were known to them (Perier (1988), p. 53). In another test of different kinds of dialogues people were led to a room with a terminal and invited to use it while in the next room their interrogation of the data base was observed. Researchers were surprised to find that even people who had not the least success in finding a telephone number nonetheless reported that the device worked quite well and they were pleased with it. What had begun as a way of improving the man-machine interaction instead

showed "the terror that the terminal inspired. People panicked at the idea of seeing progress pass them by" (Abadie (1988), p. 91). In their homes, however, the same feelings could be manifest by simple avoidance, which many potential users preferred to using the terminal. A CCETT study in late 1981 and early 1982 found that only 25% of users consulted the directory regularly (at least once a week) while 45% never used it at all (Charon and Cherky (1986), p. 95). Nor was there a latent mass demand for an electronic directory. An April 1981 poll found three-quarters of the respondents with little or no interest in one (Abadie (1988), p. 164).

At Vélizy⁶ the device being tested was not a stand-alone terminal but a piece of hardware that incorporated a television set as for a display of text and graphics that was now being called Teletel. Yet, the service offering was far more complex: Not just a data base for telephone directory inquires but a range of services developed by local authorities and private companies and thus requiring negotiation and cooperation. As noted above, the political environment was entirely different here. In Vélizy "Teletel blended perfectly with the "modernism" of [Mayor] Robert Wagner and they invested in new media to confirm the city's image." Public demonstrations were even held to demand inclusion in the experiment (Charon and Cherky (1984), p. 16-17).

Since the blistering parliamentary debate of the previous Fall, however, political support at the national level was more tenuous. Mindful of the political calendar and fearful of electoral results that would lead to further delays or the outright cancellation of telematic experimentation the project team "had only one goal: open before the elections." Three private public relations agencies were retained at a cost of \$250K to manage the public image emanating from the experiment (Abadie (1988), p. 65, 68).

⁶ More accurately, the experiment was conducted at Vélizy, Versailles, and Val-de-Bièvre and thus called Teletel 3V.

The experiment was finally opened in July of 1981 by the new Socialist PTT minister Louis Mexandeau, whose remarks included criticism of Telecom. The agency "must ask itself today if it did not, in all good conscience, contribute in these recent years to the creation of the conditions that would lead to a rejection" of its efforts. He took the opportunity to announce a reorientation of telematics:

It is necessary not to confuse dynamism with authoritarianism. Thus if a public service is able to give the impression of wanting to impose "tout télématique" like EDF [Electricité de France] wanted to impose "tout nucléaire" one shouldn't be surprised that citizens have a reflex of fear.

He made it clear, however, that the new government would support telematics, but that the new device would only be placed in the homes of citizens who requested one (Perier (1988), p. 47). Many had expected a substantially greater redirection of telematics, which was little changed other than by making the distribution of Minitels voluntary and the accommodation of the newspaper industry (Cayrol (1986), p. 200). France Telecom rewrote program's goals after the Socialist victory to account for their rhetoric without changing the underlying policy, so as "to ensure huge industrial orders and sustain the new *grand corps* status of the DGT" (Dyson (1986, p. 36).

As to the content of the Vélizy offering, a "non-exhaustive" list in Ancelin and Marchand (1984, p. 17) includes services from 122 private and 45 public entities including a dozen banks, 26 media concerns, and everything from horse racing to the Catholic church. Users showed greater interest in electronic messaging than predicted, "but in the framework of a policy of control exercised by the project team, with a severity and seriousness that reflected the image of this as a national and international showcase." Only non real-time messaging was permitted, only one electronic mailbox was permitted per household (all family members would have to share one), and the list of topics tightly controlled.

Despite this, the test revealed a great deal about the future profile of Teletel use. There were heavy age, gender, and social class disparities with young, male, and higher social status citizens far more likely to be found among the major users. A third of the households simply didn't use the terminal while a fifth of the households accounted for 60% of all calls. Further, this consultation was also heavily concentrated. Of almost 200 service providers that had participated, the top 15 received three-quarters of the traffic (Marchand (1987/1988), p. 55/54; Abadie (1988), p. 73). Half of the calls went to the top five services: two newspaper services, games, electronic mail, and the French national railway's service (Perier (1988), p. 51). It was clear that one of the big winners would be services created by newspaper groups, which would soon "pass from taking the role of the brake to that of the motor" of telematics (Gurrey and Miguet (1990), p. 15). Teletel had been virtually free to the initial users (\$1.50 an hour), so it still was not clear what people would be willing to actually pay to use telematics.

The biggest breakthrough of the early experiments came in Strasbourg, where the newspaper Les Dernières nouvelles d'Alsace (DNA) created a service called Gretel. Several thousand terminals were distributed for a test in which the mix of services was quite similar to that at Vélizy. However, a real-time messaging capability, that had been created as a means to guide lost users back to their proper path in the information system, was allegedly pirated and used for interaction among the users themselves. At odds with this official history are later interpretations which cast doubt on this genesis: "In fact...if certain institutional actors hid themselves behind chance or accident, it is without a doubt to avoid responsibility" (Bruhat (1984), p. 53). Indeed, it appears in retrospect that this service--called a messagerie in French--was conceived to be pirated. It could have been locked up after it was discovered,

either by identifying the terminals using it⁷ or by establishing a system of passwords. Instead, "the path chosen was to institutionalize the pirating," which was seen as "the price to pay for making the experiment work" (Bruhat (1984), p. 57, 61).

Whether by chance or design the result was "a second act of birth for Gretel" that led some to purchase terminals directly from the Telic factory near Stasbourg. Yet, as Marchand and Ancelin (1984, p. 17), write:

more surprising still was what happened once they were online. It was only necessary to type on a keyboard to dive into a space of freedom that no other media offers today.

Due to this discovery, the mean number of calls per week per terminal (between four and five) was four times higher than at Vélizy.

Polling data showed just how critical this service was. Fully 70% of participants used the messagerie, and 80% of those used it every time they called. More than half (57%) said they would continue to call Gretel if the messagerie were the only service available, and 40.5% of the messagerie users said they preferred it to television. 62% of the messagerie users made actual real-time rendez-vous with people they met on Gretel with virtually half of them (45%) having met more than six people. As with at Vélizy, however, the users of Gretel were overwhelmingly male (77.5%) young adults (50% were between 25 and 39 years old) (Iwaasa 1983). It should be noted that the Teletel 3V project team considered offering the capability for live, uncensored real-time interaction but rejected it out of fear that it would lead to pornographic or illegal exchanges (Perier (1988), p. 50). Until 1984, the DNA service was the only messagerie in France, the pioneer of what was to account for

⁷ Each Minitel emits a unique electronic "fingerprint" that allows its make and model and, conceivably, its owner to be identified.

40% or more of the hours generated by mass telematics (Marchand 1987/1988), p. 93/91).⁸

Although in many ways disappointing, these field trials revealed many of the future patterns of videotex usage. It is revealing to note that even before the first trials began--just a few days before the presidential election in April 1981--France Telecom had already ordered 300,000 terminals (now called Minitels) from Telic-Alcatel. Another 300,000 were ordered in November 1982, so even though the number of Minitels in households wasn't more than 11,000 at the end of 1982 and no approval for their general distribution had been given, Telecom was determined to move forward. Seen in this light, the "field trials" are more accurately characterized as attempts to validate and justify decisions already reached for other reasons than experiments to test the viability of the medium. It was only at the official opening of the electronic directory in Ille-et-Vilaine (4 February 1983, the date from which the service would be open to any household requesting a Minitel) that France Telecom acknowledged that the electronic directory and videotex were

two sides of the same coin. Until then it had skirted the issue of their obvious complementarity to avoid providing more grist for its opponents' mill. It had even gone out of its way to make a number of convoluted and incomprehensible pronouncements on the subject, which just goes to show that it is no easy matter to deny the obvious (Marchand (1987/1988), p. 77/75).⁹

⁸ What is reported as 50% of traffic in the French original has been revised to 40% in the English translation, reflecting France Telecom's role as sponsor of the translation, its policy of downplaying the importance of the messageries, and the effort it has made to control the statistical portrait of Teletel usage.

⁹ "Two fingers from the same hand" in the French original.

In October 1982, the *Cour des comptes*¹⁰ estimated the Teletel program's total cost to be \$22.8 million.

G. The Commercialization of Telematics

With the official opening of the electronic directory service a schedule was announced by which the service would be opened, and free Minitels offered, in the rest of France. Mexandeau also announced that he'd signed an order for an additional 600,000 Minitels.

Teletel was opened nationwide in 1983, although at first only by access numbers that were associated with modest price rates most suitable for services for a professional audience. By dialing 3613 one could reach the services on Teletel 1, which was free to the caller but for which the service provider paid the communications charges (\$1.20 an hour). The access number 3614 was set at \$3.70 an hour, payable to France Telecom either by the caller or the recipient of the call at the choice of the company involved. This rate made it suitable for communications between companies and their clients (banks, electronic catalogue sales, etc.) but didn't permit profit-making telematic services.

Decisions regarding the pricing mechanism for services destined to be used by the general public were made in close concert with the publishing industry, to avoid once again provoking the opposition of the newspaper industry (Perier (1988), p. 67). Thus services available by the access number 3615 would be priced at \$9.80 an hour, of which three-eighths (\$3.70) would be retained by Telecom and the remainder (\$6.10) remitted to the service provider. Only officially registered publishing concerns (those that had a *numéro paritaire*) would be allowed to use this innovative billing system, called the kiosk, which was a significant financial incentive for the

¹⁰ equivalent to the General Accounting Office in the US.

publishing industry to revise its opinion of telematics. This monopoly was to remain in force until 1987.

At the end of 1983 there were 110,000 Minitels distributed and 145 services available. By the end of 1984 the strong performance of services on the kiosk, which had begun in February, began to be felt. Although they accounted for only six percent of available services (57 out of 844), they generated 29% of total connect hours (IDATE (1987), Table 4; Perier (1988), p. 69) of the just over half million Minitels that had been distributed.

1985 is known as the "take-off year" of French telematics. At the end of June the kiosk accounted for 63% of total Teletel traffic generated by (as of September) a million Minitels. With the expansion of usage came an unforeseen problem: the oversaturation of the network to the point that it was no longer able to function. In June Teletel use brought down the French national data network Transpac (which also served virtually every enterprise engaging in computer communications, including banks, credit agencies, etc.) When France Telecom announced it would suspend distribution of Minitels in July and August and limit access to the kiosk during hours of peak demand, the press organizations protested this slowing of telematic expansion, which was proving to be quite profitable for them. For example, in 1986 the telematic service of the newspaper Le Parisian Libéré (consistently at or near the top of the list of the most popular telematic services) accounted for around 8% of the revenues of its parent, the publishing group Amaury, yet it provided about 16% of the group's profits (Gael de Kertanguy, personal interview 12 June 1987). The storm of publicity that followed brought Teletel to the attention of an even greater audience.

The kiosk billing mechanism eliminated the need to subscribe to services before using them, which had been the common way users gained access to videotex services in other countries. And the free distribution of terminals eliminated the

requirement, also uniformly applied worldwide, that users purchase or rent a computer or terminal before being able to try videotex. The French telematic program also benefitted from an unprecedented level of standardization. All services could be designed to take advantage of eight common navigation keys built into each Minitel (next page, previous page, etc.) that virtually eliminated the requirement that a potential user learn a set of commands to use an online service. The common nationwide access numbers were also highly publicized, particularly the ubiquitous 3615. It became universally recognized as indicating a telematic service in the same way the public recognizes that the letters FM indicate that the number preceding it refers to the place on a radio dial a particular station may be found. All of these contributed to an enormous expansion of telematic traffic in 1985 and 1986. Thus, even as the number of installed Minitels increased six-fold from the end of 1984 to the middle of 1987, total network traffic grew 13 times, meaning the average usage per terminal more than doubled.

In early 1987, however, the exponential increase in telematic traffic began to level off. In March 1987 came the first decline in kiosk traffic in a non-summer month. Although usage had shown marked seasonal variation previously, with a decline in summer months, growth had always returned in the fall. The importance of this take off phase cannot be overestimated because it was during this time that early investments in telematic hardware and software were amortized.

Following only a minor increase in 1988, the reimbursements to kiosk service providers again grew in 1989, as shown in Table 4. The five million Minitels distributed were now present in 19% of French households containing 23% of the workforce. If Minitels in the workplace are included, 27% of the population (38% of the workforce) had access to a Minitel (all figures are end of 1989 from Teletel

Newsletter Special Issue No. 5 "Teletel: 1989 Facts and Figures") When the Minitel

Table 4

Reimbursements to Kiosk Service Providers¹¹

<u>year</u>	<u>amount in million US\$</u>	<u>percentage increase</u>
1984	2.98	--
1985	46.40	1457
1986	137.00	195
1987	210.66	53
1988	225.00	7
1989	295.00	31

2 was launched in November 1989 the policy of distributing terminals without charge was quietly modified. The Minitel 1 is still distributed without charge but no longer manufactured. The more capable Minitel 2 is available for \$4/month. Thus subscribers may wait for a Minitel 1 to be returned to the agency serving their area or they may pay the monthly charge for a Minitel 2 or other more advanced Minitel (Jean-Paul Maury, personal interview 14 March 1990).

To cleanse its image from the association with the sexually-oriented services, a 50% sales tax was imposed upon "obscene" messageries in 1991. Some were forcible closed down, while those remaining withdrew into the obscurity the tax policy was designed to bring about.

H. Conclusions: Building Mass Market Videotex

While there are, as always, layered explanations for how a modern state came to pursue a particular policy, the analysis presented above favors the critical role played by the telecommunications administration's desire to achieve the status and prestige long-enjoyed by other branches of the French administrative apparatus.

¹¹ France Telecom, Teletel Newsletter Special Issue No. 5, "Teletel: 1989 Facts and Figures," converted here into dollars at a constant exchange rate of \$1 = 6 FF.

Because it was able to gain control of its environment (both internally and the successful conquest of the equipment industry), it could take advantage of the Nora-Minc report and place a huge investment strategy before decision-makers at just the time that overall national policy was geared towards counter-cyclical investment during a worldwide recession. Following the 1981 Socialist victory and the resulting nationalizations, 50% of large-scale industry was state-owned, their research and investment strategies even more closely tied to public policy (Stoffaës (1986), p. 42).

The French state's desire to control a key area of technological development is the far from invisible hand guiding the creation of this medium and this industry. In particular, the need to maintain investment in the firms that were now quite dependent upon France Telecom's patronage, the desire to see its huge industrial restructuring pay off in the conquest of international markets, an effort to control its costs in a time of vast expansion, and a wish to join the ranks of the powerful ministries by having their own prestige project led France Telecom to adopt the telematic strategy. Even if success in export markets has proved elusive,¹² as Vedel (1984) shows, the popularity of administrative careers in telecommunications (a key measure of prestige) has undergone substantial improvement.

Yet, the price France Telecom paid to implement its program can be seen in the truce it made with the French publishing industry and the uncomfortable and ambivalent accommodation of the messageries. The opposition of the press was solved by purchasing its support, becoming another means by which the state subsidized an already heavily protected publishing industry (Charon (1991a, p. 124). More troubling was that France Telecom's investment brought it mastery over a medium whose social role and function, in the case of the applications generating the most income,

¹² discussed in the concluding chapter.

proved a surprise and an embarrassment. To understand the uses to which the medium is put, we turn to a deeper analysis of the medium that this development activity produced.

III. The Medium and its Audience

There are two key facts for understanding the Minitel audience. First, although the physical device is widely distributed, usage of it is concentrated. While this must be understood in its proper context, it is still substantially more concentrated than the usage of other media. Second, the medium's audience may be divided into two broad categories: users who engage the device to play and users who are searching for information. It is as if the radio audiences seeking news and music were separable. As a consequence, one can make the broad distinction between information- and communications-oriented services. While information-oriented services generate the greater number of calls, the communications-oriented services are more important in terms of the hours of connection they generate.

A. Studies of the *Minitelists*

Although France Telecom does not provide the statistics that would make a precise distinction possible, one can observe the evolution of telematic usage by looking at the declining relative importance of the kiosk, 3615, the network on which one finds virtually all of the messageries. Since peaking in 1987, the amount of traffic accounted for by services on the kiosk have declined both relatively and absolutely. In December 1986, for example, kiosk traffic accounted for 69.3 minutes/Minitel/month out of 118.5 m/m/m, or 58.5%. As measured by number of calls kiosk traffic accounted for 9.5 calls/Minitel/month out of a total of 24.2, or 39.3%. By the end of 1989 that had declined to 33.5 m/m/m out of total traffic of 90 m/m/m or 37% of traffic and 4.4 calls/m/m out of 21.9 or 20% of all calls. Over

that same time period, however, traffic on the other access numbers grew from 28.3 minutes/m/m or 23.9% of the total (6.4 calls/m/m or 26.4% by that measure) to 39.8 m/m/m or 44.2% (9.0 calls/m/m or 41.1% of calls). This other traffic has been more oriented toward information transactions (electronic banking, teleshopping, etc.) that generate calls of shorter duration. In the same period calls to the electronic telephone directory remained relatively constant.

In terms of the concentration of usage, a 1988 study found that just 3% of Minitels account for 31% of traffic volume; a quarter of the most used Minitels generate 71% of volume. At the other extreme, 61% of the least active Minitels in households produce only 17% of online usage (MV2 Conseil (1988) p. 24.)¹³

Minitel usage is heaviest among the younger and better socially situated strata of the French population. Although the principle user is now just as likely to be female as male (MV2 Conseil (1989, p. 26), half (49%) of Minitel users are under 40 years of age. The 31 to 40 age group has consistently contained the largest percentage of users, by itself accounting for about a third of all minitelists (p. 66).

A major study conducted by the *Institut National des Etudes Economiques* (INSEE), gives a more complete demographic description of the users and their patterns of use. Ten thousand households were surveyed for their media usage, after which the households that had high levels of communications equipment and at least some usage of them were given diaries with which to record their usage for a week. Two reports interpret the results from this study, Chabrol and Perin (1989) and Arnal and Jouët (1989/1991)¹⁴.

¹³ The study shows that Minitels in professional settings account for three to six times the usage of Minitels in households (p. 24), but that is not our concern here.

¹⁴ French version 1989, English 1991.

Chabrol and Perin's report shows a relatively weak level of usage. Individuals report 0.9 Minitel calls/week. Fully 62% of individuals did not use it during the week of the study, versus 30% for the telephone (p. 6). However, the picture is somewhat different if one looks at households. Almost two of three households (64%) having a Minitel used it during the week of the study, a result that was confirmed by the larger 10,000 household survey that found 59% used it at least once a week (p. 10). Among those individuals having made at least one Minitel call a week, the average number of calls was 2.3 (p. 11).

It also finds usage highly concentrated: 26% of users (the Electronic Directory included) generated 60% of calls. This concentration was even more pronounced when the Electronic Directory was excluded and usage measured in hours rather than calls: 20% of users generate 70% of total connect time (p. 6). Half of all calls are to the Electronic Directory. Transactional and information services generate more calls than games and messengeries. However, in terms of connect time, the messengeries contribute 40% of all traffic, which rises to 52% if the Electronic Directory is excluded (p. 7).

Among those who used the Minitel at least once during the week, 10% of the users made more than a quarter of the calls (26.5%) and about a quarter of the users (26%) made 57% of the calls. The top 6.8% of Minitel users (on the individual rather than household level) made 21.8% of the calls (p. 22). The 14% that make the greatest number of calls account for 36.5% of connections and 46.9% of total connect time (p. 23). The sociological profile of nonusers did not appear to differ significantly from that of users, although people in the 18 to 29 age group, those over 60 years old, the middle level professions, and the retired used it most. The greatest indicator of heavy usage in the home was having access to one at work (p. 12).

The most important social categories that describe a good proportion of users are the employment categories *cadre supérieur* and *employé*, the households having had Minitel longest, the 44-59 age group, and single person households. Excluding the Electronic Directory, the most important categories were the age groups below 35 years and single person households (p. 24). In general, the transaction services attracted the older users and the diversionary uses attract younger ones. It is important to note that among households having used Minitel at least once during the week (if one excludes usage of the Electronic Directory) the behavior of single households contrasted with multi-person households. All other sized households cluster closely around the mean usage of 38.1%, while 43.2% of single households reported usage of non-Electronic Directory services (p. 26).

In conclusion, Chabrol and Perin report two basic kinds of users: those who make consult functional services and a smaller group who engage in entertainment by means of Minitel, meaning either games or messengeries. They conclude that it is primarily a functional medium, because "services for play or having interaction between people as their dominant application only represent 13% of all calls and 28% of all Teletel (ie. exclusive of the Electronic Directory) calls." Yet, the messengeries represent 38.8% of total connect time (p. 33). While the messengeries and games are important for young adults, that usage tends to mature over time into "an ensemble of services more functional in nature" (p. 28, 29).

What confounds the picture is that not all messengerie users fall into the category of heavy Minitel users. About 80% of the messengerie users fall into the heavy users category while most of the rest are classified as moderate users (p. 42). A very strong percentage of single households fall into the heavy users category: 16% of the single households fall into this category compared with 9% of the ensemble.

Chabrol and Perin's analysis of co-variance accounts for only 28% of the variance by traditional variables. The significant factors turn out to be a combination of age/sex/job classification, income, telephone usage, and professional user of computers. Other variables tested (region, profession of the head of the household, the time spent at home, the size of the household, access to Minitel at work) did not show significant effects.

They finish by contextualizing the nonusage of the Minitel. While 62% didn't use their Minitel during the week of the study, almost the same number (56%) didn't read a book, and 42% didn't use their VCR. Almost a third (31%) didn't use the telephone and a quarter didn't use the radio or read a newspaper. Everyone, however, watched TV (95.8%). While communications good and services consumed about 4 hours 40 minutes, or a fourth of the time spent at home, television accounted for half of it and Minitel usage for only 0.3% of the time, telephone usage for only 1.3%. Even among the "precursor" households Minitel usage only accounted for 3% of total communications time (pp. 52, 54).

Arnal and Jouët (1991) provide a multivariate analysis of individuals in Minitel-equipped households that results in a six group classification scheme. There are two groups of non-users, those who are retired (22% of the sample), and those who are outside of the workforce (students and non-working women who make up 21%). They were, particularly the latter group, heavy television viewers who rarely go out and thus "don't need Minitel to organize their diversions or better manage their daily affairs" (p. 25). Another 20% exclusively used the Electronic Directory. This group as well engaged "in few recreational activities outside the home" (p. 26).

A group that used a more diverse range of services, including include those geared for recreation and diversion, made up 16% of the sample. They used the Electronic Directory, teleshopping services, and electronic banking. Unlike the

previous groups, "these users go out a lot to shows, concerts, and restaurants. They take vacations...[and] are mostly in the 26 to 40 age group and the majority are male" (p. 26). However, they were of relatively modest social status and income.

Arnal and Jouët place 13% of the sample in a category they call "comfortable users," meaning they have monthly incomes of greater than 10,000 F. The top services cited were utilitarian, such as banking, shopping, and transportation services, but they also used services that provide entertainment listings as well as the messageries. They have "a lot of everything," write Arnal and Jouët, meaning they go out frequently, socialize a lot, engage in sports, and take vacations.

Their final category is users of professional services, which accounted for 8% of the users. They used the device a lot (more than ten connections per month) but were not playing with it. Rather, they tended to be people who conduct a portion of their business from their homes.

Arnal and Jouët then eliminated the non-users (the first two groups of this typology) and focused exclusively on the users. Individuals who only consulted the Electronic Directory were also excluded, since their minimal usage (four times a month) meant they had no Minitel-related expenses and were closer to being non-users.¹⁵ They then develop a second typology that examines only the 35% of the total sample who regularly partake of a broad selection of services.

In this second framework, a professional users make up a sixth, a quarter are "young executives living in cities" (their usage is primarily utilitarian such as banking, transportation, tourism) who typically are between 26 and 30 years old and live alone, and a fifth are users less than 25 years old (high school and university students who often consult play-oriented services such as games and the messageries). "Employed

¹⁵ The first three minutes of any call to the Electronic Directory are free.

women from reasonably comfortable social classes" account for 17% of the subset (they see telematics as a means of household management and thus are major users of teleshopping services), and the "young retired" make up 14% of the subgroup (they consult most frequently the Electronic Directory and electronic banking). Finally, those who engage in telematic activity as a hobby make up 8% of the users of Minitel. They are "a rather young group, principally composed of people outside of the working population who are either in training or in search of work, as well as blue collar workers" (p. 29). They use classified advertising services, games, and the messageries.

Arnal and Jouët conclude that while in general telematic usage is distributed in conformity with what social class and income would predict, other variables come into play. Telematic usage is also taken up by people of more modest means and social standing,

who in general are young [and] show a very positive attitude toward technology....Openness to novelty and to adoption of a lifestyle built around new media also appear to be factors susceptible to favorably influencing the intensity of telematic usage. The avant-gard in this domain is thus not defined only by social class. Age is another important variable to take into consideration, with a number of other factors that are more difficult to measure but which show a relationship with the behaviors that are linked to social transformation (p. 30).

But rather than concluding that telematics has had a modest impact, they conclude instead that the "specificity of telematics" mitigate against its comparability to broadcast media.

In fact, videotex is not a broadcast medium comparable to the classical media in this domain like radio and television. It is a technical framework for information dissemination conceived as such and, most of the time, used in that way. One can see that practical services are the most important for all social categories and gather the greatest number of calls. These are in general brief and to the point, responding to needs that are, by their nature, occasional (p. 31).

Play-oriented services "only attract a small fraction of the public," and are "less important to global consumption than the practical services" (p. 31). Despite the importance of the usage of play-oriented services for the establishment of the telematic industry,

it is necessary here to reestablish the facts, in opposition to a number of distorted commentaries on the alleged general appetite for these services: the intensity of practices coming from a minority of users must be clearly distinguished from a mass phenomenon, which indeed never occurred (p. 31).

They are, however, exceptionally important because "they are used much more frequently and the duration of calls is, on average, four times higher than practical services" and because "users become attached to the screen and forget about the time or money they've spent" (p. 31).

B. Minitel and the Use of other Media

One finds a difference between the medium's largest audience and its most important one that is not unlike what one finds in the case of television. A fifth of French television viewers consume about 50% of the volume of hours of television consumption. Sixty percent of the top 10% of television viewers are women and 70% of this group are more than 50 years old (Kieffer (1990, p. 6-7). This core of housewives and the elderly are estimated to comprise the largest share (34-40%) of the European television audience (Charon (1991), p. 178). Yet, this is not television's most important audience for those who use it for advertising, which tends to be focused upon what are, in relation to the number of hours of television consumed, minority audiences. For telematics, the most profitable audience are the small minority who use it heavily, while those who engage in occasional use of Minitel have patterns of consumption and a relationship to the device that is quite different.

Television's social impact comes in part from its technical characteristics. Among the most important are its use of presentational symbols rather than discursive,

meaning even basic linguistic competency is almost unnecessary for comprehension, and the heavy reliance upon the close-up image and the resulting establishment of pseudo-intimacy and para-social interaction. But, in part due to these elements and the accessibility they offer, television's social role is determined in large measure by its sheer command of an enormous audience, which creates its social place. As Meyerowitz (1985) says,

television today has a social function similar to the weather. No one takes responsibility for it, often it is bad, but nearly everyone pays attention to it and sees it as a basis of common experience and a source of topics of conversation (p. 147).

By the number of hours given over to this practice, television viewing has, as many have noted, become a pseudo-reality that dominates virtually all other leisure time activities. Although both radio and television may be said to have a demographically identifiable core audience, their usage touches virtually the entire population.

Thus, the fact that 40% of the users of the messagerie Gretel reported in 1983 that they preferred it to television (Marchand and Ancelin (1984) p. 181) shows these users' tremendous commitment to telematics. It also serves to indicate this medium's unique capabilities as well as its attractiveness. However, not only is it not a mass phenomenon but it appears that it is not a practice that is stable over time. It is unlikely that many of those Gretel users who said they preferred it over television still use it.

Unlike broadcasting, which provides a basis of shared experience for its audience, telematics does not lead to "information integration," or the breakdown of isolated information systems. If anything, it is the medium for which access controls are the easiest. Only qualified participants may be allowed access to a telematic service, and further levels of security that close off parts of the system to parts of the audience are easily implemented.

Minitel usage is most closely compared with telephone usage, although there are also important differences. Just 7.2% of French households generate a quarter of the total telephone usage; slightly more than a fifth (21.6%) of the heaviest users generate half of total consumption. On the other side of the equation, the half of the households who use the telephone least generate only a fifth (21.1%) of total telephone consumption (France Telecom--DPAF (1991) p. 36).¹⁶ In this context, the concentration of telematic usage (the top 6.8% users making 21.8% of the calls, the top 14.1% of users generating 46.9% of total connect time) seems only a degree more concentrated rather than something entirely unknown.

In terms of Minitel's integration into the media mix in France, telematics does not have the same destabilizing effect that the introduction of other media has had. Far from forcing the previously dominant medium into a "background" position, as radio did for print and television did for radio, telematics has found a niche in a supporting role. It provides a communications path both for interaction in which the audience member is the initiator (music requests on a radio station, for example) or for which a broadcaster or publisher solicits a response (polls, further information on advertised products, etc.) But the introduction of telematics into the French media matrix has resulted in neither major qualitative nor quantitative changes in media consumption and only minor adjustments on the part of the other media.

Even the most serious substitution effect of telematic usage for communications via other media is somewhat muted. A telematic call often substitutes for a telephone call, but it doesn't move the user from the audience of one medium to the other because there really are not two different audiences. The heavier users of one

¹⁶ The measure used is telephone units, which are not purely a measure of amount of time spent using the telephone but are a function of length of call, time of day, and distance.

medium tend to be heavy users of the other as well. Newspapers may have lost a bit of their function of delivering service-related information to Minitel, but that has to be interpreted as a very minor change relative to what was expected of the impact of new media such as telematics (Albert (1990), p. 107).

To summarize what is known about the use of Minitel, it does not exhibit the consumption patterns of other mass media. Usage is either nonexistent or characterized by occasional calls of short duration, or takes the form of play and diversion. While for some users the medium becomes a means by which they engage in social exchange, that number is quite limited, only a small percentage of the global population of users. Thus, the creators of telematic services must take these patterns of usage into account in creating services.

IV. Conclusions: Minitel's Subordinate Role

The French state has greater control over the media matrix than in virtually any other Western nation, and has throughout the history of mass media shown an intimate intertwining of media and political institutions. The medium exists in France due to France Telecom's ability to control its environment, and its ability to forge ahead despite both elite opposition and indifference on the part of many potential users. Usage of the device is highly concentrated, and while the core of its income-generating applications are communications-oriented instead of information-related, only a small part of its audience is interested in them.

Far from displacing the previously dominant medium, Minitel has been entirely integrated into the current media regime. Although telematics has produced some important revenues for some media groups, there are no new commercial enterprises who rank as among the most powerful in society thanks to their telematic invol-

vement, no equivalent of the press barons or media moguls whose power rested on control of popular communications vehicles.

None of these observations bode well for Minitel's political impact. If media organizations commanded the legal and financial independence they do in the American context, they might look to interactivity as a means of enhancing their role as a leading mediator between governing elites and the population at large. But in France one finds media organizations that are relatively poorly positioned for independence from governing authorities. In establishing the medium, the narrowness of the potential user base was revealed early on, but France Telecom was able to use its growing political power to bowl over opponents and will the medium into being. And, finally, Minitel's user base is far less than everyone but has distinctive demographic characteristics that make speaking to it much different than addressing the nation at large. The size and breadth of the television audience and the time users commit to the practice of television viewing make it a viable conceptual substitute for the electorate. But this is not the case with Minitel and its audience.

And yet virtually all important organizations engaged in political communication have participated in one way or another in telematics. Each has explored the opportunities the mass distribution of the device provides to them in communicating with their voters, citizens, or members. We now turn to the several dozen of their experiences, to uncover what they were able to learn about the applicability of interactive media to communications with their partisans, citizens, and members.

Chapter IV

Electoral Communication: Telematics and Participation

Communication by parties, candidates, and others concerned with election campaigns gives the narrowest definition to the term political. A more difficult matter is understanding how the French practice and communicate politics, so as to understand the ways that telematics has been used.

Three perspectives are salient in understanding the relationship between telematics and the French electoral system. First, the basic framework of French electoral competition must be understood, the particular rules of the game. Second, the behavior of voters must be understood within this framework. At the individual level French politics is characterized by relatively high levels of voter participation, but low levels of partisanship. The latter characteristic seems to be based not on personality characteristics--partisan affiliations where they do exist are solid--but, at least historically, on the weakness of intergenerational transmission of partisanship and the third key characteristic of importance, the enormous instability of the party system. Lasting party attachments have been inhibited by the rapid creation, disappearance, and re-labelling of French parties, which, although the exceptions to this are notable, tend to be organizationally diffuse and highly factionalized.

All of these factors--the electoral rules, voter behavior, and party cogency--are relevant for the adoption of telematics, which follow the fissures in the political system. The two major political groupings are highly factionalized and their constituent elements, whether parties or sub-party groupings, are no more likely to share a telematic service than they are to share a telephone number. Yet, since a great flowering of electorally-oriented telematic services for the 1986 and 1988 campaigns, this application has virtually disappeared. In part this is due to the

political calendar itself and the fact that there have not been presidential or legislative elections since then. However, another crucial factor is the loss of the primary benefit accrued by political actors for their engagement in telematics--the image of modernity that their participation confers. As the number of Minitels in households has increased it has become so commonplace as to disappear. With it, the hope that interactive media would be a tool to enhance political participation has virtually disappeared as well.

To understand the framework of political competition we will first review the basic features of the French political system (electoral rules, partisanship, and turnout), then briefly review the communication of politics, which together form the context into which political telematic services have been introduced. The near totality of these services is then investigated in detail.

I. The French Electoral System

The Fifth Republic's constitution illustrates the legacy of distrust of political parties in France. Although the first French constitution to guarantee their ability to freely organize, they are admonished (article 4) to "respect democracy and national sovereignty." Rather than being seen as aggregators of particular interests into programmatic policy plans--as large families of like-minded individuals who hammer out ideological compromises in order to win power--parties have been seen since Rousseau as sources of division and disharmony, viewed, as Borella (1990, p. 8) says, either with distrust or contempt. Thus one finds the curious phenomenon by which founders of political parties, such as DeGaulle or Giscard, formally disavow their intention to form parties before doing so.

During the Third and Fourth republics parties were largely parliamentary groupings without mass bases. The first significant change to this was the (somewhat

late) formation of the Communist Party in 1920. Yet, until the Fifth Republic the non-Communist French electorate had to deal with an overwhelming array of different parties and labels, which only with DeGaulle's ascension to the presidency in 1958 and his successful introduction of the direct election of the president in 1962 began to take on its relatively recent bimodal form.

Although recognized in the 1958 constitution, thirty years passed before the first law was passed specifying how French parties were to function or be financed. Legislation in 1988 and 1990 brought both state subsidies as well as spending limits, but the provision that all candidates declare their incomes and sources of campaign funding has been largely ignored. In terms of their revenues, all parties take part of the salaries earned by their elected officials and raise some funds from their members. According to Hanley et al (1984, p. 167) most parties also use the device of creating essentially fictitious companies whose services are legally paid for by generous (and obviously self-interested) businesses and individuals. The Communist Party also has highly successful businesses whose profits become party revenues. In addition, there are major sources of funds would be, even if made public, somewhat difficult to assign cash values to. These include the assignment of operatives on the payroll of legislatures or local governments to political activities. Finally, there are the unaccounted funds available to the prime minister, most of which go to political functions.

In understanding the political landscape, French voters are aided by a left-right framework that was born in 1789 with reference to the political role of the king in a future constitution. Political forces continue to form around a left-right axis according to questions on the nature of state power: how far it extends, how it is organized, and how it functions. Yet, it is an ordinal structure which places the parties in reference to one another and not a cardinal one that has fixed programmatic references. It must

also be understood as a linguistic tool for talking about politics that is more salient among elites than among the broader electorate.

In their massive study of parties and voters in France, Converse and Pierce (1986) show that while French voters may be able to locate themselves on the traditional left-right scale they have considerable difficulties expressing what this means (p. 121). Converse and Pierce (p. 14) find partisanship to be "quite underdeveloped" relative to the UK or the US, but conclude that it is an elite level rather than mass level phenomenon, due "not to any mysterious fickleness on the part of individual voters," (p. 66) but to "the kaleidoscopic party system" (p. 785) that inhibits lasting party attachments. They count between 40 and 50 distinct party labels between 1958 and 1967 (p. 55), making keeping track of them a formidable task even for specialists, and virtually impossible for citizens. An analysis of 100 parties in 19 democracies since World War II (Rose and Urwin, 1970) assigns an instability index 2.5 times greater for French parties than for the mean of all the rest of the parties of the other countries, which is also more than 50% greater than the next most unstable democracy among those studied (cited in Converse and Pierce (1986), p. 42).

Not only have parties traditionally been formed, reformed, modified, renamed and relaunched with stunning frequency, but Converse and Pierce find "astonishing differences" in political socialization of the French compared with a sample of Americans (p. 100). Where partisan preferences are openly expressed by families, they are passed on as in other Western nations. They find, however, a marked reticence to generational transmission of partisan preferences. Far more French parents (15%) than American (5%) said they should not ever talk about politics with their children and those who did so gave an appropriate age at which it might begin far older (just about 11 in the case of Americans, while the French said 15.6 years of age). Thus, the cohort that were the subject of their inquiry "failed to receive the

kind of partisan political socialization that is very widespread in some other societies" (p. 108). They found, however, the family's weakness as a agency of political socialization to be eroding somewhat, and it may be particular to the time period (the middle 1960s) that they studied. It is likely, therefore, that with the increasing stability of parties and the diminution of the factors mitigating against generational transmission (notably painful memories of the World War II era) that partisanship will show greater similarities with other Western democracies.

The nature of partisan affiliation, however, still shows important lasting differences. It is not, as is the case in much of the US, built into the electoral apparatus. Voters do not enroll in parties in order to vote in primaries at which candidates are selected, as in the US. Instead, the French two-ballot electoral system, which dates back to 1852, functions as a modified primary system. If a candidate wins more than 50% of the vote he or she wins outright and no second round is held. However, this seldom happens in parliamentary elections and has never happened in a presidential election. Only candidates who have gained 12.5% of the registered electorate (about 18% of the vote) can continue into the second round, at which the ultimate victor is selected.

This system appears to have important consequences for political behavior. First, it provides a relatively risk-free opportunity for protest voting on the first ballot. French voters, it is often said, choose on the first ballot and eliminate on the second. Yet, their first ballot "choice" need not be someone they wish to see win the election, as evidenced by the polling data showing that, by a two-to-one margin, first ballot voters for the extreme right *Front National* presidential candidate Jean-Marie LePen did not wish to see him elected to the post (Frears (1991), p. 120). But while the two-ballot system allows protest voting it also operates against fringe parties. The parties that are close enough to their ideological neighbors to be able to negotiate

second round "standdown" agreements (one party's candidate deferring to a better placed opponent from the same side of the political spectrum) have a far better chance of actually gaining representation. In legislative elections these agreements are generally reached long before the first round balloting. However, in presidential elections the intense politicking for endorsements between ballots and the handling of political pariahs by their ideological neighbors has often proved decisive to determining the final winner.

A second consequence of the structure of this electoral system is that there is no impetus to join a party other than agreement with its goals, no equivalent to the loose affiliation with a party, as in the US, in order to be able to participate in primary elections. Yet, even in comparison with other Western European nations, party membership in France is low, not that one can know with any measure of reliability their true membership figures, which are uniformly exaggerated. They are inflated by anywhere from ten to fifty percent, and are not verifiable by any independent source. However, best estimates of membership reveal not more than 2% of the electorate belonging to a party in France. In comparison with West Germany and Britain, with 4-5% of the electorate enrolled as party members, French parties stand on a relatively narrower mass base (Derbyshire (1990), p. 206).¹

A final characteristic of importance is the relatively high rate of voter participation in France. This stands in marked contrast to the US and the UK, where voting has declined steadily for two decades. As Ashford (1982, p. 30), writes, "in a period when many democracies have seen voter interest and electoral support eroding, the French continue to participate at record levels." Only ten percent of the

¹ In fact, due to the huge number of local governments, France presents the anomaly of having about as many elected officials as it does members of political parties, as discussed in Chapter V.

potential electorate does not bother to register (Hayward (1983), p. 74). Some decline in turnout was seen in the late 1980s, but has been most often explained as voter exhaustion (ten times in fourteen months in 1988 and 1989) than a systemic change. Remarkably, France's record low turnouts (49% for the June 1988 European parliamentary election) are on par with the record high turnouts in the US, which are for presidential elections. Local elections in France, which routinely gather 75% of the electorate, generate nearly double the participation of those of the US or UK (Frears (1990), p. 197).

II. The Communication of Politics

Chapter IV showed how remarkably interpenetrated French media and political institutions have been for more than two centuries. DeGaulle's reign serves as the very archetype of a political regime dependent upon the broadcast media. Upon taking power DeGaulle himself inhibited the association of his name with a political party, and only did so out of the necessity of forming a parliamentary majority. As Berger (1974, p. 91) says, "it is hardly an exaggeration to say that the party existed only at election time." DeGaulle's governing owed far more to the mass media, and especially to the state monopoly that gave him unprecedented mastery over the new medium of television, than to a political party, which DeGaulle and his followers saw as "sordid and petty" (Frears (1990), p. 30) .

The media, however, were of crucial importance. "How can one govern a country," asked his Minister of Culture, the novelist André Malraux, "where the government does not have a television monopoly?" (Hayward (1983), p. 170). DeGaulle's mediated "personal" relationship with voters was strengthened by his successful implementation (over the opposition of virtually every political party except his own) of the popular selection of the president. So vital was DeGaulle's hegemony

over television as a tool of governing that, as an illustration, cartoons of the era show his image remaining on a television set after it has been turned off. The French political apparatus of the time was summarized, not inaccurately, as "DeGaulle plus television."

The legacy of this heritage and the relatively late liberalization that has given media institutions a measure of independence have already been reviewed. But what characteristics of the current media regime influence the adoption of telematics in politics? Two may be said to be important, one having to do with the regulation of the senders of political messages and the other observation concerning their recipients.

First, the inability of parties to purchase broadcast advertising liberates funds that, in all likelihood, would be spent otherwise if this restriction were not present. The parties are assigned broadcasting time according to their relative strength. While the quantity of their publishing is not limited, both content and timing are restricted by the electoral code. Parties and candidates may not issue leaflets or posters "calling into question the integrity or honor of a candidate," and may not make charges just before election day to which the opposition would have no opportunity to respond (Valadou (1992) p. 48). Results are upon occasion invalidated for these reasons (almost exclusively on the local level) and new elections held. Thus, parties and candidates in France not only receive broadcast time free of charge but can be held liable for the content of their publications.

Second, it is vital to know if there is evidence that the influence exercised by media, and especially television, upon political attitudes is different in France than elsewhere. It appears that this is not the case and that the differences in French media institutions (relative to other nations) do not make them more potent in effecting voters. Early studies of television and politics in France were, as in other countries, unable to confirm the widespread assumption that it was able to determine voter

behavior (Rémond and Neuschwander, 1963). However, while confirming that there did not appear to be individual-level differences between the affect of television on voters in France relative studies on its effect on voters in other countries, Michelet (1964) observes that the effect that there is was almost certain to be greater in France due to the very limited supply of broadcast signals. To Missika and Wolton (1983), even if the broadcast media are no more potent in their ability to change attitudes than they are in other nations, the myth of television's omnipotence and its importance as a political resource had an enormous impact upon the growth of French media institutions. Looking at the same issue in more recent years, after French media institutions had become more similar to those of other nations, Bourdon (1987) concludes that "the similarities are greater between the socio-political behavior of citizens than between political and televisual institutions."

We thus draw two conclusions. The limitations placed on access to broadcast media force them into exploring the use of other media for which there are not similar limitations. Yet, they must be conscious that their efforts at propaganda conform with the law. Second, the evidence is that whatever differences there are between French political communication and that which is found in other nations are due more to the supply of media outlets rather than to individual-level cultural differences. The French do not appear to be influenced in fundamentally different ways by the media at their disposal than do citizens of other countries.

In summary, there are a number of elements that are important for understanding how the French are politicized and how their political life is structured. They vote regularly but don't join parties or other political groupings, in part because their participation in politics does not require it. They are confronted by a highly variable party structure, which is only partly rendered meaningful to them by the left-right framework. The two ballot electoral system serves as a limited primary election,

allowing voters to express displeasure in the first ballot and then return to the fold in the second. Parties have important limits on the media on which they can invest resources as well as content restrictions on the claims they can make in an electoral contest. And the broadcast media do not appear to be any more influential in determining voter attitudes than they do in other countries.

These factors influence the approach that candidates and parties have to the telematic medium in a number of ways. First, a party may direct its service either to its membership, who share a commitment to its goals, or to a far larger potential audience drawn from among its sympathizers. The approaches analyzed below reveal both of these telematic strategies. The overwhelming majority of citizens have no ongoing political involvement and engage in no political activity outside of voting. This means that telematics is not the substitution for a means of communication that has otherwise been conducted by another medium. Parties and candidates may have greater resources at their disposal to engage the telematic audience than they would otherwise due to their inability to invest their resources in other media. And parties must be conscious of the legal parameters that control the content of their communications. French voters appear to be as resistant as voters in other nations to mediated attempts at manipulating their political attitudes. What accounts for differences in France seem moreso to be differences in the media available. This is certainly true in the case of telematics, which reaches a potentially massive audience in France relative to its potential audience elsewhere. But how do they use it?

III. Electoral Telematic Services

Besides coverage in the popular press there is only one analytic source that gives a global picture of applications in this area, a DEA dissertation by Pierre-Gildas Perot written for the University of Rennes in 1988. He asks if the new public sphere

created by mass scale interactive media is "a fantasy of social science researchers" or a nascent reality that is "corroborated by the reality of experiences in the field?" (p. 14). Due to the difficulties with cable television development, he writes, it was Minitel "that was invested with all the fantasies of electronic democracy" (p. 82). After noting that all political parties tried to use telematics as early as the 1986 elections, he considers only the services of the Gaullist RPR party and that of the far right *Front National* to be "living, structured, and well-done" (p. 143). While there are debates that "are often polemical, even violent," the audience is not composed of independent citizens seeking to inform themselves but "is rather linked to obsessional behavior" (p. 146). Political debate is

the reign of invective, of simplistic politics and excessive passions
...[that] rarely go beyond the level of psychological releases of tension
(p. 146).

The primary reasons parties engage in this activity is not for the input gathered, he asserts, but for the image it projects.

Outside of political promotion done on the theme 'our party is modern, it is participating in telematics'...one can ask oneself about the real efficacy and the real place that Minitel can take in political communication (p. 148).

He calls the idea of the rational citizen that lies at the heart of democratic theory a fiction that is the source of widespread myth-making. Only the politically-engaged citizens with Minitels use it for politics, and what they do "is not always rational." The users are merely "spectators in political theater [who] imagine themselves to be actors while paying to see the show" (p. 149).

Perot concludes that electoral politics is unable to organize the "individual preoccupations" that are generated by the anonymity of telematic communication. While this might be possible on the local level, "no local collectivity has until now

risked accepting the consequences of such an initiative" (p. 154). He quotes journalist Matthier Villiers (1988), who wrote that telematics produces "a wave of profound noise made up of miniscule and innumerable cries of 'me, me, me!'" But rather than railing about the death of public spirit he notes the emergence of other interests, most of which remain in the private realm, "waiting to be translated into politics" (p. 155).

Table 5

Electoral Telematic Services		
<u>Organization</u>	<u>Service Names (access codes)</u>	<u>Operating 1992?</u>
RSCG Interactive	<i>Démocratie Directe</i> (agir)	N
SOFRES	(controlled access)	N
<u>Libération</u>	<i>Libé</i> (libe, cqfd, stella, turlu)	Y
<i>Priorité à Gauche</i>	<i>Gauche Assistée par Ordinateur</i> (GAO)	N
<i>Allons z'Idées</i>	JLang, Tonton, <i>Génération Mitterand</i>	N
<i>Parti Socialiste</i>	PSInfo, PS, Rocard, GAU	Y/N
<i>Parti Communiste Française</i>	PCFDoc	N
<i>Rassemblement pour la République (RPR)</i>	Direct, Panel, Resp	N
<i>Union pour la Démocratie Française (UDF)</i>	MMD, GCCOM, Barre, Radical	N
<i>Front National</i>	FN, Natio	Y
<i>Etat d'Esprit</i>	Rufenacht	N

The number of electorally-oriented telematic services is sufficiently small that one may review their quasi-totality.² As shown in Table 5, eighteen services from eleven organizations are analyzed herein, starting with three non-partisan services.

A. Non-partisan services

1. The Pioneer of Political Telematics: *Démocratie Directe* (Agir)

Démocratie Directe (DD) was the premiere political telematic service: the first to be created, the pioneer in finding ways of using the medium for political participation, and the source which a number of other attempts owe their origin. Its evolution--from its birth as an exciting new idea in 1985 to its quiet death in 1989--is indicative of the lifecycle experienced by other telematic services with similar ends, most of which have ended similarly.

It was created in April 1985 by Bernard Tani and Gérard Prenant with the goal of promoting political discussion and participation on a non-partisan basis. (Its service code on 3615 was Agir, which means to act.) It offered a brief telematic journal (news and features) as well as electronic mail to party officials. The service solicited questions for the political parties, printed them out, and delivered them to party officers to be answered. It often took the parties two to three weeks to respond to these questions, when they did take the time to respond. To ensure its image as non-partisan and independent, it established a *Comité de Surveillance* composed of prominent political scientists.

Then in December of 1985 Pierre Mehaignerie, leader of the *Centre des Démocrates Sociaux* party and Vice President of the UDF, agreed to sit for a live teleconference via Minitel. For three consecutive afternoons individuals would be

² There has also been a handful of telematic services built for local and regional political party organizations that are not included here.

able to question him. DD set up several telephone lines into his office and publicized the event.

"We had a press conference beforehand, at which Mehaignerie was very comfortable," said Prenant. "It was easy for him to handle the journalists, but he was afraid of answering questions from citizens directly. We were afraid also, because we didn't know what would happen" (personal interviews, June 1987, January 1988, July 1988 and April 1992). Mehaignerie took the time to shake hands with all twenty people in the room as an attempt at avoidance, but then found the first session surprisingly pleasant. In three days he answered more than two hundred questions.

In January 1986 PTT Minister Louis Mexandeau agreed to a live teleconference. He brought a small army of officials to whom he could turn for answers dealing with the ministry's various responsibilities. Mexandeau answered more than 400 questions, and the session was widely covered in the French press. According to Prenant, "after that people came to us and asked to be next. They realized that this was good publicity for them." In the months before the legislative elections another half dozen political leaders were presented to the telematic audience via teleconferences, some live and others through intermediaries. In 1986 the service also offered short news items, a history of French political thought (accessible either chronologically or by keywords), and a very large database (more than 1000 screens) on French political institutions (the constitution, parliament, etc.)

"In the beginning," noted Prenant, "half the questions were gags or hate mail. With time the quality increased, becoming more and more precise, serious." The politicians also adjusted to communicating via this medium, according to Prenant: "[t]hey are learning to communicate by Minitel: short, direct, humorous answers."

A number of other political Minitel services can trace their lineage to *Démocratie Directe*. For example, just before the 1986 elections DD hosted RPR

party secretary Jacques Toubon, who was enthralled with the possibilities of telematics and formed his own party-based service. When the election resulted in the loss of the Socialist majority and Jack Lang lost his position as Culture Minister, he formed a political organization called *Allons z'Idées* that had a Minitel service as its centerpiece. (For both, see below.) A number of mayors had their first direct experience with telematics through the activities of DD.

Following the 1986 elections the service continued to produce teleconferences built around important public issues including the Chernobyl nuclear disaster, the privatization of television network TF-1, and the issue of test-tube babies. In conjunction with television network *Antenne 2*, DD hosted a teleconference on AIDS that followed a television presentation. The doctors who had appeared on the show received 3000 questions via Minitel in three days. The AIDS show generated 30,000 connections in all, thus for every one who asked a question there were ten callers who just read the questions and answers. In 1986 the service was generating about 15K calls/month for an average of 1,300 connect hours.

Also in 1986 Tani and Prenant approached French advertising giant RSCG to propose the creation of interactive services for the company's clients. RSCG purchased half of Tani and Prenant's company, which became known as RSCG Interactif. They continued to produce *Démocratie Direct*, but now also built services for Citroën, EDF (the French power monopoly), and other companies.

Somewhat fewer teleconferences were conducted in 1987, but the service was undergoing considerable development, including work on how to use Minitel to vote. Said Prenant at the time:

We want to work in the direction of allowing people to make decisions directly through the Minitel. It is the dream of the Agora of ancient Greece that all citizens be able to speak directly with Athens. We think electronic networks are a way of realizing that old dream. We

think that with Minitel we can organize the decision-making process in a new way.

By now, however, the business side of the operation was becoming more important than *Démocratie Directe*, even though it was the political operation that attracted most of the attention.

The relationship between *Antenne 2* and *Démocratie Directe* was formalized for the 1988 election cycle. The television network handled all of the promotion of the service, which introduced a few innovations including new teleconferencing software that allowed it to handle as many as 500 simultaneous calls and up to 1000 questions in three hours and an index to those questions and answers for later retrieval. It also introduced a section for each of the political parties that was under their own control. It included a presentation of the party in a few screens, the latest news of the party, and a question and answer section that generated about a dozen questions a week. The parties, however, generally preferred to invest their energies in their own Minitel services.

In 1988 the service also introduced a section for the presidential election which allowed callers to leave questions for the individual candidates. These questions were then printed out and delivered to the campaign organizations, as had been done previously. The teleconferences were also changed. Instead of giving a politician all three days to answer questions, the first two days were reserved for the guest of the week and the last day was set aside for someone to act as his or her opposition.

The service continued to avoid polling, however. "Unscientific polls are misleading and dangerous," asserts Prenant. "We did a poll with Le Pen last year, for example, and eighty percent of the respondents agreed with him. Afterwards we found that his party had turned people out to answer." The attraction of participation

via Minitel, he believes, is that participation is not reduced to standardized, coded responses. "I think people are tired of polling. They want to give a real opinion."

The non-partisan status of the service was very closely guarded. Any messages not containing incitements to violent acts were validated (permitted to be posted), and callers or invited guests could appeal to the oversight committee if they felt they had been treated unfairly.

Seven teleconferences were held between March and June 1988 including one with a presidential candidate (Ecologist André Waechter). As Tables 6 and 7 show, the peak of the service's popularity, however, was not in the pre-election period but

Table 6

**Usage of *Démocratie Directe* During the 1988 Presidential Elections
(April 24 and May 8)**

	April 24	25	26	27	May 8	9	10	11
hours of connection	40	61	24	20	305	580	40	25
number of calls	810	732	242	230	4822	7800	560	275

Table 7

**Usage of *Démocratie Directe* During the 1988 Legislative Elections
(June 5 and June 12)**

	June 3	4	5	6	7	8	9	10	11	12	13	14	15
hours of connection	35	30	520	1303	82	60	45	46	35	512	1110	60	30
number of calls	687	371	9482	15365	861	600	555	477	400	11324	19813	900	400

source: *Démocratie Directe*

in the days immediately following each election. This was particularly true of the legislative elections because results by city or département were often not printed in the papers. DD profited in 1988 from an exclusive relationship with the Interior Ministry by which it made election results available.

Following the 1988 election cycle, DD began to focus more upon local politics and began conducting teleconferences for mayors. In part this was due to the exhaustion of the primary benefit the service gained from live teleconferences with national political figures--free publicity. All promotion of the service was done by press release. Says Prenant:

We never spent a *centime* on advertising but we had lots of success with the press. They all wrote about us. But we did operations frequently and once they had written about us once they weren't going to do so again for a long time.

But making the local operations profitable enough to meet the salaries of six full time staff members proved to be difficult. Each locality paid 10 KF for a live teleconference with its mayor. A successful operation over three days (several hours each day) was 300 messages and at best 1000 connect hours, which generated 15 KF for DD. Local teleconferences were conducted weekly for more than a year from mid-1988 to late 1989, but Prenant says the revenues didn't meet the service's costs. The financial problems of *Antenne 2* led it to sever its relationship with DD in 1989, which was also an important source of its revenues. The staff was dismissed in the fall of 1989.

"The real lesson is economic," says Prenant. "There is just no market for this kind of service...Democracy, whether direct or not, doesn't function well as a market operation. This wasn't one." In addition, as the parties built their own telematic services they were less willing to cooperate with DD. While another institution, such as a media organization or the national government, may be able to succeed at making

interactive media a tool for political participation, Prenant is more prone to believe that the failure of the service shows

that democracy can only be representative. Political decision-making is a genuine profession that requires qualified people. A real system of direct democracy would be hell, and in any case not a real democracy.

The business that has grown out of DD sells multi-media expertise, which Prenant says is a matter of looking at each medium's unique capabilities rather than trying to perform established functions with them. In the context of democracy, "you can't think of doing the same things with telematics that you'd do without it, but have to re-think what democracy is."

Among the other observations to be drawn from the experience of *Démocratie Directe* is the relative ease with which politicians were able to dismiss questions they judged hostile or mean-spirited. With television, the discomfort caused by a difficult question is registered at least visually, at the limit becoming more important than the words contained in an answer. Follow-up questions have the same effect. Neither were the case with DD's teleconferences, for which politicians learned quickly that the avoidance of jarring questions did not produce unpleasant consequences. That caller simply got no answer, without any of the other callers being aware of it. And the answers that were given were extremely short, often being what would have been considered a non-answer if given in spoken form.

In conclusion, *Démocratie Directe* was the most extensive attempt to produce a telematic service designed to enhance political participation. It was not able to find an audience sufficiently broad and constant enough to function as a profit-making operation, although during electoral periods it did find a role to fill. Even when it was operating best, however, it was at best a very limited tool for political interaction, one that made prolonged and sustained political conflict both difficult and rare.

2. Real Time Audience Response: SOFRES and *L'Heure de Vérité*

SOFRES is one of the premiere polling agencies in France, and is at the forefront in applying telematics to opinion sampling. SOFRES uses Minitel as a response mechanism for polls, a capability it used from September 1985 to May 1991 to conduct an instant public opinion reading for France's leading political television program, *L'Heure de Vérité*.

To establish this panel, SOFRES recruits a basic sample of 1200 households by the same methods used to select a sample that would be queried in person or via the telephone. The criteria used for this selection are gender, age, the occupation of the head of the household, and family size.

After an initial telephone contact, an interviewer visits each household. Usually it must be equipped with a Minitel, which is provided without charge by SOFRES. The agency "strives to render this tool commonplace," and "never offers it as a symbol of modernism or as a medium for blind dates." Incentives such as lotteries and gifts are offered, but "are given in such a way as not to change their behavior" (Dorey (1987) p. 8). Each panelist may stop participating whenever he or she wishes. If panel members' participation proves satisfactory they are kept in the panel for a year or more.

While used for other clients who wish rapid results, its best known application was for *L'Heure de Vérité*, called by the journalist who stars in it the "temple of temples" of a political system oriented upon mediated interaction (deVirieu (1990), p. 55). The program enjoys considerable influence in political circles. Former Defense Minister Jean-Pierre Chevenement has called it "more important than a parliamentary vote of confidence" (*Institut International de Géopolitique* (1987), p. 102).

For *L'Heure de Vérité* a sub-sample of this telematic panel was selected "with criteria related to interest for politics and political inclinations" (Dorey, 1988). A scientifically valid sample of 500 respondents were asked questions via Minitel while they watched the program, which broadcasts the results within minutes. A different sub-sample of 500 was selected for each broadcast of the bi-monthly program. Each person was telephoned the day of the program to remind them to have their Minitels on that evening and their TVs tuned to *Antenne 2*.

They received the first two or three question even before the show came on the air at 8:30. The initial questions were generally related to their impressions of the political personality about to be interviewed or the subjects they hoped to see discussed that evening.

On March 23, 1988 the guest was André Lajoinie, presidential candidate of the *Parti Communiste Française (PCF)*. A total of 474 individuals were connected to the SOFRES computer via their Minitels for the first question, of whom 468 responded (personal observation, March 1988). Complete responses, including the distribution of the responses by gender and occupation, were available a few minutes after each question was posed. Did the panel believe that European unification in 1992 would be a good or bad thing for France? 60% felt that it would be a good thing. Did they think the French Communist Party defended the rights of man everywhere in the world, or only in certain countries? 81% said only in certain countries while only 8% said everywhere. Among workers, 63% felt the PCF defended the rights of man only in certain countries while 16% said everywhere and 21% did not answer.

The sample showed only a very slight difference in its opinion of Lajoinie before the program than it did more than two hours later. 24% of the sample had a good or very good opinion of him before the show, 29% afterwards. Among workers, 31% had a good or very good opinion of him before the show, which rose

to 42% afterwards. 57% of the entire sample had a bad or very bad opinion of him beforehand, 61% afterwards. The percent without an opinion on Lajoinie dropped from 17% before the show began to 8% afterwards. Among the workers in the sample 53% had a bad or very bad opinion of him beforehand, which fell to 45% at the end of the show.

Similarly, 18% of the sample said they were absolutely or somewhat in agreement with his ideas before the show, rising to 23% afterwards. 71% said they were rather not in agreement with him or not at all in agreement with his ideas before the show, while 70% held that opinion at the end. The difference is the larger number of people responding at the end than at the beginning. While 10% failed to respond to this question at the beginning, only 4% said they were without an opinion at the end.

In all, eleven questions were asked in slightly less than two hours. There were still 484 people connected via Minitel at the end of the show, of whom 474 responded to the final question. Several times during the show a reporter standing in a small studio at SOFRES reported the results to the latest question, which were then graphically displayed on the screen while he described them.

The clearest advantage of using Minitel as a response mechanism was speed. It is "the only way to collect 500 individual [responses] in three minutes" (Dorey (1987), p. 2). The agency has about 200 other clients that use the telematic sample for their polls. They are able to get their responses in 48 hours, as opposed to a week for telephone surveys and four weeks for in-person interviews (Villiers (1988) p. 44).

Besides speed SOFRES reported no differences with poll results gathered by this new method. According to SOFRES Director Pierre Weill,

it is not clear what difference there is using Minitel. It seems to be better than the telephone, more sincere in fact because with the phone

people give the answer they think the interviewer expects (personal interview, June 1987).

Weill was cautious, however, in assessing the value of this activity. "Yes," he admits,

it is mostly entertainment. The only value is to measure the guest's efficiency as a propagandist. In two days the results are meaningless. We are measuring something very shallow here. There is no deep effect.

The instant poll was discontinued in 1991 because the program began to be done on a weekly basis and was rescheduled for noon on Sunday. The Minitel panel continues to exist however, although it is no longer used for real time response. Even though recruitment of Minitel panelists was considerably more expensive per respondent, SOFRES has found it profitable, reporting in 1988 that its Minitel panel generated 10% of its gross receipts.

The acceleration of audience response to a matter of minutes makes more explicit polling's political function in the media--to reinforce the legitimacy of the journalist posing questions by making him or her more clearly the audience's representative. After the journalist's question and the guest's response, the audience had their opportunity to, in effect, express their agreement or non-agreement with the response, allowing the journalist to pose a related question.

While this touches upon conversational interactivity it is far from reaching the highest level (activational), meaning it is impossible to find anything that was changed by the interaction. It is also a rather impoverished "conversation," in which two of the three participants are individuals and have the ability to speak, while the third interlocutor is a undifferentiated group of 500 individuals who may only respond to coded responses. The mass response mechanism is not linked to either public policy-making or even to political position-taking. It is, as Weill says, entertainment.

3. The Campaign as Seen on TV, in Cafés, and on Minitel: *Libé*

Most citizens never meet the candidate for public office for whom they vote, but gather their political information from mass media such as television, radio, and the press. While virtually every French media outlet is involved in telematics, the service of the daily newspaper *Libération* is the only one that has tried to involve itself in French political life. It is also among the telematic operations that play a significant role in its parent company's financial well-being. Examining *Libé's* telematic operation makes it clear how rarely it serves as a medium for political interaction, even though during brief periods of intense political activity it can take on important functions.

Less than twenty years old, *Libération* aims at a younger audience and is the premiere left-leaning daily Parisian newspaper. In 1989 it ranked behind *Le Monde*, *Le Parisien*, *Le Figaro*, and *L'Equipe*, but still among the Paris dailies that surpassed a million readers for an average issue (Charon (1991a), p. 391). *Libé* is heavily involved in telematics; less so than *Le Parisien* (discussed above in chapter III) but far more so than *Le Monde*, whose service was begun much later with a far more limited scope. *Libé* was an early participant in telematics and established a position among the market leaders. However, it was unable to sustain its place against newer entrants because of its ambivalence about evolving in directions that would carry it too far from traditional journalist activities. The creation of the kiosk billing system in 1985 (the 3615 access number, for which France Telecom bills users and remits 60% of their payment to service providers) made real-time oriented applications such as messageries and games the profit centers of a telematic service. As Jean-Marie Charon writes (in Jouët, Flichy, and Beaud (1991) p. 156-7), "the newspapers most determined to succeed in their diversification thus moved in this direction." While

profitable, this kind of content alienated professional journalists, already skeptical of the telematic medium. As Charon observes,

The videotex service of the newspapers began to be seen as a necessary evil, a money machine, that one would do well to avoid and whose culture and social image led them to wish for a clear separation between the telematic service and the newspaper...

The experience of *Libération* "represents this attitude rather well since the journalists mistrust Teletel, but on the other hand the substantial profits allowed the paper to cover its heavy losses in radio in 1985." This ambivalence acted as an impediment to the development of *Libé*'s telematic operation:

Those who managed the newspapers adopted an attitude toward the new medium that revealed the low regard they had for it. They took the substantial profits this activity generated and invested them elsewhere. This rapidly placed them in a weakened position relative to competitors who believed in the new medium. After 1986-1987 newspapers such as *Libération* suffered from being held back in this way.

As a result, new companies that were focused upon telematics became the industry's new leaders.

Telematics, however, continues to play an important role in *Libé*'s financial health, the 10 MF in annual receipts that it generated in 1987 representing a source of income greater than that earned from subscriptions and twice that generated by classified advertising (Albert (1990), p. 76). From 1988 to 1989, the revenues from *Libé*'s telematic service increased by a third, reaching 16 MF (*Libération* 12 juillet 1990, p. 11).

Although a section entitled *politique magazine* is always well placed on *Libé*'s main menu (usually at the top) it is far from the most frequently consulted part of the service, which is heavily entertainment-oriented. Coming events and television schedules are listed, and the service includes reviews of performances and recordings in addition to news, sports, and weather. The sale of tickets for events (20K sold in

December 1986, for example, for a Pink Floyd concert at Versailles) is an important element of the service. *Libé* also sponsors live teleconferences linked with events in the news, such as one with a former French Olympic runner following Ben Johnson's loss of his medals for drug use at the 1988 Olympics, and thematic games, like one built around the Paris-Dakar road race.

Libé has an audience that is an order of magnitude larger than any of the other services that are a part of this study, the only one of the major services herein analyzed and, because of this, is far more typical of telematic services than any other. In 1991 it generated an average of 41,083 monthly connect hours and approximately 400K monthly calls. It differs from the others as well by its relationship with the newspaper, which serves as its major source of publicity. It currently receives a total of eight pages a month of advertising in *Libération*, which generally takes the form of two small display ads a day of varying size.³

So although it is a large service, an analysis of its usage makes it clear that anything that could remotely be considered political is at best, during normal times, very marginal. The availability of statistics on the interior usage of *Libé* reveals the popularity of its component parts. It is organized into sub-systems that are individually accessible (have their own Minitel service codes) as well as accessible from the main menu. Thus, as shown in Table 8, in October 1987 the entire telematic operation for *Libé* included not only the access code LIBE but also CQFD, STELLA, TURLU, EDUC, and DROID. So not only LIBE, but also CQFD (games), STELLA (astrology), and TURLU (a messagerie) were among the top 70 access codes in the

³ During the period in which the data reported below was gathered, its editor reported that the telematic service received the equivalent of twelve pages a month worth an estimated 180 KF.

monthly hit parade that was published in Telematique Magazine⁴. Together they comprise the total usage of *Libé*'s telematic operation.

Table 8

Popularity of *Libé*'s Access Codes, October 1987

<u>code</u>	<u>rank</u>	<u>hours</u>	<u>connections</u>
LIBE	33	9,215	102,601
CQFD	37	8,213	41,420
STELLA	42	7,092	71,565
TURLU	64	3,437	29,785
	TOTALS	27,957	245,371

These codes account for 94% of the service's calls and 95% of its hours of connection, so the remaining two codes unaccounted for are very minor. Totalling the hours (18,742) and the connections (142,770) of CQFD, STELLA, and TURLU reveals that games, astrology, and a messagerie account for 63.5% of *Libé*'s hours of consultation and 54.6% of its calls in October 1987. The code LIBE accounted for only 31.2% of the service's hours and 39.3% of its calls.

A breakdown of the June 1987 figures also reveals that a majority of calls and hours of connection are for parts of the service quite remote from anything political. Due in part to the success of a service that gave the questions and answers of the French baccalaureat the code LIBE accounted for only 18% of the service's calls and hours of consultation. In January 1988 the code LIBE's 107K calls were 39% of the total for the entire telematic service (274K calls total) and 31.6% of its connect hours (9,867 out of 31,212). The following June, during a time of intense political activity

⁴ The hit parade has since been discontinued. It was the only source of monthly statistics on individual services, by which *Libé* can be compared to others. Although this analysis is based on 1987 figures the essential components comprising the service are unchanged since then.

surrounding the presidential and legislative elections, the code LIBE accounted for 20% of *Libé*'s connect hours and 25.9% of its calls.

This means of analysis of the distribution of *Libé*'s usage is inexact for a number of reasons. The code LIBE included many other things besides the *politique magazine* and news, so far from all of it was of political relevance. And other parts of the services were political such as a "game of the government" that was political satire. At any given moment some number of people talking on the messagerie may be engaged in political conversation, although it is not likely to be very significant. Still, it is incontrovertible that during normal times political communication comprises only a very small part of the service's usage--at the very most one-tenth and probably less than a twentieth.

Libé's telematic audience reveals itself in part through telematic polls taken periodically. Four thousand individuals were invited to respond to a Minitel questionnaire in February and March of 1986 and 1987. Of these, 2,121 responded in 1987 and an unknown number responded in 1986. Half of them reported using *Libé* either every day or two or three times a week (49.84% in 1986, 50.28% in 1987). As many respondents reported using Minitel from their office as from their homes, and just about as many reported their motivation as "to have fresh information" as "because I like to play." A substantial percentage (14.88% in 1986, 11.68% in 1987) reported that they never read the print edition of Libération. Three-quarters of the audience was male in 1986, and two-thirds was male in 1987.⁵ So although politics is a small part of *Libé*'s telematic operation, *Libé*'s telematic service has taken on a minor function in French politics, particularly on the left. During the presidential campaign (from March to May 1988) *Libé* held teleconference each

⁵ *Libé* no longer conducts internal polls or engages in audience studies (personal interview, Pierre Moulin-Roussel, editor, May 1992).

Thursday that generated several hundred questions each time. Interviewees included party secretaries Jacques Toubon (RPR) and Lionel Jospin (PS), presidential candidates Pierre Juquin (independent communist candidate) and Antoine Waechter (ecologist party), and a number of current and former cabinet ministers. These interviews were promoted in the print edition and in radio trades worth approximately 100 KF.

Most importantly, extracts of the online discussion were published in the print edition, which ran a column on Tuesdays on the way the campaign was unfolding on Minitel. The column was one of a series covering the campaign in various fora, including how it appeared on television and what people were saying about it in cafés. This column often drew upon questions and answers exchanged via *Libé's* own telematic service, but was not exclusively reliant upon that service for its observations.

During the campaign *Libé* also engaged in political polling online. These were non-representative polls (drawn from an entirely self-selected sample) but the results are analyzed by age and sex. Users who called again using the same name and password were queried to see if they had changed their preferences and if so, why. These polls were conducted twice monthly and the results announced along with a scientifically valid poll conducted for Libération.

During the campaign the service also included the answers to questions put to each of the political parties, a record of public polls on the campaign, and a number of politically-related amusements such as the biorhythms of the candidates.

The editor of *Libé's* telematic edition at the time, Michel Cerdan, reported sharp increases of usage at times during the campaign. According to Cerdan, the 3000 to 4000 calls daily calls the service was getting jumped by 25-30% the day after Mitterrand announced his candidacy (personal interview, June 1988). Other events

such as the release of hostages in New Caledonia immediately before the presidential election also generated a large number of calls. The most intensive usage of *Libé* as a medium for political communication, however, and the usage with the greatest political impact, was not during the campaign but during the student strike of 1986, as discussed below in Chapter VI.

In general, usage during the campaign was much as it was during other parts of the year. The most important impact on the conduct of the campaign, according to Cerdan, were the teleconferences. "For some candidates, this was their most important interview for the entire campaign." For most, however, it was another press conference or public meeting, no more or less important than the other means by which potential voters were engaged. No interaction between voters was organized by *Libé*, although some may have resulted by the invitation of people to be online at the same time to pose questions of a political figure. Neither was there structured asynchronous interaction built around political issues.

Three observations present themselves from the example of *Libé*. First, the role played by an electronic newspaper in politics is a shadow of the influence exercised by its print edition. In part this is because a telematic service has no physical presence. It produces no headlines that are seen by visitors to a newsstand, whether or not they purchase the newspaper. Second, since telematics forces the user to actively select the content of interest to him or her (at a level of engagement greater than the selection of an article to read by turning and scanning a printed page) one may measure how much of this attention goes to "political" content. Relative to the use of Minitel for games and the messageries, politics is minor, even inconsequential. Third, the importance the medium does have for political communication is highly episodic and follows, not surprisingly, the rise and fall of interest in public affairs.

When people have reason to be concerned with politics, Minitel is a place where a small amount of that interaction takes place.

B. The Left

1. Attempting to Organize by Minitel: GAO (*Gauche Assistée par Ordinateur*)

The most extensive and professional attempt to use Minitel as a tool for political organizing was launched 2 December 1985 by a group calling itself *Priorité à Gauche* (PAG). An independent group of leftists, PAG was formed nine months earlier to promote the fortunes of the French left in the legislative elections scheduled for the following March. The creators of the telematic service included a number of people who either already were or would soon become recognized for other accomplishments in the telematic industry, including Joseph Gicquel, the creator Libération's telematic service.

The objectives were "to show that the left is modern and able to utilize all the possibilities offered by telematics; utilize telematics as a rapid means for circulating information, ideas, and messages for the 1986 campaign, and offer to all--left, right, or otherwise--attractive services, games, tests, and arguments of the left" (press release, *Gauche Assistée par Ordinateur*, no date). Gérard Prenant of *Démocratie Directe* has called it more simply "an attempt to seduce young people to vote for the left" (personal interview, June 1988). Three other political clubs created the service along with PAG--*La Mémoire courte*, *les Gais pour les Libertés*, and *Espaces 89*.

Given the name *Gauche assistée par Ordinateur* (Computer-Assisted Left, accessible by the code GAO), the service's approximately 500 screens were clustered into four major sections (*Priorité à Gauche Rapport de Campagne, Mars 85/Mars 86*). The first, called VIP, was built around a weekly teleconference with a leading figure of the left. Although former Socialist Prime Minister Pierre Mauroy inaugurated the service officially on 8 January 1986 by answering 300 questions in a live telecon-

ference, generally these sessions were not done in real time. Instead, a user was promised an answer from the guest politician within 48 hours of posting a message. Other participants included Culture Minister Jack Lang, Women's Rights Minister Yvette Roudy, and Defense Minister Charles Hernu. Answers were either sent to a user's individual mailbox or, if they were of general interest, posted for all to read.

A section entitled *Palabres* included the service's live messagerie, and a number of "thèmes," ie. articles designed to provoke a response, such as "What will we do after winning the election?" and "Are you happy with the head of your local list (of party candidates)?" Contributions to a part of this section called "200,000 reasons to lean to the left" were judged by a prestigious jury that awarded a trip to Greece to the best entry. This section of the service also had a mock mailbox section in which one could take on the role of any minister and send memos to other cabinet ministers, and a real mail system for messages to any of the organizations sponsoring the service or their individual members.

The third major section of the system was called *Decrisp* (meaning, roughly, "chill out"), a humorous survey with which one could determine if he or she was "tech" or "touch," "à la PAG," (ie. trendy), and play other politically-oriented games.

The fourth major section of the service was called *Niouzes*. It contained an informational kit (the "minimum basic data set") for the March 1986 elections. This consisted of a "combination press review and confidential letter" called "*Nouvelles à Gauche*"; a calendar for meetings, parties, and demonstrations called "*Bouge à Gauche*"; a graphic illustration of each of the important public polls taken during the campaign ("*Sondages à Gauche*"); a dictionary of words that should be in the vocabulary of a good leftist ("*Dico à Gauche*"); and "*Gâteries à Gauche*," a catalog of products containing left-oriented slogans and images. Finally, one could also reach

sections devoted exclusively to the internal workings of each of the member organizations via the service.

Immediately after the election, PAG was disbanded and GAO dismantled. To its creators, GAO was both a success and a disappointment. It was heralded by Videotex Magazine as "certainly the most professional and the most successful of existing political services (Vasseur (1986) p. 23). Yet, despite being on 3615 the service was not profitable and indeed ran at a loss. Two full-time people were required to run it, one specializing in technical support and the other occupied primarily by the weekly teleconferences and other marketing responsibilities. The service also required the contributions of a number of graphic artists.

Usage was less than anticipated. Half of the kiosk revenues went directly to the operator of the host computer. Because of this, the coordinators of the service needed 5,000 hours a month of connect time to break even, while they actually achieved only about 1,250 hours each month. By comparison, during that time period the leading services such as *Libé* or *Le Parisien* hosted about 5,000 hours each day. Even the twentieth most popular service on Telematique Magazine's hit parade generated about 500 hours each day.

"It was an organizational tool and a promotional device, but not a money-generator" says Jacques Rosselin, one of its creators (personal interview, January 1988). "It is one of the tools that can solve internal communications problems," he continued, "but it is not the organizational solution. It can resolve certain kinds of problems, but not all of them." To Rosselin, the traditional anarchy of the left was a major obstacle to telematics as an organizing tool. "The more an organization is structured," he explained, "the easier it is to build a telematic service. RPR has a clear organizational communications structure, making it easy to build a telematic

service for it. The PS, on the other hand, is just hopeless. It is a big mass of people."

Another one of the service's creators, Jacques Marchandise, gives it a similar evaluation. "Not enough people called and we had trouble managing it, especially in light of the more traditional political work we wanted to do. It will be easier in the future, but many people in the parties argue against putting money into Minitel services now because it is not yet widely enough distributed to be an effective medium" (personal interview, June 1987).

If it did have a beneficial impact on the political fortunes of the politicians using it was because, as Rosselin says, it "made them look modern and trendy." Although the object had been for the system to become the nervous system of the left-oriented political clubs and organizations it fell well short of that goal. Nor can it be said that it led to further attempts to use Minitel as an organizing tool as extensive as GAO.

2. Pure Expression: JLang and Tonton/Génération Mitterrand

When the Socialists lost the 1986 legislative election, Culture Minister Jack Lang was out of a job. Among the most visible and most popular members of Mitterrand's Socialist government, he created a political organization called *Allons z'Idées* (meaning roughly "come on ideas" or "let's go ideas") dedicated to the promotion of his political fortunes.

The organization claimed 20,000 members although it didn't hold meetings or even publish a newsletter. It did, however, maintain a Minitel service accessible by the code JLANG. The service offered short editorial comments by Lang, an electronic mail system that people could use to question Lang or other users of the service, games, classified advertisements, and a section in which one could post open messages to anyone. The service also had a messagerie that Lang occasionally

visited, sometimes under his own name and other times anonymously: "It is fun to change names, to speak to the same person under different identities. I still like to play hide and seek," he admitted (Thibault (1987) p. 28). Two unusual elements of the service were a novel written a screen at a time by users of the service and a section entitled "If you were president" that solicited comments from individuals.

In March 1988, the creators of Lang's Minitel service began a service (with many of the same components) to promote Mitterrand's still-unannounced presidential candidacy. (The creators of GAO officially made a similar proposal to Socialist Party officials but were refused.) It was accessible either by the code *Tonton* (meaning uncle, which is Mitterrand's nickname) or later by the code *Génération Mitterrand*, which was the slogan of the presidential campaign.

Before the campaign began, callers were invited to add their names to a petition urging Mitterrand to be a candidate. About 15,000 names were gathered this way. After the announcement, callers were urged to post their declarations of support for Mitterrand on a "wall" (a blank screen) and to read the comments of others. Approximately one-third of the messages were opposed to Mitterrand, so system maintenance consisted mostly of reviewing the messages and throwing out the ones that were unwanted. One could also order a small badge with the slogan *Génération Mitterrand* that would be sent in the mail, or play various games. Generally there was not a live messagerie, although one was available on select occasions.

During its short life (from 1 March to 15 May) the service received 60,972 calls for 5,929 connect hours, or a monthly (30 day) average of 24K calls for 2,340 hours. Usage was greatest at the beginning, declining as election day approached. Those responsible for the service report the vast majority of calls (80%) came from outside of the Paris region, although this observation is without statistical support.

The service was purely a means of expression, and only loosely associated with Mitterrand's campaign. "We aren't associated with the Socialist Party," co-founder Philip de la Croix reported with pride (personal interview, March 1988). Not only was there no editorial relationship, even the income generated by the service went to an unrelated charity rather than to the party. The service was not used as a tool for organization or mass mobilization, not even containing an announcement of a time and place for public demonstrations following Mitterrand's announcement of candidacy. Rather, its creators saw it as a means of public expression. "This isn't just a political campaign," asserted de la Croix,

it is a movement. There are no decisions to be made. There is no goal. This is a gesture of happiness, a free surface for personal expression. The politicians are in charge of winning the election. Our job is to allow people to express themselves.

Callers could read previous messages and leave their own, but no attempt was made to engage them in the campaign, nor were the comments they left thematically organized. The logic behind this service was as pure as its single-minded purposefulness: it existed to allow people with access to Minitels to express their feelings of partisanship during a moment of intense political activity, then, like a campaign, it went out of business. Although not a statistically justifiable comparison (there were more than twice as many Minitels in France in 1988 than in 1986) it is still enlightening to note that *Tonton* got twice as much usage as did GAO two years previously. The creators of *Tonton* had an entirely different approach: not to try to involve the caller in political activities but simply to allow him or her to get something off his or her chest, an opportunity more than 60K French citizens took.

3. The Socialist Party and its *Courants*: PSInfo, PS, Rocard, and GAU

After more than twenty years out of power, the French Socialist Party (PS) won control of the national government in 1981 with François Mitterrand's election

to the presidency. Despite periods in which Mitterrand has been forced to take on a conservative prime minister, the Socialists have controlled the presidency since then. The party's legendary factionalism is not merely endemic but genetic--not just tolerated as a historic by-product of the party's birth but literally written into the party's organization and operation. The *courants* (or, pejoratively, the *tendances*) are virtual "parties within a party" (Hanley et al (1984), p. 177) with their own publications, resources, offices, and officers. New party members are specifically asked which *courant* they wish to join, even though party rules explicitly prohibit their existence. Its telematic involvement reflects this organization.

In terms of its current membership, the PS is smaller than either its German or British counterparts. It has claimed about 200,000 members since 1978. Due to fear of bureaucracy, hostility to the democratic centralism of the French Communist Party, commitment to democratic processes and general contentiousness, "it is a permanent characteristic of democratic socialism in France to be badly organized," says Borella (1990, p. 186). According to Wright (1984, p. 44), the party has never been homogenous or disciplined, and its construction from out of other organizations has bequeathed it a mixed legacy:

The price for uniting the various disparate groups in 1971 had been the creation of a very representative and discussive system of internal party democracy. This system encouraged argumentative factionalism, and at times the party seemed not only divided but chaotic, as rival factors indulged in semantic and quasi-theological debate. Yet, the system of internal democracy had its advantages: it enabled the various factions to live together; it distinguished the party from the monolithic and undemocratic Communist Party; it blurred the identity and policies of the party.

In particular, the PS owed its victory in 1981 to non-organizational factors, such as the continued marginalization of the PCF, the unpopularity of the incumbent, Valerie

Giscard d'Estaing, and the demographic changes France had undergone since the war and its capture of this growing secular, urban, and white collar constituency.

The *courants* identify themselves with certain ideas and social categories, and most importantly with leaders that are potential presidential candidates. Borella (1990, p. 169) calls the most ardently leftist faction, led by Former Defense Minister Jean-Pierre Chevènement, "the best organized." In ideological terms, it favors further nationalization of industry and distrusts European-wide political structures. It grew out of the *Centre d'Etude de Recherche et d'Education Socialistes* (CERES), established in 1966, and is now known as the Socialism and Republic *tendance*. Michel Rocard's faction, coming from his element of the *Parti Socialiste Unifié* that joined the PS in 1974 (what was left of the party disbanded later), is loosely organized and highly critical of state socialism, favoring market mechanisms and the decentralization of power. The *courant* organized around Pierre Mauroy (Mitterrand's first prime minister) and Lionel Jospin (former party secretary) emphasizes the construction of cooperatives and private associations. Laurent Fabius has more or less inherited Mitterrand's mainstream faction. The party has foreshadowed the difficulties it will have in choosing a candidate to succeed Mitterrand by failing to reach agreement, in Rennes in March 1990, on even a basic *text d'orientation*. The Mauroy-Jospin and Fabius factions each held about 30% of the party vote, with Rocard polling a quarter and Chevènement the remainder. Nonetheless, it is the only French party that has an established mechanism for selecting a presidential nominee (Borella (1990), p. 169; Derbyshire (1990), p. 23).

As with the right, regional variation in party strength has greatly diminished in the postwar era. Its electorate, however, is notably younger than the electorate at large: 42% of its electoral base are voters under 35 years old, while in the full electorate 33% are under 35 (Borella (1990), p. 171).

Like other French parties, the PS has a number of regular communications outlets, including monthlies and weeklies, even while it has been unable to create a national daily newspaper. The factions also publish, such as CERES' L'Enjeu or the Rocardians' Interventions (Hanley et al (1984), p. 181). As with other French parties, not much is known about its finances, other than it receives income from the salaries of its officeholders and assigns member dues of 1% of their disposable income.

A number of telematic services built for the PS have come and gone. These have included services for the party itself as well as those built to serve its factions. Although the telematic services created by elements of the Socialist party remain minor communications tools one may observe repeated attempts to exploit the telematic medium that cover nearly the entire range of potential applications.

The party's first telematic service was internal. Called PSInfo, it was created September 1985 and was designed to replace a daily letter that went to 3000 elected officials and party officials. With an annual budget of less than 100 KF, three full time party employees worked on the service, of whom two were journalists. Approximately 800 screens were available permanently on the system, of which about 50 were changed each week. The heart of the service was the daily party news, updated each day at 3 PM. It also contained a Who's Who of the Socialist Party, and the lists of candidates for the next election (Temps Micro/L'Ordinateur Personnel (1986) p. 51).

Yet, for these efforts the service only received about 30 calls each day during the 1986 election campaign, leading one observer to ask, "does that mean that of 3,000 subscribers to the old daily letter, 2970 threw it away without reading it?" (Vasseur (1986), p. 25). Although the service continued to exist after the election it was no longer updated and was virtually unused.

"From the beginning it was a bad conception," says Gérard Prenant of *Démocratie Directe*. He lists three key reasons for the failure of the service:

It was built on a microcomputer, which was much too slow and small. There was no access via Transpac--a very big mistake because that made it very expensive to call from outside of Paris. And the information on the service just was not interesting. They could never get people within the party to write for PSInfo and put it there. Instead, they wrote for LeMonde or Libé.

Thus the service could not provide the key element that would have made it unique--access to "inside" or early information for a potential audience of those anxious to learn the latest political news.

In September 1989, the Socialist Party began again with the code PS, accessible on 3614. Table 9 reports the service's usage to the end of 1991 and yearly

Table 9

Usage of 3614 PS from 1989 to 1991

	month 1	2	3	4	5	6	7	8	9	10	11	12
1989												
hours									1,027	1,068	692	384
calls									10,316	10,158	6,643	4,166
1990												
h	1,010	1,203	603	582	599	513	202	152	953	750	906	853
c	10,152	13,013	7,552	6,013	5,554	4,920	2,013	1,504	9,554	8,047	9,320	8,992
1991												
h	569	528	423	497	416	529	102	95	324	519	739	504
c	5,793	5,226	4,686	4,659	5,304	5,322	1,302	1,253	4,137	5,436	6,276	5,640
									1989	1990	1991	
average monthly connect hours:									793	694	437	
average monthly number of calls:									7,820	7,220	4,586	

averages. It was designed to "enrich reflection" for those who "have a desire to talk, a hunger to learn, and a thirst for democracy" (Leger (1989, p. 7). It offers the history of the party, its latest news, and a calendar of political events. At first, users were asked their party membership number, but after the first year of operation the service opened to all callers. Generating the most usage have been live teleconferences, nine in 1989, twenty-one in 1990, and fourteen in 1991. Users may also leave a question for the party, for which they are promised a response within two days, most often by letter. In periods of peak political activity, ten to twenty questions are handled daily, according to Madeline Darbel, the party official responsible for the service. Users can not send messages to one another.

The service was created for the PS by Gérard Obadia, who runs a communications agency. He observes that usage

is very linked to events, either the news or the teleconferences, and to the promotion that PS does for them. When there is little publicity, as when the guest gives only short notice, there is little consultation. It requires constant promotion.

The period of greatest usage, Obadia reports, was January and February 1990, just before a highly contentious party Congress in Rennes. Teleconferences generally gather about 1300 to 1400 participants, who stay for an average of ten minutes.

Newspaper advertisements are purchased for the teleconferences, which are also mentioned in the party's weekly magazine Vendredi (of which 200K copies are distributed). But there is no ongoing publicity in either paid or party media. Depending on its usage, the service costs the party between 60 and 80 KF/month, or between 6% and 8% of its 1992 communications budget of 12 MF.

This is not, however, the only telematic activity within the party, whose largest and smallest *courants* have experimented with the medium as well.

With the help of the telematic agency founded by the creators of GAO, a service for the supporters of former prime minister Michel Rocard was created in February 1988. Rocard advisor Guy Carcassone reported two reasons for doing so: to reach their *militantes* in advance of other media, and "because it is easier to speak directly to them than through the party itself" (personal interview, June 1988). It offered callers Rocard's biography, his latest press clippings, a list of addresses of his supporters throughout France, his schedule, and his press releases and other reactions and comments on events. It also solicited questions that it promised to answer within 72 hours. No more than ten messages were received monthly, to which replies were sent by mail if an address was left and if not by Minitel. In addition to this public-oriented side, the service also included a private electronic mail system for 131 of Rocard's representatives in each *département* and in different party subdivisions.

"It was created," says Jean Michel Rollot, the *Rocardien* now responsible for it, "with the idea that Rocard would be a presidential candidate" (personal interview, April 1992). After Mitterrand announced that he would be a candidate for re-election the service continued, says Rollot, "but not like before," containing a more limited range of updated elements. After the presidential election the service was no longer maintained for the public, although the electronic mail system continued.

Rollot estimates that about ten messages were placed each week in all the electronic mailboxes and that the national office received perhaps fifty messages in an average week. "It didn't let us cut down on phone calls," he says.

People preferred the telephone. The questions they left were really the emergency route because they were not able to get us on the telephone and needed a response in 24 hours. They knew that I would have their message every morning. In general, people did both, leave a message and telephone.

With this in mind, the service was moved to 3614 in the Fall of 1989. Some two dozen additional correspondents (mostly members of the National Assembly) were

added and, in January 1990, each given a printer with which Minitel messages could be printed out, at a cost to the Party of 25 KF. Prior to this the service's operating budget had been on the order of 10 KF/month and required no more than an hour a day of staff time.⁶

With all the activity concerned with the Party Congress in Rennes, Rollot says "we had trouble contacting one another on the telephone. This was the time the service functioned best." He reports sending about six messages daily and receiving 100-120. "The places where there were internal party battles going on used it most."

Two months after the Congress, however, and while keeping the Minitel service, the Rocard faction created a fax network. The *Députés* received a fax machine from the National Assembly, but other members were instructed to secure their own somehow. Both systems operated in tandem for the second half of 1990, after which "there were hardly any more messages on Minitel." The advantage of fax, says Rollot, was that correspondents could send handwritten messages, while with Minitel they generally had to type it themselves. In addition, the fax was generally located in their workplace while the Minitel was in their homes. In February 1991 the service was disconnected from the network, although there are plans to relaunch the service in September 1992.

The next time around the target will again be the *militantes* rather than just the *responsables*. In evaluating their experience thus far he identifies the absence of any promotion as an important factor for its failure. "There was never any promotion. They found out about it by chance or by two or three newspaper articles." The motivation for re-starting the service would be to increase Rocard's network of supporters, cutting down on the amount of mail the office sends to them, and to be

⁶ An estimate of the start-up costs was unavailable, as were precise statistics on usage.

able to publish electronically a weekly version of their newsletter Convaincre, of which about 7,000 monthly copies are distributed. "Getting the attention of young people is one of the big reasons to do this," says Rollet.

"We started too early, without thinking about it," says Rollet. "Now we think people know how to use it, it is as normal as using the telephone. That wasn't true before." While last time "it was created with a lot of enthusiasm, there was never anyone in particular who was interest in it, a single person responsible for it. That will not be the case this time."

Finally, the party's smallest *courant* also began a telematic service in 1988 (code GAU). The *Gauche Socialiste* faction claims about 6% of the party membership including one minister of the Cresson government and one *deputé*. Remy Duveze, a member of the Massy *Conseil Municipale* describes it as being "very close to *SOS Racisme*," the best-known French activist group fighting racism (personal interview, April 1992). Since 1979 it has edited a two-sided newsletter that is sent to 4,000 people each week.

Duveze says the telematic service was begun

because it is a modern means of communication...Our objective was to be able to make a network of people who could share their ideas, as a means of horizontal communication for people throughout France. It's a very democratic means of communication.

He reports it generates about 100 connect hours monthly, and peaks at 300 connect hours at times of its heaviest usage. With an average call reported to be 3-4 minutes, average monthly calls would be 1,500, which is probably a high estimate. The service has about 100 electronic mailboxes.

It is hosted by a telematic service bureau that keeps the revenues generated by connect time, and Duveze reports that updating is performed by volunteers and takes no more than a few hours a week. It was used during the 1988 campaign for a forum

(asynchronous computer conferencing), but it was the electronic mail feature that "essentially justified the service," says Duveze.

The usage of telematics within the Socialist Party covers a wide range of potential telematic applications. None of them, however, can be said to have entered comfortably into the habits of those to whom they are directed, although each has had periods of modest usage. The most important role played by telematics in these examples is probably the usage of 3615 Rocard to leave a message for the Paris office during a time of such intense communications activity that all the telephone lines were busy most of the time. It is an appropriate symbol of telematic's comparative advantage: Users turn to it when nothing else works.

4. Access to Documents: DOCPCF

Since 1974 the French Communist Party has lost between a half and two-thirds of its electorate. Its "a deep crisis" is due in part to its "incoherence" and sharp changes of direction (Borella (1990), p. 175), as well as what Hayward (1983, p. 78) refers to as "the inept leadership" of long-time general secretary Georges Marchais.

Due to democratic centralism there is virtually no communication among various elements of the party operating at the same level. It is "an old-fashioned Stalinist party" which is "always right and no dissidents are tolerated" (Hanley et al, p. 102). Factions are prohibited and discipline enforced, making the party rigidly hierarchical and tightly controlled. It is, "a political machine, powerful but heavy, directed by a small group of co-opted men," says Borella (1990, p. 186). Nonetheless, its 25,000 party cells and network of salaried employees make it "by far the best organized of the French political parties" (Borella (1990), p. 188). In comparison with other French parties, write Hanley et al (1984, p. 184), "the PCF seems to have perfected a watertight system whereby a small professional elite decides

and imposes policy." Although it claims more than 500,000 members, perhaps ten percent of this number are the core of its membership (Hanley et al (1984), p. 185).

Two-thirds of its shrinking electorate are men. Its electorate is aging rapidly, giving it growing strength in the over 65 age group. Despite its commitment to the interests of manual laborers it does not get a greater percentage of this group than they make up in the overall French electorate. However, it does draw disproportionately from salaried employees and those outside of the economy (students and retired people).

Since it is the only party that is open about its financing a good deal is known about it. Dues from members and office-holders (who turn over their salary and are in turn paid what a manual laborer earns) account for most of its income. However, the PC also owns a number of commercial firms that compete effectively with capitalist ones, especially in publishing, which "remains one of the strongest anchors of the PC in French society" (Borella (1990), p. 193).

Its newspaper, L'Humanité, sells about 200,000 daily copies and the Sunday edition, its true mass communications vehicle, distributes about three times as many. Still, L'Humanité has seen its circulation drop by a quarter in the last twenty years and the regional dailies (except for Marseille and Lille) have disappeared. It publishes two weekly magazines and a number of monthlies including the popular Pif le Chien for primary school students. To this already formidable output can be added the publications of the federations, sections, and cells and those of organizations close to the party but not controlled by it, such as those of the union the *Confédération générale du travail* (CGT).

The party's involvement with telematics was long-announced but short-lived.⁷ It used telematics for the internal distribution of election results in the early 1980s and also announced in 1986 its intention to create a telematic news agency that was to serve as an alternative to the French news agency AFP, although no service followed this announcement.

"We don't want to go through Minitel's gadget phase with games and messengeries," said Guy Delachaud, head of the party's computer operation in 1988 (Fachet (1988), p. 13). The party placed its effort in making available some of its huge databases, including a press review that was drawn from 1200 national and international daily newspapers. This resulted in the creation of a service called DOCPCF that lasted a short time before disappearing. The party also used Minitels in the past for gathering responses to questionnaires at its annual *Fete de l'Humanite*. By 1992, however, it had no involvement in telematics.

C. The Right

1. RPR's Integration of Telematics and Party Affairs: Direct, Panel, and Resp

The *Rassemblement pour la République* (RPR) is the Gaullist party, the direct descendant of the party of Charles DeGaulle. Its first incarnation was as the *Rassemblement du Peuple Français*, a grouping of his supporters when he lead the provisional government that lasted from the Liberation until 1946, when DeGaulle resigned over opposition to the new constitution being drafted. The party returned as the *Union pour la Nouvelle République* a few weeks prior to the 1958 legislative election, and after 1965 began to take on more party functions like organizing rallies and producing election broadcasts. After poor performance in the 1967 legislative elections it was re-organized and, the following year, renamed the *Union des*

⁷ Perot (1988, p. 144) calls the PC "the big missing case in political telematics."

Démocrates pour la République (UDR). Even after DeGaulle's death, the party held extremely tight control over the government, which came to be called *L'Etat UDR* due to its control of not only the government but of nationalized industries, the higher ranks of the civil service, and television as well.

With six of the seven non-Socialist prime ministers since 1958, it can "claim to be the most important political force in the Fifth Republic" (Frears (1990), p. 28). As it was once Charles DeGaulle's party, now it is Jacques Chirac's, who, in return for his betrayal of his party's nominee to succeed President Georges Pompidou, was named prime minister by President Valerie Giscard d'Estaing in 1974. At the same time Chirac (a Pompidou protégé) also assumed control of the Gaullist party. Conflict with Giscard led to Chirac's resignation two years later, at which time he dedicated himself to turning the UDR into his electoral vehicle. He confirmed this control by renaming the party the *Rassemblement pour la République*, evocative of the original name for the Gaullist political force.

Chirac's hollow endorsement of Giscard in 1981 was among the factors in Mitterrand's capture of the presidency, which was more to Chirac's benefit than Giscard's re-election would have been.⁸ Upon losing his Socialist legislative majority in 1986, Mitterrand asked Chirac to form a government, which was in power until Mitterrand's victory in the 1988 presidential election and his subsequent disbanding of the National Assembly, which again gave him a working majority.

Chirac's direction of the RPR, as Borella (1990, p. 100) characterizes it, is highly personal.

⁸ The right is as rife with faction as the left, with the difference being, as Borella (1990, p. 97), puts it, that "their divisions explain themselves not by militancy and ideological reasons but by cleavages that are often due to conflicts of personality and interest."

This party that had been created by his efforts is very much his party. The statutory structure hardly masks the considerable centralization of power.

It is a highly disciplined parliamentary grouping whose substantial substructure of specialized study groups, regional organizations, and affiliated committees either provide "tasks for RPR deputies to give them the illusion of participating in the work of elaborating governmental projects" or are "empty shells" (Borella (1990), p. 106). Although during presidential campaigns and the period he served as prime minister Chirac resigned the presidency of the RPR (as is Fifth Republic custom), the post was held vacant, awaiting his return.

RPR is "highly structured and well-financed" (Frears (1990), p. 34) and claims 850,000 members.⁹ It is also a prodigious publisher, which recast its national daily newspaper La Nation as a daily press bulletin in 1974. It publishes a number of brochures for targetted constituency groups that are expensive and well-produced.

Its constituency has changed somewhat since DeGaulle, since it no longer benefits from his vote-getting abilities among industrial workers nor has it been strengthened by the increasing number of public service and white collar workers. Its core electorate includes farmers, retired people, professionals, and practicing Catholics, thus "a traditional right-wing electorate" (Frears (1990), p. 37) It draws fewer members of the working class or union members than their percentages in the electorate at large. Although the right has traditionally been strong in Northern France and among women, both gender and regional variations are showing signs of dilution (Hanley et al (1984), p. 161; Borella (1990), p. 108). To distinguish itself from Giscard's political grouping, its erstwhile coalitional partner and genuine electoral rival, the RPR has strengthened its organization and "is moving towards the themes

⁹ A figure "that seems far greater than its true membership," (Borella (1990), p. 105), and "in the French tradition of obvious exaggeration." (Frears (1990), p. 34).

of the extreme right, whatever disclaimers the moderates might make" (Hanley et al (1984).

In terms of its telematic involvement, its former General Secretary Jacques Toubon's proud boast in 1987 that his was "the first party to develop Minitel services on such a large scale" is undeniably true (Thibault (1987), p. 27). For four years RPR experimented with telematics, reaching the point in the presidential campaign of 1988 where the party's principal Minitel service shared equal billing with the candidate himself in a number of ads. If this integration of telematics into the party's communications strategies has come to an end, the reasons are as much the loss of Minitel's image as a symbol of modernity as the difficulty generating usage commensurate with the money and effort invested.

RPR's telematic experimentation began in the Fall of 1985 with a system that gave the party's top organizers access to about a hundred screens explaining its official position on a number of issues. Users, who were party representatives in various political jurisdictions, could also send messages to Paris and receive a response online. Toubon saw it as a mechanism by which his office in Paris could better communicate with local fieldworkers: "[a]ll my district delegates will be likely to have the information that I send. That means my activists, better informed, will be in better condition to carry on a dialogue" (Thibault (1987), p. 27).

Called Resp (for *responsable*), it was accessible on 3615 and served approximately 1300 party officials. It was promoted internally (with highly professional multi-color brochures) as a way to economize on paper and postage costs for internal communications. However, according to Alexander Basdereff, RPR's direct marketing director and leading promoter of its usage of telematics, two years after starting it it was "not a major way of communicating within the movement. We have too many older executives who are not used to it" (personal interview, March 1988).

In 1986 a joint RPR/UDF political club called *Printemps 86*, whose purpose was to work on laws that the right would propose if it returned to power, offered a Minitel service for political professionals. The objective of the service was to allow elected representatives to peruse the texts of proposals worked out by the organization. It was made up of approximately thirty themes (ie. privatization, security, etc.), each of which included several screens on the present situation followed by their "proposal for tomorrow." It received 250 calls a week and cost the organization approximately 30 KF to set up and run. It was not attached to any of the Teletel networks but was accessible directly from the telephone network.

The summer following the 1986 legislative victory RPR launched a public telematic service called Direct. It included sections devoted to news, commentaries by party leaders, and reactions posted by callers. The news section was built around a headline service, the schedule of public appearances by the prime minister (as long as Chirac held this position) and other cabinet ministers and party officials, and a review of the daily press's references to the government. For this latter section a party employee was dispatched to the prime minister's office each day to pick up a copy of his daily press summary, which was then retyped and put on Direct.

Material for the commentary section generally came from "*La Lettre de la Nation*," (a periodic party magazine that goes to about 20K *militants*), from news articles, or from journalists who were also party members. Also in this section was a set of games, including one with which one could determine if one was "BCBG" (*Bon chic, Bon genre*--roughly the French equivalent of the American term yuppie).

A final section invited callers to react. They were able to write a message to a party leader, ask for party position papers, or post a public message and read the comments of others. Toubon also used the service as a means of hosting live teleconferences with himself as the guest, although in the period between the

campaigns this was uncommon. A live messagerie was added to the service in November 1987, but discussion online was limited to several hours a day and kept under careful surveillance out of fear that, left unsupervised, people would talk about sex. "We do exercise ethical and moral control," said Basdereff at the time. "No racism, violence, or pornography are permitted" (personal interview, July 1988). Other than an advertisement in Le Figaro, the service was not promoted during this period except in party publications.

In preparation for the 1988 campaign RPR began a third telematic service. It was called Panel (accessible on 3613) and it was a representative sample of RPR's general membership that was polled to assess the broader membership's likely reactions. In the Fall of 1987 the party solicited its membership for their participation, and of 1700 volunteers 700 were selected according to their demographic characteristics. Those without Minitels were instructed on how to go about getting one. After the telematic panel was established, a scientifically valid poll was conducted of all party members. By comparing these results, an estimate was made of the statistical adjustments necessary to make to the results of a poll of the online panel so that it would reflect the likely opinions of the entire population.

Between October of 1987 and the start of the campaign in January 1988 this panel was asked six sets of from 15 to 30 questions, for which they had between two and four days to respond. It was used, for example, to determine variations in the popularity of RPR's leading representatives so that they could be sent to the areas and before the groups where they would have the greatest impact.

In January 1988 the party launched its campaign. One of the key early events was a two hour appearance by Chirac on TF-1's "*Du Monde en Face*," on 14 January. Following the show, six RPR cabinet ministers were available to answer questions via Direct and the event was very widely covered in the press. Approximately 2500

successful connections were made during the two hour teleconference. Some number of additional callers tried to make the connection and failed. The service had sixty-four lines for incoming calls. About half of the questions went to Health Minister Michelle Barzac (on AIDS, the drop in the birth rate, etc.)

In assessing this event, the first of its kind, Toubon acknowledged that the core of Chirac's constituency are older voters not especially receptive to this new medium. "Only a minority of rightists are against Minitel," he said, adding, "Our wives use it to purchase beef" (personal interview, January 1988). Because of this, he maintained that this made it a good medium with which to make inroads into the Socialist Party's more youthful constituency. "I think *Minitelists* are not natural voters for Chirac, but it is better and more efficient to speak with people who are not our voters or even members of our party. I would say that two-thirds of the questions [at the live teleconference] were negative, and some were quite aggressive. But that is good. It gives us a chance to answer people directly."

As the campaign began Toubon was quite positive about its potential for political communication. "I have no doubt," he said, "that in a few years the use of Minitel will be widespread. I am in favor of the best ways to communicate in politics, and Minitel is the very model of sophisticated and intelligent communications because answers must be personal, brief, and clever. Why should the political parties be the *only ones to stick with the old ways*? That is absurd. It is 1988 now in France and telematics is a part of our lives."

Following this highly publicized launch, the service was integrated into virtually all of the campaign's direct marketing and mass advertising. For example, the youth division of the party had a bus painted with huge letters across the side exclaiming "36.15 code DIRECT...Paris avec Jacques CHIRAC." The service was promoted in their publications as "a direct line to Jacques Chirac." The candidate's

activities were also promoted via radio and newspaper advertisements that offered the Minitel service as a way to receive more information. (On radio: "Chirac will be in Montpellier on Thursday, for more information call 36.15 code DIRECT." A newspaper ad: Tonight Jacques Chirac is in Orlèans...To better know his project for France...on your Minitel 36-15 code DIRECT.") Rallies without the candidate were also promoted similarly, and each of the party's publications included brief display advertisements for the service as well.

A final teleconference (not live) was held two weeks before the legislative election when Budget Minister and campaign spokesman Alain Juppé answered about four hundred questions. Table 10 presents Direct's usage statistics for the period of the presidential campaign.

Table 10
Usage of 3615 Direct during 1988 presidential campaign

	<u>calls</u>	<u>hours</u>
January	4,695	505
February	5,616	588
March	13,362	1,623
April	18,154	2,670
May	15,113	2,215
	-----	-----
Totals	56,940	7,601
Monthly averages	11,388	1,520

Source: RPR

No expense records were made available by which the costs associated with this activity may be assessed.

Direct was also used for the 1989 municipal elections for some of RPR's leading candidates. Basdereff reports a considerable effort being made for Michel

Noir's campaign for mayor of Lyon, for which "we had hopes for far more than what we got." He characterizes the number of calls received as "extremely small--maybe a few hundred connections for a city of half a million. It was lots of energy for very little contact" (personal interview, April 1992). The service was suspended after that, and Basdereff says it will probably not be re-opened for the legislative elections of 1993 but may be resuscitated for the next presidential election.

In terms of the benefits it offered the party, Basdereff has consistently denied what one may conjecture to be the most important: finding new names and addresses of supporters and potential contributors. Gérard Prenant of *Démocratie Directe* calls RPR's telematic service a streamlined "*machine du guerre*," that in exchange for having given the chance to ask a question requires the questioner's address, to which they are sent one of perhaps fifty standard "personalized" letters. Basdereff says, however, that it wasn't seen as a fundraising tool but "as a means of dialogue. When people see something on TV, for example, we want them to be able to react to it." Some new contributors were found that way, he says, but never very many.

What worked best, according to Basdereff, was the ability it gave people to express themselves. During the campaign he reports about 100 messages a day, with days in which more than 1000 calls were received. "It worked well for the election, but it is just not worthwhile between elections, especially when we are not in power." Still, users liked it because "it is a bit of a game, more like play...it gives something of the feeling of a video game, showing you screens and images."

Yet, as he says, the medium has some important limitations. "It is still more exciting to have 5000 people in a meeting than to have 5000 Minitel calls...There is more enthusiasm generated and more press impact, but the messages cannot be personalized." Managing the service also required an enormous effort. "It clearly wasn't a mass instrument that justified the investment of time and money. We could

influence more people by other means. I had to put too much energy into it to get people to use it, since they didn't have the reflex to use it." While with time more people have access and have taken on the habit of consulting it, the very popularization of Minitel works against its further exploitation as a political medium.

In the past, says Basdereff, "it had a modernist image, that showed that politicians were *branché* (meaning "hip", or "with it") because they had a Minitel service. Now it is much less *branché*, it is no longer avant garde, now it is a daily tool. As it has become a regular habit it has become less useful." Basdereff is now enthusiastic about audiotex, not just because there are telephones everywhere, but because it is new in France and hence has the benefit of conferring the image of technological mastery upon those using it.

RPR's telematic activities have run a wide range of potential applications, which were extremely well-promoted and integrated into the party's activities, especially during the presidential election. The benefit gained from these activities, however, is not so much to be measured by calls or connect hours or even the interaction with potential supporters or contributors, but the image conferred by its association with Minitel, used as the archetypical symbol of technological power. Thus, ironically perhaps, the more Minitels there are in French households the less value the device has as a symbolic reference and the less value it has in politics.

2. Users in Virtual Space and a Space Virtually Unused: Barre and Radical

In contrast to the organizational cogency of the RPR, the *Union pour la Démocratie Française* (UDF) "is almost a pure example of a parliamentary party" (Borella (1990), p. 114). Representing the liberal (in the 19th century sense, meaning free market) right, this political grouping began with the opportunistic break away of a group of *députés* of the *Centre National des Independents et des Paysans* (CNIP), a party of the Fourth Republic. A loose parliamentary grouping of local notables with

only a vague ideological anchorage, they became the *Fédération Nationale des Republicains Independants* and supported DeGaulle's 1962 referendum on direct election of the president.

The group had no membership, and its leader Valerie Giscard d'Estaing, asserted:

We do not seek to be a party. We do not pretend to dictate our law to imaginary militants. We are a meeting place and a movement (Le Monde 5 February 1964, in Wright (1984), p. 102).

Rewarded for his solidarity with the Gaullists, yet unwilling to become part of their party, it wasn't until Giscard was dismissed from his post as Finance Minister in 1966 that the group began its life as a political party and electoral vehicle. It was based on political clubs and sought moderates who wished to engage in political discussion. Giscard's opposition to DeGaulle's 1969 referendum and its subsequent defeat, which led to DeGaulle's resignation, earned long-lasting reprobation from among hard core Gaullists, but helped Giscard steer his political grouping to a position of independence.

As President, Giscard was heavily dependent for his parliamentary majority on UDR deputies, to their mutual discomfort. Many of Giscard's principle policy initiatives such as the legalization of abortion and liberalizing of divorce laws were passed with Socialist rather than Gaullist support. Upon Chirac's resignation Giscard chose economist Raymond Barre as his new prime minister, who was faced not only with a worldwide recession and rising unemployment but with a very unstable parliamentary majority. In preparation for the 1978 legislative elections, Giscard's party was renamed the *Parti Républicain* and its organization restructured. A major effort at building membership increased its size by 50% between 1975 and 1979, to 145,000 members. But the more important change was the successful negotiation of

the PR and three other parties into a loose *Union pour la Démocratie Française* (UDF), opening up clear fissure between two major political groups on the right.

Barre was its nominee in the 1988 presidential election. Chirac's organizational and financial advantage turned out to be important elements in his ability to prevail over his rival on the right, who became the UDF candidate in large measure by his choosing rather than theirs. His program was little different than Chirac's, but

he was supported by an ill-funded, disjointed and by no means fully loyal UDF machine, and in his campaigning style was overly ponderous and sententious (Derbyshire (1990), p. 142).

Barre's standing in opinion polls fell during the campaign, while Chirac's opportunistic actions as prime minister, including purchasing the release French hostages in Lebanon, boosted his standing. Yet, while Chirac was able to displace Barre from the second round run-off against Mitterrand he was not able to ultimately prevail. He won just 2% more than he'd gained in 1981, but probably brought an end to the era in which candidates sought the highest office in French politics without the support of a solid and modern party apparatus.

The UDF's electorate is indistinguishable from that of the RPR, although it may draw slightly better among the older elements of the electorate. Its core constituent party, the PR, claims 145,000 members or more than half of the 250,000 claimed for UDF as a whole.¹⁰ Its amorphous structure carries with it some advantages, particularly in terms of programmatic mobility, as Borella (1990, p. 12) concludes:

Often moribund but never dead, UDF has not succeeded at becoming a political party. It has remained an electoral cartel with vague organs of direction at its top and episodic and impotent structures at its base.

¹⁰ Frears (1990, p. 43) offers between 60,000 and 100,000 as a more realistic figure.

In reality, and without paradox, it is this organizational weakness that gives it usefulness and thus its force.

Ideological ambiguity also enhances UDF's maneuverability. Its major element, the PR, has "for 50 years been unanimously considered a party without a program" (Borella (1990), p. 143). A recently launched and carefully orchestrated rhetorical attack by Giscard on the "invasion" of immigrants in France may steal the thunder of the extreme right at the cost, however, of driving the second most important constituent party of the UDF, the *Centre des Démocrates Sociaux* (CDS), out of the coalition.

The UDF's telematic involvement is conducted mostly by individual candidates and by the member parties that comprise the UDF coalition, the most important of these being the service created for Barre's presidential campaign in 1988 and the nearly still-born service created by the *Parti Radical* in 1989.

The first service that presented the UDF to potential voters via Minitel was built for the legislative elections of 1986. Called MMD (for *Méthodes Modernes Démocratiques*) it offered a telematic magazine and databases on the party as well as a feature on the performance of the national economy. Six or seven regional party organizations had sections of the service that were under their own editorial control. An electronic mail system was available for leaders of the party and its federations and also a mail system that allowed citizens to deliver messages to the party's *responsables*. The service included between 700-800 screen pages, with perhaps thirty being updated on a daily basis. The party invested more than 300 KF in the service, which gathered between sixty and one-hundred calls each day for about 1000 hours of consultation each month, according to published reports (Temps Micro/L'Ordinateur Personnel (1986), p. 51). Also in 1986 Barre's publication Facts

and Arguments was made available on a service called GCCOM, which served as the predecessor of the service made available in 1988 (Fachet (1988), p. 12.)

For the 1988 presidential election Barre's campaign created a service called simply Barre. It opened in early February (on 3614) and organizationally was a part of the campaign's press office. It can be characterized as a massive database, with 1600 screen pages. It contained the campaign's leading news story of the day, Barre's position on the top twenty issues of the campaign, a press review, a biography of Barre, his schedule, his bibliography, and a database a caller could search to determine who was responsible for the campaign in a particular political jurisdiction. Users were also invited to send messages to Barre or to other campaign officials. "Your interventions are listened to and taken into account," the posters advertising the service claimed. It received about twenty comments in an average day. Questions were also solicited. They were each given a title by which they could be retrieved, with all answers posted publicly on the service.

The campaign reported that many of the callers identified themselves as people seeking information about Barre on behalf of an organization or association. According to Florence de Bollardière, who was responsible for the service, it was commonly used to search for a position on a particular issue, after which the user requested that the desired position paper be sent by mail. "It was rare," she says, "for someone to stay connected for twenty minutes to read to the end of a subject." The service received on the order of 200 daily calls outside of peak periods. When Barre was featured in the news the number of daily calls could reach 1000.¹¹

¹¹ Three sources give wildly varying estimates: In March 1988 Christiane Binot reported 1500 daily calls (personal interview), a Barre press release in April 1988 claimed an average of 1000/day, and in 1992 de Bollardière revised that downward to 200.

As the RPR opened its campaign with a Minitel-related event, the UDF closed its campaign with one. On 22 April 1988, two days before the first round of the election, the Barre campaign held a "*journée inter-active*" to give callers a chance "to pose their questions and obtain an immediate response by Minitel" (press release, 14 avril 1988). Twenty-two high ranking Barre supporters including nine *députés* and ten former or current ministers responded from Barre's campaign headquarters in a twelve hour Minitel marathon. It was billed as offering "the rare possibility for *militants* to communicate directly with our national leaders," and was both advertised (the only time paid advertising was used to promote the service) and well-covered by the press. De Bollardière reports more than 4000 calls and well more than 1000 questions answered. It worked "extremely well."

The telematic service was useful to the campaign, she says,

as an immediate barometer, the instant reaction to something in the media. It gave us some feedback, although of course it wasn't representative, not at all scientific. The wind that blew in from the Minitel audience was in advance of other media...far in advance of what came in from the press or in the mail...It was the fastest and turned out to be true later.

Comments and questions left on the telematic service were summarized weekly and given to the candidate.

De Bollardière expresses certainty that the service would be revived if Barre is again a presidential candidate, although conceived differently with less text and a quicker solicitation of a name and address to which information could be sent by mail.

The Minitel service was much less integrated into the campaign's activities on an ongoing basis than was RPR's. Yet, on the last day of the campaign many of the party's heaviest hitters were united for something more than a teleconference, an event that may be better characterized as an online rally. Thus, Barre's campaign ended

with his most committed supporters brought together electronically--in real time but in virtual space.

The telematic activity of the *Parti Radical* is quite a different case. Among the most important political parties of the Third and Fourth Republics, it has been, as Wright (1989, p. 200) characterizes it, "reduced to a marginal and insignificant force during the Fifth." Nor is it even especially influential within the UDF coalition. It claimed 11K members in 1992, three *députés*, thirteen Senators, and three members of the European parliament. Its telematic activity was begun quietly in 1989 and has remained virtually invisible.¹²

The service (code Radical on 3615) was begun on the initiative of two of the party's representatives in Aquitaine (the region that surrounds Bordeaux). Both were affiliated with the *Conseil Regional* (one as an administrator the other as a member), and as the party's staff member for press relations, Guénola du Couëdic, explained, "it was done practically free since the computer service bureau had other business with them" (personal interview, April 1992).

The service was designed for both internal communications and callers from outside the party. "At the start," says du Couëdic, "there were both internal and external messages. People sent, for example, congratulations when we had a party congress." Most of the service is semi-permanent information such as the party's history, biographical sketches of its leading members, its political platform, a chart of its internal organization, a list of its elected officials, and a section on how to join. Party *responsables*, who are issued a special code for access, may view the three or four communiqués entered each week. "We could send them messages," she says, "but no one uses it." The public side of the service also includes a section in which

¹² In addition, the *Centre national des indépendents-paysans*, another party of the UDF, briefly had a service on 3615 from 1989 to 1990 that no longer exists.

users may leave the party a message. "We get maybe two messages a month," says du Couëdic, "one of which is serious and the other is an insult." Response is made by letter if the individual has left an address.

The service requires no more than thirty minutes of attention a week but it costs the party nothing, and it receives no revenues, which remain with the service bureau. In February 1992 it received about 100 calls for 6.5 connect hours. It is not mentioned in other party publications but seems to exist in limbo, unknown and essentially unused. As du Couëdic says, there is "no real interest in the service. It continues to exist since it doesn't cost anything and doesn't demand any time."

These examples define the two extremes of telematic usage. For Barre's campaign its service momentarily received tremendous attention. It offered a means by which a large number of people could feel connected to the campaign and its principal stars, for a brief period of time. In the case of the *Parti Radical* the telematic service arrived almost as an unsolicited gift, one that has been more or less left unopened at the bottom of a closet. Little effort has been made to integrate it into party affairs, out of the no doubt wise evaluation that an investment of further time and energy would be unprofitable. The telematic audience that does exist, one may conclude, is ephemeral and temporary. What does not seem to exist is the methodic, regular, and institutionalized use of the medium for daily business, at least not as it concerns the life of a political organization.

3. The Uncontrollability of Interactivity: LePen (FN, Natio)

Although the *Front National* (FN) has effectively used the fear of immigration as its mobilizing theme to gather attention in recent elections, the party draws from three long and well-established sources of neo-facist sentiment in France. Remnants of the monarchist tradition, an anti-intellectual populist element, and reactionary forces opposed to modernization and the shedding of French overseas holdings have

combined to form the FN. With the fall of the fascist Vichy regime at the end of World War II, the extreme right disappeared as a political force until the 1950s. It was resuscitated briefly by a popular protest movement in defense of the traditional French social structure (notably independent merchants and artisans) whose abilities to earn a living were being mortally wounded by state-led modernization efforts. In 1956, 2.5M people or 12.5% of the electorate voted for shopkeeper Pierre Poujade and elected 51 deputies, including the 27 year old Jean-Marie LePen. Similarly, far right opposition to Algerian independence led to a revival of right-wing support, but DeGaulle's handling of the matter, police repression, and the timing of the election calendar dissipated this movement as well. By the presidential election of 1965, Jean-Louis Tixier-Vigancour could gather only 6% of the vote and the far right virtually disappeared until the 1980s.

The FN was organized in 1972 out of the attempt to bring extreme right wing elements engaged in violent direct action into the electoral forum. LePen's first presidential campaign in 1974 won less than 1% of the vote. In 1981, he was unable to obtain the *parrainages*, or signatures of elected officials necessary to present a candidacy. However, in 1983 the FN began to record some electoral success, winning 11% in the 20th *arrondissement* of Paris and 16% in Dreux (Normandie) and, due to a second ballot agreement with RPR, a seat on the local council.

Due in large measure to the Socialist's re-introduction of proportional representation for the 1986 legislative elections, the FN's 10% of the vote brought them 35 parliamentary seats. Although the victorious UDF/RPR coalition refused a parliamentary alliance with them, the traditional right did ally itself with the FN in several regional council elections held the same day.

In the 1988 presidential election LePen shocked the political establishment by coming in a bare two percentage points behind former Prime Minister Raymond

Barre. He was the leading candidate on the right in three of France's 22 regions and in essence forced the other parties of the right to accept local alliances with his party. The dismantling of proportional representation after 1986--over the FN's strenuous opposition--was fatal to its parliamentary placement. Thus, virtually the same vote in the 1988 legislative elections as they had gathered in 1986 this time earned them only one *député*, who was later expelled from the party. In 1989, the party won 1000 seats on local councils and ten seats in the European parliament.

For its first ten years, the FN was "a skeletal and disorderly organization" (Borella (1990), p. 209). But its reorganization in 1982 on "a centralist and hierarchical model" allowed it to be run "in quasi-military fashion." Electoral success, however, has made the organization far more difficult to control. No national congresses were held between 1985 and 1990. And while LePen holds tightly to the reigns of power,

structural rigidity hides a congenital weakness: the contradiction between doctrinal rigour on the part of some and the extreme sensitivity to electoral standing on the part of others (Borella (1990), p. 209).

Having established an electoral base, the party is more organizationally solid than previous manifestations of the extreme right.

The party's greatest asset is LePen's skillful manipulation of the media. He is able to use inflammatory rhetoric to gain the condemnation of other political groups and further recognition and publicity for his own. As Frears (1990, p. 120) says of LePen's 1988 exploitation of the television time allotted to him: "It is difficult to recall election broadcasts ever having been used more effectively in any country."

The FN electorate is now somewhere between 5% and 10% of the vote. Its core supporters are male voters in urban areas, especially those with high percentages of non-whites. In particular, the FN draws strongly

in deprived urban areas where there are no active associations or organizations to integrate the inhabitants and work to improve the neighbourhood (Frears (1990), p. 120).

It is younger than the electorate at large and draws best among the lower social classes (salaried and wage employees) and the traditional anti-taxation elements (farmers, small businessmen, artisans). Its areas of regional strength include the Mediterranean coast, the Rhone Valley, the Paris Region, and eastern France. Its electorate is highly volatile and the party is "riven with bitter conflicts," (Frears (1990), p. 122) yet it has fought its way into a seemingly permanent place in the constellation of French parties.

The party began a telematic service in 1984, "because at the time it gave the image of being modern," according to Arnaud Soyez, the party staff member responsible for it (personal interview, April 1992). Soyez, whose responsibilities include computing and the management of the files of party's 70K members, took over the service at the end of 1987. From its conception until then one staff member gave it full time attention. Soyez reports that it gets perhaps a sixth of his time, but that "we are obliged to have a telematic service," if only to distribute press releases and offer the names of those responsible for the party's affairs in different regions.

The service contains the reactions of Jean-Marie LePen to the news of the day, press releases, elements of the party's program, an agenda of public events, lists of publications and affiliated right-wing organizations, a special youth section, and a section in which callers may leave a message for Le Pen or two other party officials. Responses are given by letter when the caller leaves an address, and Soyez reports that the least known of the three officials for whom messages may be left receives about thirty a week.

Originally called Natio, the service codes LePen and FN were added at the time of the 1988 presidential election. A section in which people could "sound off"

or leave a public message for Le Pen and his party was eliminated after the campaign. "I had to get rid of it," says Soyez, explaining that at first he created a "filter" that would check messages for about 200 forbidden words and automatically erase those containing them. But "there are so many ways around it" that after three months of experimentation with this method of oversight all messaging was ended. A section in which people leaving a question would be issued a private code with which they could recover the response was also eliminated.

The service has never had a live messengerie or electronic mail for the party's supporters to communicate with one another. The idea of doing so, says Soyez,

is conceivable, but it is beyond control. You'd attract parasites who would leave obscene messages. We can't do interactive stuff because you'd get things that were either explicitly bad or implicitly so, like for example 'young Nazi seeks young Nazi woman.' We can't have that... You can't put too much play-oriented stuff on the service. That is dangerous.

He reports that the service gets between 700 and 1000 connect hours monthly and that calls average ten minutes, with the press review the most frequently consulted part of the service. It is occasionally mentioned (by a small advertisement) in La Lettre de Jean-Marie Le Pen, a newsletter sent biweekly to all members. The same kind of promotion is done in other party publications, although there is no linkage made between the telematic service and the articles in the publications. Usage is more apt to be prompted by external events, Soyez reports. "Each time there is an attack involving the party we go well beyond 1000 hours for that month. It goes along with membership and mail," he says.

"In general," he says, "I don't think we exploit more than 10% of Minitel's potential, and not just us but the other parties either." Why not allow hostile callers to run up the number of connect hours, take their money for letting them insult Le

Pen and then just erase their messages? "No, no. We seek to contact and convince people, not to make money."

In this case, the service has become even less interactive with time, as the party decided that the amount of time and attention necessary to keep hostile messages off the system was not worth it. It seems likely that the *Front National's* service could generate an order of magnitude more connect time--although perhaps not coming from callers who wish to express their solidarity with its aims.

4. The Loss of Minitel's Value as a Symbolic Reference: Rufenacht

One candidate in the 1992 elections had a telematic service.¹³ Antoine Rufenacht, an RPR *député* and former minister was seeking to retain his place on the *Conseil Général* of Seine-Maritime (Normandie). For the campaign his Paris advertising agency created and managed a telematic service. Years earlier this would have attracted attention and generated some favorable publicity for the candidate. Now, it instead went virtually unnoticed.

It was created in October 1991 at a cost of 25 KF, including its maintenance, which was done not by the campaign but by the advertising agency. It offered Rufenacht's political platform, the names of the other members of his list and their biographies, and a special section on the university supported with regional funds for which one could fill out a questionnaire. The service's main menu insisted that "your suggestions and remarks are essential for us." The telematic service was represented as a way "of permitting us to give you the ability to address us." They were invited to leave their comments.

¹³ There may have been others that were not discovered.

"The advantage of telematics is that it offers interactivity and rapid response," said Gautier Guillet, who created the service for the agency *Etat d'Esprit*. "But its important not to have too many illusions on this point," he continued.

Theoretically that is true, but few use it. The users don't know how to use it and the creators of services don't know how to incorporate it. I'm not sure how to do it, either. The advantage to the candidate is more in the image that it gives than in usage of the service itself.

Guillet says the code 3615 Rufenacht was included in all of the campaign's literature but that there were no articles in the press about the service outside of references to it in a more general story. It received about 6,500 calls and approximately 500 connect hours, which Guillet calls "not a great success." There was "no real relationship between the service and the campaign."

"People didn't use it for the interactive stuff," he says. "It is more like a little TV on which one watches text." Guillet was previously part of the RPR's telematic operation and created a service for RPR's regional office in Hauts-de-Seine that no longer exists. Speaking of politically-oriented Minitel services, he says: "None of them work really, but they can at least be made to appear to work with massive publicity."

Not just the impact but here even the goal is to aid the candidate's image by creating the illusion of interaction with the public. What is sold is the image of interactivity rather than interaction itself. But as the device becomes more popularized, more normal, it is less and less a symbol of modernity. As with the experience of RPR, one sees in this the loss of Minitel's political usefulness as its ability to confer the image of a candidate both modern and open to communication with voters diminishes with time. "It is not very expensive to do," says Guillet, "so there will always be those who try." By 1992, however, even those trying was reduced to what was in all likelihood a list of one. And the attempt doesn't fall into the category of

political participation but clearly and distinctly as an attempt at political marketing. Nor, it seems, was it especially effective even at that.

IV. Summary

Electoral telematic services, as one interviewee put it, are "the cherry on top of the cake" (Claude LaMotte, telematic editor of LeMonde, personal interview, July 1988). They are the clearest and most direct means by which attempts are made to translate the technical capability of interactivity into social interactivity, in this case participation in politics. Their failure to do so can not be said to be due to a lack of trying, since virtually every major political grouping in French politics has tried, as have some of the leading non-partisan fora for political interaction.

What they find is that their audience, for the most part, is made up of committed activists rather than undecided voters seeking to make an informed decision. Even when they work at establishing a mechanism by which individuals may question their political leaders, political telematic services are a medium in which sustained political discourse is virtually unknown. The best of the answers given to callers more closely resemble the rhetorical half-truths that in a live question and response session would be dismissed as non-answers. There appear to be no relationship between what happens on Minitel and the results of campaigns for public office. Most electoral telematic services remain at level one interactivity, the selection of messages to be sent to the user, and touch at times level two, the ability to send textual messages. Level three, dialogue, is rare and level four, in which a decision is reached or some effect outside of the conversation is produced, is unknown.

The essential benefit to politicians building telematic services has been to link them with the modernist image provided by Minitel and to represent them as leaders who listen. But the popularization of the device has diminished its usefulness as a

political symbol, which accounts in part for the diminution of attempts to capitalize on it. Despite this, the intuitive relationship between political debate and the telematic medium--the idea that one ought to have something to do with the other--has been remarkably durable. The leading provider of electronic mail services on the Teletel network (discussed in greater detail in Chapter VI) has put a great deal of time and developmental effort into sophisticated software on which a politically-oriented service could be run, and secured the rights for the code politique. "I think it would work," he said in the Spring of 1992, "don't you?" (Pierre-François Garimaldi, personal interview, April 1992).

Chapter V

Governmental Communication: Telematics and Decentralization

If a focus upon campaigns and elections is insufficient for an analysis of political communication nowhere is this more true than in France. The politicization of bureaucratic politics comes primarily from three characteristics of the French administrative/political apparatus: due to the structural weakness of the legislature in the Fifth Republic, many of the decisions that are made in the political realm in other nations are made by administrators in France; many of the administrators are themselves politicians since the system is designed to encourage them to develop political careers; and finally, through its control of firms that are either state-owned or state-controlled the French state apparatus is responsible for making decisions that would be private in other Western nations.

In addition to this interpenetration of political and administrative decision-making there are two other important reasons for a broader definition of political communication. First is the enduring memory of the epoch in which governmental and electoral communication were mixed together. Although their separation into distinct spheres has been a key achievement of the last ten years, their independence is far from established. Due to this legacy the credibility of governmental information, according to Françoise Giraud, will take a century to be restored (in LeNet (1989), p. 17). As a result, a model of political communication that represents the media as independent of governmental authority, which has recourse to it when it wishes to conduct public information campaigns is not just inaccurate for France but, for most of the Fifth Republic, even absurd. Second, telematics has been looked upon since its origins as an opportunity to enhance decentralization. Conflict over the distribution of decision-making authority between central and local governments has

been one of the most enduring areas of political contention in the Fifth Republic and one in which telematics was identified as having a role to play. For all of these reasons a conception of political communication must be broader than simply that which concerns campaigns and elections.

This chapter measures the reality of French telematics in the governmental arena against the rhetorical linkage that has been forged between telematics and decentralization. Telematics, according to the Nora and Minc report (1981, p. 5),

allows the decentralization or even the autonomy of basic units...it facilitates this decentralization by providing peripheral or isolated units with data from which heretofore only huge, centralized entities could benefit. Its task is to simplify administrative structures by increasing their effectiveness and improving their relations with those under their jurisdiction. It also allows local municipalities more freedom.

To "derive maximum benefit from newly created possibilities for reorganizing administration" the Nora and Minc report looked to telematics "to expedite decentralization and the lightening of the administrative burden" (p. 7, 9). Even a cursory look at the usage of telematics by French national, regional, and local governments reveals this language as rather hollow. A more difficult question in looking at telematic services developed by these entities is why this has been the case.

The remainder of this chapter is divided into two parts. First, a brief introduction to bureaucratic politics in France is followed by an analysis of administrative communication and the use of telematics by national agencies. A second section reviews the history and structure of France's subnational governments and then investigates their participation in telematics.¹

¹ Another area that may logically be included in governmental communication is communication between elected representatives, such as members of the National Assembly, and their constituents. However, after a period of experimentation in 1988, there have been no attempts to develop permanent means by which citizens

I. The National Government: Administrative Communication

The core of the national government's effort at communicating with the public is the *Service d'information et de diffusion* (SID), which was created in 1976 as the successor of the once-powerful *Service de liaison interministériel pour l'information* (SLII), discussed above in Chapter III.² Among its duties are the coordination of governmental publicity campaigns, which as shown in Table 11 have grown from an expenditure of 195 MF in 1985 to 322 MF in 1990.

Table 11

Expenditures by the SID on publicity campaigns, 1985-1990

	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
expenditure (in MF)	195	171	237	244	275	322
number of actions	58	42	37	34	53	53

sources: Albert (1990, p. 73) and SID "Bilan 1990"

Yet, this is neither the total of all of the national government's expenditures on communication nor indicative of its influence in this area. These are only the

could communicate with their legislators online. It is an open question as to whether this is due to the system of *cumul de mandats*, which allows elected officials to hold a number of public offices simultaneously (three-quarters of the *deputés* are also mayors, according to Frears (1991, p. 140) while Mendras (1991, p. 126) says "virtually all" are mayors), or the strength of party voting in the legislature (Converse and Pierce (1986, p. 694) find "the sanctity of party solidarity" to be "quite overpowering"), or the constitutional limitations on the duties of legislators (severe restrictions on their agenda and ability to amend legislation, and lack of staffs and investigatory powers), or the limited capacity of the medium itself. It is likely that all of these play a part.

² The SLII was replaced in 1968 by the *Comité interministériel pour l'information* (CII), which became the *Délégation générale à l'information* (DGI) in 1974 and the SID two years later.

government-sponsored official publicity campaigns conducted with the official endorsement of the prime minister's office. The actual expenditure by all national agencies combined is several times the figure above, but even that doesn't begin to account for the activities the national government engages in that are communicated to both the mass public and select audiences. To get a sense of that, one must look at the role of the state in French society.

A. Centralization and Bureaucratic Politics

The French state apparatus has deep historic roots and continues to attract the nation's most gifted young people. It is the principle locus of decision-making, particularly on the allocation of capital, that in other Western states rests in private hands. This tradition produces patterns of communication that reflect the distribution of power. French public decision-making in many key areas of public policy has been decidedly insulated from popular pressures, even as expressed through electoral institutions. In particular, the French planning process has virtually removed key areas of policy from popular control, with those important areas of policy becoming, as Schonfield (1965) puts it,

an act of voluntary collusion between senior civil servants and senior managers of big business. The politicians and the representatives of organized labor were both largely passed by (p. 128).

Although the influence of the planning process has been reduced due to the increased power of French industry and the dominant role of the international economy in economic decision-making, state institutions continue to exercise considerable control. As a result, politics has been displaced from political institutions to direct communications between the technocrats who run the ministries and those who are directly implicated in the decisions it makes.

It is not that the bureaucracy rules due to its size. As Ashford (1982) points out, even if local government employees are included it comprises no more than 2

million people, well below the size of the British administrative apparatus. Rather, it is due to the high prestige of the administrative elite, no more than several thousand, who make up a network of individuals with loyalties to one another coming from their common educational background as graduates of one the *grands ecoles*, the *Ecole National d'Administration* (ENA) or the *Ecole Polytechnique*.

As Berger (1974) explains it, there are two reasons behind the development of administrative policy-making as a political arena. The first is the widespread consensus that special education is required for competent decision-making, which leaves to bureaucratic discretion even decisions that are not essentially technical. But in addition, the constitution of the Fifth Republic has been written to strictly limit legislative powers, allowing many areas of potential conflict to spill over into administrative jurisdictions.³ As she shows in a conflict over health insurance for the self-employed, "one can only conclude that the bureaucrats, not the deputies, were in the long run the decision-makers" (p. 109). In agricultural policy as well, she shows that negotiations that formerly took place between peasants and deputies were conducted by bureaucrats and interest groups, thus bypassing the political parties and the legislature.

³ The limitations placed on legislators by the Fifth Republic's constitution are substantial: their agenda is controlled by the government; they have a limited number of days to be in session and in which act on the national budget, which may be enacted by ordinance if not passed by the time limit; the Assembly is organized into six huge committees, whose work may be overturned by the government's demand that they vote on a proposal in its unamended form; the subjects on which they may vote on are strictly limited, with the remainder defined as subject to regulations promulgated by the government without legislative participation; they are forbidden to propose increases in expenditure or reductions of taxation; the government may play one house against the other by supporting the Assembly version of a piece of legislation or block the Assembly by having a contrary measure passed in the Senate. In addition, legislation may be "passed" by declaration which is subject only to the unlikely event of the opposition coming up with a majority to overturn it (Berger (1974), pp. 44-49; Hanley et al (1984) pp. 117, 124-7; Hayward (1983), pp. 83-93).

To these reasons two other explanations for the politicization of bureaucratic politics may be added. First, the interpenetration of legislative and executive spheres is very pronounced in France and a remarkable number of people serve simultaneously as legislators and administrators. Second, the state controls very substantial portions of the national economy. Thus, decisions on such matters as investments and layoffs are made by the state and as a consequence are subject to political pressures.

The simultaneous occupancy of bureaucratic and legislative roles by the same individual, "legally inadmissible in other Western countries, is sanctioned by law in France" (Suleiman, in Hoffman (1981, p. 80)). More than a quarter of the deputies elected in 1976 were civil servants (125 out of 480), an interweaving of roles that is not just tolerated but encouraged. No matter what the electoral outcome they keep their posts, to which they may always return. The highly visible success these administrative elites have had in politics (two of Mitterrand's five Socialist prime ministers came into politics from the highest echelons of the civil service) of course provokes even more to use this path to power. According to both Suleiman (1981) and Ashford (1982) this system is quite resistant to reform because all political parties benefit from it. Among its consequences are the virtual impossibility of genuine decentralization, which members of the *grands corps* view as an attack on their power.

Finally, administrative decision-making and political conflict are linked by the economic decisions administrative agencies render that have inherently political consequences. Since the immediate post-war era in which Renault, Air France, the coal mines, gas and electricity, and the largest banks and insurance companies came under state control the state-controlled sector of the economy has continued to grow. What in 1950 amounted to 300 nationalized firms responsible for 5% of gross business receipts had expanded to 800 firms doing 11% of turnover by 1975 (Hayward

(1983) p. 224). The nationalizations conducted by the Socialists upon coming to power in 1981 doubled the state's share of industrial production from 15 to over 30%, which was only partially reversed by the privatizations conducted by Chirac when he served as prime minister from 1986 to 1988 (Ardagh (1987), p. 43). The degree of managerial independence of these enterprises varies, with administrative direction particularly acute in cases of industries whose profitability is in trouble.

In conclusion, the prestige of administrators, the constitutional limitation on legislative powers, the ability of the administrative elite to capture political power, and the percentage of industrial output subject to administrative influence (due to the large number of businesses under public ownership) all yield an administrative apparatus that is highly politicized. And not only are they crucial locations for decision-making and highly engaged public communicators, virtually all administrative agencies have at least one telematic service.

B. Telematics and Administration

Table 12 lists the 69 administrative telematic services in existence in the Spring of 1992. They defy summary, since they range from some that are not open to the public, to others, such as the online guide to telematic services called Minitel Guide to Services or MGS and the *Annuaire Electronique* or Electronic Telephone Directory, that are the most heavily used telematic services on Teletel.

Table 12

National Administrative Telematic Services

<u>access</u>	<u>service code</u>	<u>service provider</u>
3615	ABCDOC	financed by Ministère de l'éducation (managed by la Documentation française)
3616	ADMITEL	Documentation Française
11/3614	AE	Annuaire Electronique--France Telecom
3615	AFME	Agence Française pour la Maitrise de l'Énergie
3613	AN	Assemblée Nationale (limited access)

Table 12 (continued)

National Administrative Telematic Services

<u>access</u>	<u>service code</u>	<u>service provider</u>
3615	ANPE	Agence nationale pour l'emploi
3615	ARMEE	Ministère de la défense--service national
3615	ARMEEAIR	Ministère de la défense
3615	ARTS	Ministère de la culture et de la communication
3615	CAF	Caisse nationale des allocations familiales
3615	CIVIC	Ministère de l'intérieur
3614	CJN	Ministère de la justice--Casier judiciaire national
3615	CNAP	Ministère de la culuture et de la communication (Centre national des arts plastiques)
3614	CNED	Centre national d'enseignement à distance
3615	CNIL	Commission nationale de l'informatique et libertés
3614	CNRS	Centre national de la recherche scientifique
3615	COLOG	Ministère de l'intérieur (Collectivités locales)
3614	CONSOM	Ministère de l'économie et des finances
3615	COOP	Ministère de la coopération
3615	CSPSC	Ministère de la défense (Commission de sélection du personnel scientifique du contingent)
3615/3616	DOCTEL	Documentation française
3614	EDUTEL	Ministère de l'éducation nationale
3615	EDUTELPLUS	Ministère de l'éducation nationale
3615	EMPLOI	Ministère du travail de l'emploi et de la formation
3614	ENSUP	Ministère de l'éducation nationale
3614	ENVIR	Ministère de l'environnement
3613	ESUP	Ministère de l'éducation nationale (limited access)
3616	EUROGUIDE	Ministère des affaires européennes
3615	FINONCES	Ministère des Finances
3616	FONCTIONNAIRE	Direction générale de la Fonction publique
3614	GENDARME	Ministère de la défense--Gendarmerie
3614	IDEAL	Ministère de la recherche; Ministère de la santé
3615	INC	Institut national de la consommation
3615	INFFO	Centre Inffo (professional training)
3615	INPI	Institut national de la propriété industrielle
3616	INRIA	Institut national de la recherche en informatique et en automatique
3616	INSEE	Institut national de la statistique et des études économiques
3615	IRSERVICE	Ministère de l'économie et des finances
3617	JOELECO	Journaux officiels

Table 12 (continued)

National Administrative Telematic Services

<u>access</u>	<u>service code</u>	<u>service provider</u>
3616	JOEL	Journaux officiels
3615	JS	Ministère de la jeunesse et des sports
3615	JUSTICE	Ministère de la justice
3614	LAPOSTE	La Poste
3614	MAGNUC	Ministère de l'industrie
3614	MASE	Ministère des Affaires Sociales et de l'intégration
3615	METEO	Ministère de l'équipement--Météo France
3614/5/6	MGS	Minitel Guide des Services--France Telecom
3614	MISASOL	Ministère des affaires sociales
3614	MRT	Ministère de la recherche et de la technologie
3616	OEST	Observatoire économique et statistique des transports
3615	ONISEP	Office Nationale d'Information sur les Enseignements et Professions
3614	REAG	trafic information
3615	RETRAITEL	Caisse nationale d'assurance vieillesse
3615	ROUTE	Secrétariat d'Etat aux transport routiers et fluviaux
3615	SCRIP	Directory of fax numbers--France Telecom
3615	SECSOC	Sécurité sociale
3614	SEJUS	Secrétariat d'Etat à la jeunesse et aux sports
3615	SERAFIN	Ministère de l'économie et des finances
3616	SICI	Ministère de la culture et de la communication (Service d'information des créateurs et interprètes)
3615	SIRPA	Ministère de la defense--Service d'information et de relations publiques des armées
3616	SITTE	Ministère du tourisme
3614	TATOU	Ministère des postes et des télécommunications
3616	TEDIC	Ministère de l'équipement
3615	TERRE	Ministère de la défense
3616	TRESOR	Trésor public
3614	UGAP	Union des groupements d'achats publics
3615	ULYSSE	Agence nationale pour l'emploi
3615	URBA	Ministère de l'équipement et du logement
3615	VOSDROITS	Documentation française

Sources: "*Principaux Services Télématiques des Administrations et Etablissements Publiques*," Documentation française, no date, and MGS

Those selected for detailed analysis are the oldest (the services of *La Documentation française*), those with the largest audience (the Ministry of Education's service and the Ministry of Post and Telecommunication's internal service)⁴, the only legislative service (for the *Assemblée Nationale*), and several high profile services (an environmental and an energy-oriented service and the leading services of the Defense Ministry). Table 13 lists the national administrative services selected for detailed analysis. These were selected because of the importance of the agencies offering them and due to their representativeness of services in this sector.

Table 13

National Administrative Telematic Services Analyzed

<u>Organization</u>	<u>Service Names</u>	<u>Operating 1992?</u>
<i>La Documentation Française</i>	VosDroits, ABCDOC, DOCTEL, Admitel	Y
Ministry of Education	Edutel, Edutelplus	Y
France Telecom	ContactPTT, Tatou	Y
<i>Assemblée Nationale</i>	AN (controlled access)	Y
<i>Service d'Information et de Relations Publiques</i>	Armée, SIRPA	Y
Environmental and Health Ministries	Ideal	Y
<i>Agence Française pour la Maitrise de l'Energie</i>	AFME	Y

⁴ MGS and the Electronic Directory serve more people but they are pure databases, meaning they do not offer the possibility of any human-to-human interaction.

1. Origins of Administrative Telematics: VosDroits, ABCDOC, DOCTEL, and Admitel

La Documentation Française has inherited responsibility for what are the oldest administrative telematic services, those that grew out of the original telematic experiments at Vélizy. They were begun, as Françoise Trapon of *La Documentation Française*, points out, "because France Telecom wanted to increase the supply of telematic services" (personal interview, March 1992). The conditions of their operation are quite unfavorable, meaning keeping them updated requires considerable expense and they spend almost nothing on advertising and hence are virtually unknown. None allow for any messaging of any kind, even a way of leaving a suggestion for how they might be improved.

VosDroits ("your rights") is both the newest and oldest of *La Documentation Française's* telematic services. While it traces its origins to the early 1980s, its current version is the most up-to-date of the services of *La Documentation Française*, having opened in 1990. In 1983 a very large team of about twenty people was created by the *Centre d'Etudes des Systèmes d'Information des Administrations* (CESIA) to build a database on rights and administrative procedures for the *Service d'Information et de Diffusion* (SID), the national government's internal communications agency. The result of their labors was a database that was offered to local and regional governments on magnetic tape so they could incorporate it into their own services. They were required to place their service on 3613 or 3614 and had only to fill in the screens reserved for local addresses, a small number of the more than 8K the database contained.

However, only about 25 local and regional governmental services took the database. Due to this, and because all of the information on it was essentially national, the majority of the team of people responsible for it were transferred to *La*

Documentation Française at the end of 1989 and it has been turned into the service VosDroits, available on 3615. It is also available to users of the certain municipal services that connect users to it by rerouting their call. After they are finished they are returned to the municipal service to which they made their original connection. However, the rerouting only works for services on the same access number, thus local governmental services on 3614 cannot be rerouted to VosDroits. It is averaging about 7,000 monthly calls for 650 hours/month. Its operating budget is 360 KF/year, most of which goes to the service bureau (25 KF monthly for a total of 300 KF). It has five full time people working on it. In 1991 it generated an income of 126 KF for *La Documentation Française*, meaning it had 4,200 hours that came after meeting its monthly minimum of 750 hours and for which it received a return of 30 F.

ABCDoc is a telematic version of a database on archives and centers of documentation, of which *La Documentation Française* is but one. Financed by the Ministry of Education, it has been available on Minitel since 1985. It generates about 1500 calls a month for 150 connect hours.

DOCTEL was created in 1985 out of a bibliographic database called the *Banque d'Information Politique et Actualité*, which predated Minitel. It has two distinct elements. The first is basic political data such as the composition of the government, the organizational charts of the principal unions and political parties, and a résumé of political and governmental news drawn from the press. It also offers a catalogue of documents for sale by *La Documentation Française*, which can be ordered online. In 1991, the service received an average of 2,000 calls/month for 196 hours.

Admitel was started at the end of 1989. It is the online version of the administrative telephone book that sells about 6K to 7K copies annually. It receives about 2,700 calls/month for about 200 connect hours. Its clientele are businesses and

organizations concerned with government relations. It has been placed on 3616, says Trapon, "because so many large businesses have blocked 3615," meaning they have made it impossible to dial the number 3615 to prevent their employees running up the company's telephone bill by amusing themselves with Minitel.

Other than being listed in MGS and other telematic directories little is done to make these services known to the public. Even their design is old and out-of-date. The best of them, VosDroits, allows only navigation by branching and not by keywords. This means that the information being sought may be on the system but is buried under several layers of branching, although a new generation of the service is under construction. All these services are strictly unidirectional.

2. Protecting Administrative Hyper-centralization: Edutel and Edutelplus

If it seems unfair to measure the administrative services of *La Documentation Française* with a yardstick that judges their level of interactivity, the objection doesn't hold in the case of the Ministry of Education. Since the break up of the Soviet Army it can now claim to be the largest organization in the world. With 1.3M employees (all teachers in France are paid by the national government) and the largest budget of any ministry (a fifth of the total national budget) it is an enormous enterprise that has twice doubled in size since 1956 (Hanley et al (1984), p. 262; Ashford (1982), p. 69). It is "an educational structure that is more centralized than those found in other Western democracies" (Ambler (1991) p. 193). It also has a long history of involvement with telematics, which rather than serving as a tool of decentralization has helped the tremendously centralized administrative apparatus to survive.

Two education-related telematic services grew out of the experiments at Vélizy. Both the *Office Nationale d'Information sur les Enseignements et Professions* (ONISEP) and the *Direction des Enseignement Supérieur* (DESUP) created databases for Vélizy. ONISEP's was concerned with information on opportunities for study,

professional training programs, and the diplomas necessary to follow a particular career path and after Vélizy became 3614 ONISEP. In the late 1980s it became 3615 ONISEP and today offers access to a very broad database concerning educational opportunities at all levels. The DESUP database became 3614 ENSUP and is focused upon higher education: diplomas, where they are offered, what the entry requirements are, etc.

In 1986, the Ministry of Education began to create a telematic service for itself that would be called Edutel. According to Dennis Loche, who worked on ENSUP since its origin and now is responsible for Edutel, it had three objectives: to provide information of interest to its employees (such as the results of competitive examinations for progression along a career path), "to permit people to communicate among themselves," and to provide an orientation on the public education system for students and their parents (personal interview, April 1992). This latter goal, Loche points out, concerns 30M people or about half the nation. It was begun in 1987 on 3613 and moved to 3614 in 1989. Currently Edutel contains most personnel-related services (which are to move to a new service on 3614 code Edunat) and the elements geared for the public at large. Edutelplus contains the results of job placement examinations and the annual *mutation*, or job transfers that allow teachers to change schools.

A group of four people (plus one part time) work at the Ministry on these three services, which together have an annual operating budget of 13.8 MF (not including their salaries). This budget has increased from 8 MF in 1987 to 10 MF in 1988 and reached its current level in 1989 and has been stable since then.

Edutel and Edutelplus received about 417M calls/month for 25M monthly connect hours in 1991 and generated revenues of about 4 MF. The results of the *mutation* and job placement examinations represent between 40% and 50% of all

connections, with messaging being the second most important application. About 8K of the Education Department's 40K administrative personnel have electronic mailboxes and can participate in conferencing as well as send private messages to individuals.

The services have been used for internal communication in one of two ways. To prepare for a meeting with the 3,000 heads of the *lycées* (high schools), questions were solicited online for the Minister, who responded to the questions at the conference. During a period of several months, the service accepted questions from teachers regarding a new method of tracking students (selecting some for more advanced study). About 2,000 questions were generated in three months, which were answered individually online. Twenty of these question and response operations were conducted in 1991. "We assume responsibility," says Loche, "that they are responded to by the proper people in the Ministry." While major problems are solved by official channels, "Minitel allows the official information system to be short circuited."

The second internal application involves far more people. Edutel, Loche admits, was "created in response to the SNES service," since the conservative Minister of Education from 1986 to 1988 "objected that the union was running a service that we should have been running."⁵ SNES had been distributing unofficial results of the *mutation* that were in reality the permanent results, which enhanced its power at the Ministry's expense.

Since 1989, teachers wishing to participate in the *mutation* have filled out their dossiers on Minitel in each of the *academies* (the Education Ministry's equivalent of regions). "No, it isn't obligatory," says Loche. "It is strongly advised because it is much faster. Dossiers can be looked at and edited right up to the deadline, but you can still do it on paper if you want to." It would not be legal in France make it

⁵ The telematic activities of the *Syndicat National des Enseignements de Second Degré* are discussed in the next chapter.

obligatory. He reports that "very, very few arrive by paper," which are then entered into the database via a Minitel.

Telematics "holds the management of the Education Ministry together," says Loche. "If it was removed tomorrow the Ministry would fall apart...I am convinced that without Minitel the internal information system of the Ministry could not function." Since between 200K and 300K people participate in the *mutation* each year, "if this wasn't automated from the point of data entry it would require a huge amount of time." As another example, Loche says the letters assigning teachers to schools (as a result of the *mutation*) can arrive as late as the first day of school, while the information is available on Minitel months beforehand.

Whether this is beneficial or not is unclear. As Loche points out:

Telematics has made it possible not to change the hyper-centralization of the Ministry. Without it we'd have been forced to come up with a more decentralized system. From the point of view of telematics it is very positive because it is very useful. But from a political point of view it has allowed the conservation of the existing system.

Thus for France's largest administrative agency telematics has been not simply without effect upon decentralization but has become a tool by which decentralization may be successfully resisted. In this case, Minitel is so far from the Nora/Minc report's goal of "adaptability, initiative, and participation" as to be unrecognizable.

3. Organizational Communication Online: Tatou

Another national agency that should be fertile ground for the development of telematics is the Post and Telecommunications Ministry. First, because of its size. It has 450K employees, to which if one adds family members and retired people the number touched by its activities reaches 1M.⁶ Second, because it is the agency

⁶ This includes France Telecom. Although now private, legally speaking, the change in status has come with very marginal (almost inconsequential) operational changes.

promoting Minitel, which is both an example and the leading symbol of the agency's effort to modernize itself and the services it offers. As a result it is reasonable to believe that its employees have a higher-than-average familiarity with telematics. Yet, the Ministry's telematic applications have followed a trajectory that is similar to that of other organizations in that its current usage is considerably different than that which was first offered. The current application serves a number of aspects of the life of this "community," including in small measure the participation of employees in the reform of the agency.

The involvement of the Post, Telegraph and Telecommunications authority (PTT) in telematics was "born of a bad idea," says Alain Delmestre, who is responsible for telematics and internal communications (personal interview, March 1992). The PTT's original motivation was to "show that we can do Minitel too since we were heavily promoting it." In 1983 it opened a database for journalists called ContactPTT that "didn't work very well at all." Delmestre says those for whom it was designed were generally opposed to telematics (this was before the *rapprochement* of newspaper publishers and the PTT), didn't understand how to use it, didn't have Minitels, and were looking for comments and unofficial information rather than data. "It was an unsurprising failure," according to Delmestre.

Minitels began to appear, however, within the Ministry itself and the service, which was geared to the exterior, was actually used by those inside the agency. Particularly sought after was information on the *concours*, or examinations necessary for rising to a higher grade and salary. The service contained information on the *concours* open to people outside the agency but not those open only to those within it. Following demand, Delmestre says "we let the external part deteriorate" and worked instead on the information for an internal audience.

In 1988 the service was reborn as Tatou, available on 3614, while the parts of the service oriented to the exterior went by the code PTT (also on 3614). Tatou means armadillo, an animal not native to France. "We didn't want PTT in the name and were looking for something that provoked an image," explains Delmestre.

Six people work on the service including Delmestre, who is also partly responsible for the internal PTT magazine Messages. The service is budgeted at 4.5 MF/year, not including salaries, and is hosted by a service bureau. Its goal is "to create and reinforce the pride employees have in the agency." It provides a vast array of services including news of information to employees, classified advertisements, and the reservation of places at the theater and at PTT-owned vacation facilities. In particular, the service works closely with internal associations. The agency "has a very, very rich associative life," Delmestre says, with 230K adherents. The sports association and the *Mutuel* (insurance agency for employees) manage their own parts of the service, with the *Mutuel* alone accounting for 2K to 8K calls/month. The "personal life" elements of the service account for about half of all usage, according to Delmestre. Usage in 1991 amounted to 3.7M calls for 280K connect hours (in monthly averages: 308K calls for 23K hours), which was somewhat less than 1990's record of 3.8M calls for 350K connect hours.

The most popular single application is the results of the *concours*, which accounts for about a fifth of annual usage. Until placed on the telematic service results were distributed by mail, and "many people knew the results ahead of others because they had contacts somewhere in the agency." This provided them with an advantage because the results of the written part determine who is qualified for an oral examination. As many as 20K people can be involved, or in the case of a *concours* open to people outside the PTT as many as 120K.

Usage was especially high in 1990 because users of Tatou were able to send messages to the head of a commission appointed by the Minister to propose reforms of the agency. In the four months that this was available 70K messages were sent. Although messages could be sent unsigned by employees afraid of retribution for making critical comments, Delmestre reports that most of these were signed. In addition to messaging, 35K requests for the final report were made by Minitel.

The service has never offered individual electronic mailboxes, but users can leave comments for the operators of Tatou. Electronic mailboxes are set up temporarily when people are working together on some common project. "We can't allow the *messagerie rose* kind of usage. We're the PTT and we have an image to protect." Some experimentation has also been conducted with real time teleconferencing with, for example, an author (set up by a literary club within the agency) or with a professor of medicine. About ten of these live forums have been held, averaging about 50 questions each time. "It plays a very small role in the service," says Delmestre. Other real time experiments have included about five internal videoconferences that allowed viewers to question the participants via Tatou. Of Minitel's unique attributes as a medium, Delmestre says interactivity is not the most important but comes after its real time capabilities and the ease with which non-computer users can make calculations.

Tatou's organizational impact has grown with its usage:

For a number of years our superiors ignored us. It was just a gadget, presented as a symbol of modernity, but mostly ignored. It is only when people saw the increase in its usage, in 1988-89, that it became a medium.

Tatou's status as an internal medium is also confirmed by its budget, which is a quarter of the amount spent on the PTT's monthly magazine. Yet, like the magazine, it is a well-regulated and controlled medium that is not designed to serve conflict,

dissention, or dispute. While associations have their place on Tatou, labor unions do not, nor is it possible for similarly aggrieved individuals within the organization to find one another, to post a complaint that all could see and respond to. So although Tatou is a telematic application that can be called successful, the medium's interactive capabilities are, in this case as well, still very marginal.

4. Greater Focus but Fewer Users: *l'Assemblée Nationale*

The National Assembly's service traces its origins to the same critical time period in which French telematics was brought to life: the end of 1982, just after the field trials at Vélizy. When it was begun the service was far more extensive than it is currently, since with time the creation of more specialized telematic services by individual agencies has freed it from having to, for example, maintain a database on economic statistics. And while the service still offers electronic mail its usage has been reduced to virtually nothing.

It was created as a means by which any Assembly member or his or her staff could follow the legislature's day-to-day business from anywhere in France. It contains the daily agenda, including meetings of political groups, commissions, and study groups, and both the written and oral questions posed the government by Assembly members. The oral questions (about 8K annually) are summarized on the telematic service, and references are give to the pages in the *Journal Officiel* where the responses may be found. The membership of various legislative bodies, biographical data on deputies and senators, and a number of different texts and publications are available, including budgetary data and economic and social statistics.

The service is strictly internal, available on 3613 (code AN) to users with passwords. Thus, while it takes advantage of Minitel's wide distribution it is little different than an internal database common in thousands of organizations. The Assembly members (557) have staffs of four on average, so if one adds the staff of

the political groupings and the Assembly itself it is a community of about 3,000. The service averaged 344 calls/month in 1990 and fell to 260 in 1991. The average length of consultation is very high (30 minutes), as is typical for a database. Although messaging is available, the service's usage statistics show how little used it is. The messaging service's 134 average monthly consultations in 1990 (not the number of messages sent, which would be significantly lower than this) fell to 41 in 1991 and averaged 24 in the first two months of 1992. Yves de Lestang, the director of the Assembly's computer services department, says it is "very little used, almost not at all and less and less. They really don't look at it. If there was a red light attached to [the Minitel], then maybe" (personal interview, April 1992).

"We're looking at audiotex," he says, "since there are telephones everywhere." The individual Assembly members wishing to exploit telematics as a means of liaison with their constituencies have done so in other ways.⁷ In summary, the *Assemblée Nationale* appears to be virtually untouched by the introduction of mass scale telematics.

5. Other Administrative Services: "Answering that...is not my job"

Four more examples will round out a review of telematic services created by agencies of the national government, two built by the military, one concerned with energy, and a final example dealing with the environment. All are hosted by private service bureaus.

⁷ The vast majority have done so with their municipal telematic services in their roles as mayors, or with *Démocratie Directe*, as discussed in the chapter on electoral telematics.

The *Service d'Information et de Relations Publiques des Armées* (SIRPA) has participated in telematics since Vélizy, but has had its own two services since 1988.⁸ A service called *Armée* (about 500 screen pages) is concerned with the period of national service required of all male French citizens, while a service called *SIRPA* (about 300 screen pages) presents statistics and daily news on defense-related issues. The most popular elements of *Armée* deal with the age at which one signs up, and give the address of the office to contact locally. More than 20 questions a day (8,000 a year) are delivered to about twenty National Service Bureaus, which are responsible for answering the questions delivered to them in this way. In addition, about 5-6 brochures on National Service are requested by Minitel each day. On SIRPA an online suggestion box gets about 15-20 comments a week. No responses are given. Its highest usage come in the summer when it is used to deliver the results of the competition for entry into the military school Saint-Cyr. This produces 10K calls.

Both services together got 129K calls in 1991 (85K for *Armée* and 44K for SIRPA) for 9,700 total connect hours (7,400 and 2,300, respectively).⁹ The services cost 400 KF to launch and generate about 150 KF for SIRPA annually. Although paid advertising is minimal (70 KF to 80 KF a year) when SIRPA officials mention the service as part of radio or television interviews there is "an incredible impact that lasts a few weeks. We easily get five or six times normal consultations" (Gabriel Canella, personal interview, March 1992).

⁸ Each of the individual branches of the military and the national police force have their own services (four) as do agencies responsible for weapons production, military cooperation with other countries, and for finding national service assignments for people with scientific and technical training.

⁹ In monthly averages: 7,083 calls for *Armée* for 617 hours and 3,666 calls for Sirpa for 192 connect hours.

Both services received a massive number of calls at the start of the Gulf War. Armée got almost 10K calls in January 1991, or almost twice as many as the previous January. Callers selecting a subject heading concerned with the Gulf War were rerouted to SIRPA, on which all official communications concerning the war were distributed. Information included the daily briefing, official communiqués, and a presentation of all the equipment the French military had in place. It received 5K calls in January 1991 and another 5K in February, compared with 741 the previous January and 800 the previous February. "We tried to hook up our host computer to the computer in Riyadh," says Lt. Colonel Gabriel Canella, who is responsible for the service, "but we were not able to do it in time. There was also a cost problem."

Ideal is a telematic service that grew from a database called Ecothek. Supported by funds from the Ministries of Environment and of Health, since 1986 the service has been the most important telematic source of information on the environment. It includes measurements of water quality, regulations on noise pollution, and access to the Ecothek database (150K documents on city planning, pollution, etc.) About fifty *départements* also use a non-public part of the service to exchange information on the environmentally-related studies they have conducted. About 2,000 questions have been posed on this service, with 40K listed responses. The service costs 2.5 MF annually plus the labor of nine full time people. It generated 250K calls in 1991 for 18K connect hours (averaging 20K calls monthly for 1,500 hours).

An element of the service in which specialists were to respond to questions related to "quality of life" was shut down in early 1992. "Very few questions were posed...less than five messages a week," according to Alain DuBois, who is responsible for the service (personal interview, April 1992). "We had trouble getting the experts to respond to them. The idea was good, but we couldn't get them to look at Minitel and answer...After they've looked for three days and they have no

messages they don't look any more." DuBois says they never attempted to take the questions off the system and call the experts for a response. "If we were going to do that we could establish a *numéro vert*" (a toll free telephone hotline). There is currently no means by which callers may leave a message.

Finally, the *Agence Française pour la Maitrise de l'Energie* is of interest because it has the only telematic service that has been linked to an public information campaign aided by the *Service d'Information et de Diffusion* (SID), the official agency for governmental communication, attached to the prime minister's office. The service (code AFME) was created in 1988.¹⁰ "The principal objective," says Serge Robin, who created it for AFME, "was to use a modern product, that was how we saw it, to distribute information that allowed us to place personal calculation tools at the disposition of the public" (personal interview, April 1992). Although it includes programs with which the energy efficiency of a home or automobile may be calculated, by far the most frequently consulted part of the service is that which allows a caller to request a brochure, ask a question, or seek an address.

The service's 1992 budget is 700 KF, which is about 0.15% of its parent organization's budget (1.4% of its communications budget). Its funding comes from the Industry, Research, and Environment ministries. In 1991 it generated 52K calls for 5,430 connect hours (monthly averages: 4,333 calls for 452 hours). This represents an increase of 27% in number of calls from 1990, the year that AFME's efforts were part of an official publicity campaign. Usage is highly variable depending upon the presence or absence of an advertising campaign or other form of publicity. Television and radio advertisements and an interview on *France Radio*, for

¹⁰ In 1991 the agency was combined with two others and its name changed to the *Agence de l'Environnement et de la Maitrise de l'Energy* (ADEME). The name of the telematic service was to be changed in 1992.

example, caused the number of calls to the service to increase by a factor of five in January 1991 by comparison with the previous January (connect hours increased by a factor of three).

"People pose a lot of questions," says Robin. He answers about ten daily, a number that is continually increasing.

People often pose questions that are outside of our domain of activity and we try to explain that to them, but we always respond. If we get questions like why do we get so much of our electricity from nuclear power, for example, we tell them to ask the EDF (the French electric power agency). I know the answer, of course, but answering that kind of question is not my job.

Responses are given by letter since some are long and because it allows a brochure to be mailed at the same time.

These services primarily allow callers to answer their own questions, with messaging being a minor part of overall usage. Armée handles quite a few information inquiries, but it has an audience that is forced by law to be concerned with the content it offers. Ideal has given up answering questions, and although AFME continues to do so it is clear that anything that is not purely administrative, that can not be handled by the mailing of a published brochure, has no place. This may be interactivity, but it isn't interaction.

To briefly summarize the administrative telematic services, in all cases they affirm the power of the agency to control its relationship with its clients. In no cases are either the collective or individual positions of those confronting the agency enhanced. In terms of interactivity, that which exists is for internal purposes, not for the public at large but for the agency's clients. And as the case of the Education Ministry shows best, interactive capacities are more important in the role they play supporting centralized administration than as an agent of decentralization.

II. Local and Regional Governments: Meeting Citizens Online

In relations between center and periphery France presents an image in stark contrast to that of the United States. While American regional governments created the national government, reserving for themselves powers not explicitly expressed in the constitution, in France local and regional authorities were built as administrative conveniences by central authorities, which have ceded only strictly limited functions to local authorities while keeping tight control over finances and key areas of public policy. The vast number of tiny governmental units has also limited their authority, while their role as power bases for a large number of politicians who, through the system of *cumul des mandats*, serve simultaneously as local mayors and deputies in the National Assembly, render these arrangements highly resistant to reform. Governmental units at the regional level have only very recently been invested with any real authority, although they too are strictly limited by the national government in the powers they may exercise and in their revenue-generating activities. As a consequence, both are very limited in their capacity for innovation and as locations for open political conflict involving citizens.

As Mazey writes (1989, p. 42), since 1958 reform of local governments "has rarely been absent from the political agenda." The essential structures of local governments have been virtually unchanged since the Napoleonic era, carrying into the modern era, as Machin says (1980, p. 128), "the rural, backward, agricultural France of 1800." There are 96 *départements* (roughly equivalent to counties in the British or American systems) each of which is divided into *arrondissements*, which are further divided into *cantons*. Neither of these latter two have elected officials or provide services. Public authority is exercised by the *départements*, by the regional governments (which group together a number of *départements*) and the lowest level and smallest political jurisdiction, the *communes*.

A. Municipalities and their Mayors: The Localest Politics

Despite a parliamentary act in 1971 to encourage consolidations, France continues to have more than 36,000 local communes, which gives it more local governmental units than all of the countries of the EEC combined (Largroy and Wright (1979), p. 5). Total membership of local councils surpasses 460,000, representing almost 1% of the total population and just under 2% of the electorate (Hayward (1983), p. 26). These basic units vary widely in size from no inhabitants to a million or more. In 1975, 22,700 of them had fewer than 500 inhabitants containing 9% of the population (Machin (1980), p. 132). Fewer than 2000 people reside in 90% of the communes, which account for 25% of the population, while the top 39 communes of more than 100,000 inhabitants include half of the population (Ashford (1982), p. 112).

Local councils have been elected by popular vote since the laws of 1871 and 1884, yet their members have little power in the management of the commune's affairs except in the largest cities. Their members are "mainly leisured notables who regard their election as a recognition of social status and economic success" (Hayward (1983), p. 39). Power resides with the mayor, who is the leading candidate of his or her list in municipal elections and who generally uses his or her council as a tool for validating his or her policy initiatives. "It is expected," as Hayward writes, "that the council will give symbolic support to decisions already reached as a way of enhancing the mayor's bargaining power with agents of central authority" (p. 39). Individual councilors "do little except attend the annual budget debates," (Machin p. 131) which is virtually the only time they exercise any influence over policy.

While, as Hayward (1983, p. 40), writes, "the mayor's capacity to innovate is greater than that of any elected person other than the president of the republic," in fact

he seldom does innovate because he places the harmony of the community above all other purposes and fears that change will be disruptive. His leadership is therefore passive in character, except in the larger towns where developments beyond his control compel him to sponsor innovation.

In terms of their duties, municipalities have little control over outlays for social welfare or education, but play a key role in infrastructural development. About two-thirds of public investment is done by local governments, far more than in other European countries (Ashford (1982), p. 112). They are heavily dependent, however, on state-run institutions such as the *Caisse des Dépôts et Consignations*, which is controlled by the Ministry of Finance.

In contrast with local governments in other Western nations, French municipalities spend heavily on communications, producing publications and controlling other forms of local publicity. A survey of 46 municipalities (results were published both in Simon (1990) and Charon and Simon (1991)) found that all of them published *journaux municipaux*, which are generally monthly or occasional publications, usually of high quality, that often serve as important local advertising vehicles, not the least of which for the mayor and the party in power locally. Although of widely varying sizes, the Simon and Charon study found municipalities to have an average communications budget of 7.3 MF, which made up half a percent of the city budget. The overwhelming majority of the cities (35) had between 5 and 19 employees working in their communications services. A similar study reports 21 of 23 local governments with *journaux municipaux*, and cites a poll in which 65% of the respondents felt that their municipality communicated very well or rather well (Filliol (1988), p. 7). This is an accepted municipal activity. As the mayor of Montpellier has said, the city itself with its four publications and its 17-18 MF budget is the leading local communicator. "This is part of the role of a mayor today" (quoted in LeNet (1989), p. 47).

The tight reigns held by the state on revenues is a key reason for the political weakness of the local governments. The national government takes in 83% of tax revenues, and there are few means of increasing local taxation because there are no local revenue streams that a locality has access to other than property transactions (Cathelineau in Lagroye and Wright (1979), p. 193). A 1967 study of public expenditures shows a distribution of French public expenditures to be roughly the inverse of the case in the United States: while the American central government accounted for a third of nonmilitary public expenditures the French national government made three-quarters of all public outlays (quoted in Berger (1974), p. 133). This balance may have changed marginally through the development of regional governments, discussed below, but it has not been radically altered.¹¹ It does not appear that ideological differences result in significantly different levels of local taxation, although Communist-controlled municipalities spend their money somewhat differently: more on education and educational support (enrichment of curriculum in music, sports, and other activities) and less on road repairs, lighting, street cleaning, and parking garages (Schain (1980), p. 246-7).

When they perform functions, such as the adoption of land use plans called *plans d'occupation des sols*, which require public input, the results are generally disappointing. According to Sorbets (in Lagroye and Wright (1979), p. 163)

what is common to all urban planning projects is the systematic absence of the population. When provision for consultation with the population is made...it generally fails, either as a result of the atomization of urban existence or because organized local opposition groups are insufficiently strong.

¹¹ Ashford (1982) reports that in 1977 the French communes accounted for a fourth of all public spending but doesn't report spending at the departmental or regional levels.

Although the organization of interest groups at the local level has shown some increase, as discussed in the next chapter, few pressure groups seek to influence decision-making at the level of the municipality. A large majority of citizens (65% in the poll cited in the *Fondation pour la Communication Locale* study, Filliol 1988) believe that are only weakly able to express themselves on the conduct of municipal affairs.

In part, as discussed below, this is understandable when key decisions regarding local life seem to be made elsewhere. In general, one can conclude that the sheer number of municipalities, their limited functions, and drastically limited revenues account for their relative powerlessness. And, most importantly, the system by which Paris has governed the nation since the Napoleonic era--by dispatching ENA graduates to the *départements* to serve as prefects, the local representatives of state authority--seriously compromises local initiative.

B. Reform of Intergovernmental Relations: Départements and Regions

Each *département* has a legislature called a *conseil général* comprised of one representative per *canton*. Although it has had an elected president, historically executive power was held by the prefect, appointed by the Minister of Interior, who controlled its budget, agenda, and the implementation of its decisions. The prefects had considerable power over mayors of cantons in their *départements* as well, having the power to veto their decisions and even dismiss them from office.

Proposed reforms to this system are one of the most frequently occurring themes in French politics, with no less than 34 raised during the 3rd Republic (Ashford (1982), p. 114). Although a number of reform efforts were enacted from 1950 to 1975, Thoenig (1979), p. 79) calls them "a disparate catalogue of varied and limited acts of intervention with no particular coherence." However, the election of the Socialist government in 1981 led to major reforms in this area, which they

recognized as "the most important of their innovations for reshaping French society, more so than the nationalization of key industries" (Ardagh (1987), p 182).

The reform of intergovernmental relations--the liberation of the communes from some of the more heavy-handed means of control by the prefects and the elevation of the region as a full-fledged level of government--has its roots in the creation of the regions as administrative jurisdictions in 1956. They were given official identity in 1964 when the creation of the *Délégation à l'aménagement du territoire et à l'action régionale* or DATAR to promote the deconcentration of industry from the Paris region invested regional prefects with responsibility for regional development. The departmental prefect that had the regional capital was to double as the regional prefect.

DeGaulle's principle programmatic reaction to the events of 1968 (besides dissolving the legislature) was a proposal to elevate the region into a constitutionally-recognized governmental unit with its own financial resources. Yet, this proposal, which was coupled with reform of the Senate, was defeated by an alliance of the left (opposed to DeGaulle and dubious about the relationship between this reform and the opportunities for participation it was supposed to lead to) and the right (local notables opposed to what they saw as an attack on their principle institutional bases of power).

Whatever the merits, the event shows how closely tied the decentralization of governmental authority and demands for political participation had become. Yet, in this proposal the two seemed to be merely rhetorically linked:

...it became clear that behind the rush of propagandist rhetoric about promoting "popular participation" "direct democracy", decentralization and autonomy, the prefects were not only to remain in charge; they were to be buttressed with powers deconcentrated from a megaloccephalic administrative system that had proved in the crisis to have attained the pathological condition of paralysis at the center and apoplexy at the periphery. The real aim of Gaullist neo-regionalism was to constitute a deconcentrated administrative system under the

regional prefect that would be more capable for recognizing, resisting and reducing revolutionary discontents (Hayward (1983), p. 50).

Thus what was called decentralization was in fact a reinforcement of central control.

In 1972 the regions did receive greater powers, although far less than what had been proposed in 1969. The regions remained administrative rather than political units with prefects still solidly in control. Regional councils were formed of all the deputies and senators of a region balanced by an equal number of representatives of local authorities. Driving license revenues were ceded by the state to the region to serve as their source of income.

Despite two important government reports on the subject and substantial parliamentary consideration, few reforms were made during the Giscard presidency, which was heavily dependent upon local *notables* for its narrow base of parliamentary support. A coalition of Senators, prefects, and local elected officials successfully turned aside a reform proposal coming from a commission on local government reform, winning the preservation of the communal structure and the consolidation of numerous separate funding programs from individual ministries (at the time accounting for more than a third of the resources available to municipalities and departments) into a single block grant which local authorities could control.

The Socialists had several motivations to favor serious efforts at decentralization. The first was ideological. As Thoenig writes, before coming to power they called for strengthening local institutions "in an almost ritual fashion... Everything they advocate is tinged with references to local democracy and citizen participation in public affairs" (1979), p. 96). The Socialists also had political reasons to favor decentralization. They sought to further empower left-wing municipalities that had been held back by the old system. Although they had been unable to gain power at the national level until 1981, cooperation between the Socialist and Communist parties

resulted in their control, after the 1977 municipal elections, of 153 of the 221 largest towns (Mazey (1989), p. 49). Finally, the Socialists hoped to capitalize on areas in which they held regional domination as well.

As a result, Mitterrand declared that decentralization would be *la grande affaire du septennat*--the centerpiece of his seven year term. Thus, in 1982 the prefect was removed as the chief executive and was replaced with the elected president of the *conseil regional*, which were given the task of developing genuinely regional plans rather than just regional variations on the national plan. On the level of the *département*, the balance of power was changed between the mayor and prefect, who now can challenge mayoral decisions but not subject them to a priori control. Mayors may now grant building permits and even participate with public money in certain enterprises. The change also inhibits their ability to blame higher authorities for the effect of local policies. Another element in the reform of local government has been the modestly successful creation of multi-purpose districts by which municipalities can join together to provide common services.

While these changes are not insubstantial, they do not appear to have greatly changed the balance of power between Paris and the localities and regions. In few cases does the expansion of investment and activity on the part of these peripheral governments seem to be in advance of social and economic pressures. Generally it appears only to follow the massive urbanization and other demographic changes provoked by national policies (discussed in the next chapter). These forces, says Thoenig (1979), p. 78) have in large measure "drained local institutions of much of their relevance." While writing before the Socialist round of regional reforms, Gourevitch (1980) also makes clear that the existing administrative system has remained intact and, if anything, local forces have been weakened relative to the center. Genuinely substantive reforms, such as the 1971 attempt to reduce the number

of communes, have been notable failures. In Gourevitch's analysis, partisan political cleavages are best at explaining the failure, producing the general rule among French politicians to support decentralization while in the opposition but to hang on tightly to the instruments of centralized control while in power.

In conclusion, although intergovernmental relations have changed in important ways and French local governments have been strengthened as the result of reform, they continue to have rather limited capacities for innovation, to be financially dependent on central authorities, and to generate relatively little public involvement in their affairs. Central authorities continue to control education, health services, and justice which are essentially local services in both Britain and Germany. As Gourevitch (1980) concludes, France is one of the European nations to have changed the least in terms of center-periphery reforms. In evaluating the Socialists reforms, Mazey (1989) also finds the traditional system far from transformed. Still, the word participation in France is often linked to ways that more of it could be had at the local level. Is there a relationship between the development of local and regional authorities and the new medium?

C. Telematic Usage by Local and Regional Governments

Creating a global picture of the participation of non-local governments in telematics is both simplified and complicated by the attention that have been given them. While electoral, national administrative, and associational telematic services have gone virtually unstudied, their numbers are sufficiently small that they may be conveniently listed. Municipal telematics, on the other hand, presents a larger picture, but one that has been extensively studied. These studies will be summarized before turning to individual examples.

The *Observatoire des télécommunications dans la ville* (a France Telecom-sponsored study group) estimates that there are currently 300 services for local and

regional governments, with the number created and terminated annually (20 to 40) being in approximate equilibrium (LeMonde 8-9 décembre 1991). Although an area of major growth among telematic services in the years following the initial experiments, the first evaluation of them in Charon and Cherki (1985, p. 26) says they have "suffered from a great lack of creativity," calling them "very standardized." Even if some exceptions showed the potential of telematic development in this area, "some ideas that seemed fruitful at the start such as communication with elected officials and municipal personnel are still quite far from being realized."

The first study of municipal telematics in mid-1986 found "about sixty" of them (Gauriau, 1988). Thirty of these were studied intensively, with a quarter limiting themselves to strictly municipal information, half including local associations and private businesses (local cinema listings, for example), and a quarter run in cooperation with outside partners. Half of the services offered an electronic mailbox for comments or with which one could leave a message for the mayor, although "systems for communication between *administrés* (public debates, classified ads, etc.) or between partners (inter-associational electronic mail) are exceptional."¹²

A second major study of the telematic activities of local and regional governments (Futur Simple, 1987) found 68 municipal services and 21 regional and departmental ones. Only a quarter of the citizens with Minitels had access to such a service at the time, which gathered an estimated 5% of the telematic audience in the areas in which they were operational.¹³ The services had on average between 500 and 3000 screen pages, and 42% of them included games. In terms of their political

¹² *Administré* is an untranslatable word, best rendered by "citizen" but often closer to "subject."

¹³ At the time of the study (January 1987) there were only 500,000 Minitels distributed in France.

applications, the Futur Simple study found 60% of the services with a menu item called "write to the mayor," but nothing more advanced than one-way electronic mail. "Mr. Minitel Mayor doesn't exist," it reports (p. 12). "We didn't find it!" Citing the conjuncture of the telematics program with the laws on decentralization, the report observes that the departments and regions saw telematics first as a means of marking out their position relative to the local governments, especially the smallest ones, to whom it could offer professional services (advice to mayors and databanks of use in municipal decision-making). Services directed toward the public were seen as a secondary objective in most of the cases (p. 139). Promotion of them was so minimal the authors of the report questioned how potential users would know they even existed.

In mid-1987 Gérard Loiseau counted 121 municipal services (Loiseau, 1988), which although it included 46% of those of more than 80K inhabitants still was less than a third of a percent of all French communes. Looking at the rhetoric of the municipalities engaged in telematics, Loiseau observes that

democracy seems to be the ultimate goal of these municipal promoters. The relationship between this new communications technology and democracy is explicitly affirmed (p. 192).

But while "French telematics owes a large part of its success to the possibility of dialogue, of exchange, of bringing people together that is made possible by this tool," he finds few interactive applications on municipal telematic services. Live interaction with elected officials is very rare, although he found that half of the municipalities in the Paris region offered the possibility of posing questions to municipal officials on their telematic services. The services were found to be free of politics in both senses: information presented on them did not show partisan leanings, but neither was there a single case in which local political platforms were presented for voter perusal. "The gap is wide," he writes,

between the inaugural addresses given for telematic services which extoll a deepening of local democracy thanks to new communications technologies and the paltry reality, compared with what one might hope for with other policies for development of the telematic tool (p. 208)...There is only a very distant relationship with the democratic intentions heralded by local elected officials in their official speeches (216).

As to why this is the case he cites the minimal investment in design and implementation of municipal services and the desire of local officials not for interaction but principally to exploit the modernist image of telematics. In opposition to Nora and Minc, he observes that "local democracy is not of the same essential nature as local telematics" (p. 209), which due to its severe restrictions remains an almost purely informational medium instead of one in which communications-oriented applications are developed. Not only does this make municipal telematics atypical relative to other kinds of telematic services for the mass public but it accounts for their weak audience as well, according to Losieau. He concludes that although citizens may survey the landscape of local organizations, services, and activities, the medium's interactive capacities and political debate "are no more established in municipal services than was poetry in Plato's Republic" (p. 206).

The *Fondation pour la Communication Local's* 1988 study (Filliol 1988) found seven of the twenty-three municipalities studied involved in telematics, making it the leading new communications technology in which the municipalities participated. Yet, Minitel arrived in last place in a poll on how people inform themselves on local life (p. 14). "One thing is sure," the report concludes, "we are quite far from the quasi-lyrical flights of oratory on the blessings of participatory democracy (p. 36).

The *Futur Simple* study was updated for the 1987 to 1989 period (*Conjuger* 1989). It found 237 municipal telematic services and 41 departmental and regional services. The average usage of these services had progressed little since the previous

study, and it noted that the subservices generating the most connect time often turned out to be something different than what developers had anticipated at the start, with applications built to support special events producing significant usage peaks.

Despite the efforts of those running them, the report observes, the major part of the usage of municipal telematic services is generated by directory-type services (who is responsible for what in the city government) and recreation-oriented applications. The most calls (according to a survey of the managers of municipal telematic services) were generated by users seeking information on local sports, recreation, cultural, or entertainment events.

In terms of interactivity, although the vast majority (88%) of services offered some kind of message exchange, the most common messaging capability (45% of the services) gave users only the ability to leave a message for city hall. An average of 100 monthly messages was found for cities of 30K inhabitants, rising to an average of 300 messages/month for cities of more than 100K. The second most common messaging application (29%) offered users the ability to leave a message for the office managing the telematic service. Only 10% of the services allowed interaction between users themselves, and in only one case was this possible in real time. There aren't more of them because

municipal telematic services lack the essential ingredient that guarantees the proper functioning of the convivial messengeries: the existence of paid, anonymous *animateurs* who keep things going by regularly sending messages and creation of the illusion of a lively debate between a crowd of interlocutors (p. 14)

In looking for "forms of direct democracy," the report asserts that "the asset of Minitel resides in the possibility of obtaining and at low cost the opinions of an important number of users" (p. 15) It finds four cases of non-scientific polling in non-real time and two real time polls conducted at public meetings with Minitels on location. Questioning of people in real time by Minitel (live online teleconferences)

is also cited as an example of direct democracy, but no concrete cases are referred to. Only a small number of services (15%) were characterized as communications oriented, the rest being primarily means of delivering information in one direction. Rare were the cases that "make of this medium not only a tool for the diffusion of information but also a captor of public opinion" (p. 18).

Local associations constitute "a privileged partner" of municipal telematic services (p. 23). A third of the services were run in conjunction with one or more local associations, and about a fifth of the services offered subservices for associations and clubs that gave their members a means by which they could exchange messages. But the municipal services were also increasingly likely to orient themselves upon activities that would generate connect hours and revenues. Both classified advertisements and games were more likely to be present in 1989 than they were in 1986, with the latter nearly doubling from 30% of the services to 56%. Six times as many services were available over 3615 in the 1989 census as were in 1987 (in percentage terms twice as many), with free access over via a local telephone call being offered in only 13% of the cases in 1989 compared with 34% two years earlier. Although few cities were forthcoming in providing statistics on the income generated by their services the report estimates it as a maximum of 500 KF per year.

Fewer than half of the municipal services had an annual promotional budget and a third said they engaged in promotion rarely or only at the time the service was launched. The most heavily used promotional medium was the *journal municipal*, used by 92% of the services responding. The number of people working on the municipal telematic service was unchanged at between one and two full time people in two-thirds of the cases.

The municipal services were becoming both more similar and more differentiated from their major competitors, services run by local newspapers. While the

municipal services were becoming more commercial the same was the case among newspaper-run services. More and more, the report found, local newspapers were abandoning financially marginally applications to municipal services.

Services run by the press are often happy to offer games and messageries, generators of connect time, abandoning most often the niche of local information, which is difficult to manage and is "less profitable" (p. 26).

Municipal services were increasingly exploiting a key advantage, the ability to place terminals in public places. A third of all municipalities had Minitels in public facilities with which users could interrogate the municipal telematic service without cost. A fifth of the municipal services sold advertising space, which could in the case of a large municipal service equal the revenues from connect time.

The report found regional and departmental services undergoing a vast expansion. A third of all departments had a telematic service for citizens in 1989 (half if one includes professional-oriented applications not covered by the report) as did half of all regional governments. They largely remained focused upon purely administrative information, although they also were likely to distribute tourist-related information as well. In terms of interactivity, these services were less likely than the municipal services to offer messaging, and those that did generated only a "very weak" volume of exchanges. Only a fifth of all departmental services offered any messaging at all, and a third of these only allowed callers to leave a message, with response by Minitel being possible on the other two-thirds of the services studied. In no case were users able to send messages to other users.

Games and quizzes on the department or region were offered on two-fifths of the services, although few offered classified advertisements. They were more likely than the municipal services to be created in partnership with other agencies or organizations. The most heavily used service to report statistics generated only about

50 calls a day with, as was true with the municipal services, the older and best-established services being the most frequently consulted. Only three of the departments and regions engaged in regular promotion of their services and this lack of public awareness was cited by their managers as the principle difficulty they faced.

Simon and Charon's 1989 study of municipalities found fully three quarters of the 46 localities surveyed to be equipped with telematic services (Simon, 1990; Charon and Simon, 1991). Although "accompanied by a discourse making reference to direct democracy," writes Nathalie Froissart (1990, p. 35, 36) in a commentary on the Simon and Charon study, "the municipalities find themselves more in technical or economic projects than in the role of a facilitator of local democracy."

Finally, the most recent reviews of the current state of municipal telematics are from Loiseau (1991a, 1991b, 1991c). He estimates that about 500 municipalities with services, which despite their number he characterizes as a disappointment due to their "very marginal audience" (1991a, p. 167). He calls "the necessity of better harmonizing the relationship between local citizens and their elected officials as a means of strengthening local democracy" a "well-known refrain" that is "sung by all municipal authorities." These "noble intentions" to "improve the link between citizens and the centers of power, which is to say to better share power with citizens" are "widely agreed-upon" (1991a, p. 173). "Dialogue-oriented applications are supposed to lead to the birth of fruitful exchanges between numerous participants in local political life, including citizens" (p. 174). However, "political information, dialogue, and the expression of political sentiments by citizens is quite marginal compared to municipal information and practical data" (p. 175).

He offers several reasons for this "minimization of political applications and categories." First is a lack of sincerity on the part of municipal officials who wish

to capture the modernist image of telematics and solicit participation without actually getting any.

[E]lected officials prefer to give the impression of following a fashion rather than really involving themselves in uses of new media and thus to have to elaborate a genuine editorial strategy. Instead, they nod to modernity and welcome the telematic medium with kindly indifference (p. 176).

Another obstacle is that municipalities are far more concerned with economic efficiency than with "deepening the sense of citizenship." Loiseau also asserts that the telematic medium is not well-mastered even by professionals, making it "not surprising" that "there are hardly any imaginative interactive applications of telematics (questions and responses, open conferencing, polls) that are integrated into local democracy" (p. 176). Finally, those responsible for managing the services "distrust the ways telematics might be used to help rekindle local participation" (p. 177).

He concludes that

while municipal officeholders could, by putting their practices into agreement with their words, draw more heavily upon telematics as one of the communications tools available for bringing about a renewal of democratic debate (p. 178).

The "undeniable advantages" telematics has over other media remains unexploited as a means to "facilitate the participation of citizens" (p. 177). The association of decentralization and local democracy, at least as it concerns telematics, is no more than "political rhetoric" (p. 177).

In looking closely at a dozen examples, once again those selected are the best: the oldest, most expensive, most heavily consulted, and ones exhibiting the highest levels of interactivity. Even so, it is virtually impossible to find a true correspondence between these services and local political life beyond the marketing of already-made political decisions.

Table 14

Local and Regional Governmental Telematic Services

<u>Organization</u>	<u>Service Names</u>	<u>Operating 1992?</u>
City of Nantes	Telem	Y
City of Metz	Mirabel	Y
City of Villeurbanne	Viva	Y
City of Lorient	Azimut	Y
City of Compiègne	Appel 60, APL	Y
suburbs of Grenoble	Telise	Y
City of Epinay	Epinay	Y
City of Bordeaux	Bordeaux	Y
City of Toulouse	Capitoul	Y
City of Angers	Angers	Y
region of France-Compté	Francomtel (FCTEL, FCT)	Y
<i>département</i> of Eure-et-Loir	Pref28	Y

1. Biggest by Every Measure: Telem

The oldest, largest, and most expensive municipal telematic service is in Nantes, a city of 250K near the Atlantic coast in the Loire region. It opened in 1982 at a time when national policy was geared to enhancing the autonomy and authority of municipal governments. Although France Telecom had begun experimentation at Vélizy less than a year earlier Telem was essentially a local initiative. Its goals were

to "develop local democracy" and improve communications between citizens and administrative agencies (ADELS (1983), p. 82).

Since it predated the distribution of Minitels to households it was available at first upon fourteen terminals installed in public places. The 4,500 screen pages available at the beginning grew to 8,000 in 1983, when Telem became available both from private Minitels (by a local telephone number) or by one of 24 public terminals. In 1986 Telem became available on 3614 in addition to a local phone number. By 1987 approximately 20K Minitels were installed in Nantes and its suburbs, a figure estimated at 27K in 1991. Telem currently offers 15,000 screen pages from 200 information providers and has terminals in 34 public places.

The service is a very large database of local information: cinema and entertainment listings; children's activities, day care centers, school lunch menus; classified advertisements for employment and housing; administrative procedures; the hours of mass at churches; lists of hotels and restaurants; and, since 1988, a data base that lists the sports and cultural associations available to local residents.

The most popular part of the service is its employment listings, which Telem receives directly via computer from the local office of the *Agence National pour l'Emploi* (ANPE), the national employment agency. It is rare for a municipal telematic service to have ANPE listings online. They owe their presence, according to Telem's current director Bernard Toullec, to an arrangement dating from 1981 "at the highest levels" between the government of Prime Minister Pierre Mauroy and the mayor of Nantes, who was part of the Mauroy *courrant* of the Socialist Party (personal interview, May 1992). In 1991, this part of the service generated 41% of total consultations, up from 26% in 1990. In second position is recreation and entertainment, with about a fifth of all consultations.

Table 15 shows the figures offered by Telem to show its evolution.

Table 15

Usage of Telem, 1982-1990

<u>year</u>	<u>average consultations/month</u>	<u>total consultations</u>
1982	4,850	48,500
1983	10,000	120,000
1984	15,000	180,000
1985	18,750	225,000
1986	28,500	345,000
1987	43,300	520,000
1988	46,100	553,000
1989	56,150	674,000
1990	50,000	601,514

However, these figures must be interpreted with caution since "consultation" is not equivalent to a call. Instead, it refers to the number of times a secondary menu has been viewed. This means that some calls generate multiple consultations while other calls generate none. In addition, the terminals in public places are constantly on, making for a very small number of calls (one a day) and rendering the call duration statistic meaningless. Thus, more realistically, the service had 1,141 connect hours on 3614 in January 1992 that averaged 5:30 each for 15,432 calls. Approximately 60% of "consultations" come from 3614, so there were about 25,720 calls for that month. This yields an approximate annual total of 308,640 or about half of the total number of consultations.¹⁴ The greatest single generator of telematic traffic has been election results, which in 1989 attracted an unprecedented 10K calls in a single evening.

¹⁴ This is highly approximative. The distribution between consultations via the direct dial local telephone number and 3614 has evolved from 57% in January 1989 to 51% in 1991 to 44% in January 1992. Although there are no service differences between the two means of access, all publicity is done with the code 3614 Telem.

Promotion is extensive, with public terminals well-marked and displayed, and various handouts such as bookmarks, stickers, and brochures distributed widely. Half a million bus tickets were distributed in 1988 with an advertisement for Telem printed on the back. Promotion accounted for 12% of the 1990 budget, a level that has remained essentially constant.

Since 1988, users have been able to leave questions for Telem. No more than 2-3 are posed daily and responses are given by letter or telephone. "Most of the questions put to the service," said Director Maurice Jeanneau in 1988,

are very precise. So we try to have concrete information. The city gets thousands of letters a day, some of which don't get answered for months. So we don't solicit personal requests for information. Instead, we offer a structure with which someone can find their own answer, or the address and phone number of the person to whom they should speak (personal interview, July 1988).

Information about current issues before the municipal council or any content that could be considered political or partisan is rigorously avoided. "It is essential for the credibility of all the information on the system that we do not appear to be soliciting questions that we cannot answer. That would discredit the entire system." The most political element of the system is a listing of Nantes' elected officials. They do not, however, have electronic mailboxes, nor are mailboxes available for individuals to communicate with one another.

The head of an association is issued a password with which he or she may update a screen that gives time-bound information like meeting times and locations. Individual members of an association may not communicate among themselves, nor can callers leave a message for an association. All queries on associations ends with a screen that gives a telephone number to call for more information. Starting in May 1992, however, the local ANPE will have an electronic mailbox in which users may leave it a message. Answers will be made in messages that are open to all callers.

Telem was begun with an investment of 1.2 MF and a first-year operating budget of 1.2 MF. It has owned its own host computer since it began. In 1991 the total budget (including 300 KF investment) was 2.5 MF, of which 800 KF was hardware and software maintenance and 1 MF salaries for seven staff members, including the director. This figure represents 13.9% of the city's communications budget (20 MF) and 0.15% of the total city budget of more than 2 BF. An additional capital investment of 1 MF is budgeted for 1992-3 to replace the system's host computer and its software.

Telem is generally the leading example cited when examining municipal telematics in France. With on the order of 25K calls/month it is the most frequently consulted municipal service. However, it benefits from four advantages that make it atypical: its age, terminals in public places, the local employment listings, and its substantial resources (both staff and budget). The service operates at a very low level of interactivity, and its essential benefit to the citizens and to city hall is in providing a means by which citizens may find the information they seek (often the name of someone who is responsible for a service) without making a telephone call. But dividing its annual budget by the estimate reached above for the number of calls yields an approximate cost to the city of 9 F per call, making it quite an expensive way of cutting down on telephone traffic. As for meeting the goal of enhancing local democracy, one finds only two rather tenuous links. Citizens may orient themselves to the events of the city and they may find other local residents which share their cultural or recreational interests (although not political ones). However, they may not contact one another by this medium, nor is there a relationship between the content of the service and the public business of the city. In these ways, Telem is quite typical of municipal telematics more broadly.

2. Political Image-building: Mirabel

The Minitel service of Metz, a city of 125K in Alsace-Lorraine, is more closely identified with its mayor than perhaps any other municipal telematic service. It is Jean-Marie Rausch who nurtured the idea and provided the necessary political support for the creation of service, called Mirabel. His ability to associate himself with telematics and with its image of modernity, in addition to some adroit political manoeuvring and François Mitterrand's brief policy of *ouverture* towards the center, brought substantial benefit to Rausch. His status as a national political figure peaked, appropriately enough, as PTT Minister in the Cresson government. Rausch is arguably the French politician to have exploited Minitel best, even though the service itself, seven years after its creation, is still struggling with its identity.

At the time Mirabel was launched in November 1984 there were few telematic services and even fewer local ones. It was created to provide local information for local residents taking a Minitel. It is an entirely municipal operation that cost the city 437 KF to launch, plus 1.5 MF for software and the host computer (which is owned by the city government) and 4 person/months of software development.

They have built a massive database of local information of about 5,000 screen pages of permanent information and 500 that are time-bound. A tourism section includes a guide to restaurants, events, and orientation to the city in German and English. A section on daily life has movie listings, cultural events, sports, transportation, teaching and job training, and churches. A list of 75 sports and 80 cultural activities present about 500 different associations that offer them to potential participants. Callers can play games (five places per concert in the city's Arsenal theater are given away on Mirabel) and, during tax season, calculate their tax bill. The most popular part of the service is the theater/entertainment section, but the tax calculation service generated 3,500 calls from mid-February to mid-March 1992, including 180

questions (answered by the local branch of the Finance Ministry) whose responses were posted publicly.

As Table 16 shows, usage of Mirabel declined steadily until 1989-1990, then began to show some improvement in 1991.

Table 16

Usage of Mirabel, 1986 to 1991

<u>year</u>	<u>total calls</u>	<u>monthly average</u>	<u>daily average</u>	<u>total hours</u>	<u>monthly average</u>	<u>daily average</u>
1986	216,337	18,028	593	21,082	1,757	57.8
1987	180,449	15,037	494	18,071	1,506	49.5
1988	147,626	12,302	404	14,500	1,208	39.7
1989	112,463	9,372	308	10,562	880	28.9
1990	87,289	7,274	239	11,367	947	31.1
1991	114,402	9,533	316	12,410	1,241	46.0

Much of the usage of Mirabel in its early years can be explained by the lack of other things to do with a Minitel. The creation, for example, of a telematic service for the SNCF (the French national railway) ended the use of Mirabel to find train schedules, which until 1987 generated about 100 calls/day. The closing in 1990 of a regional theater that had generated 25-50 calls/day also has diminished use of the service. In February 1992 Mirabel received 449 calls for 1503 connect hours.

Its operational budget has been relatively stable since 1987. In 1991 it was 460 KF and was 550 KF in 1992 (a temporarily inflated figure that includes the cost of hosting a large conference on municipal telematics). Not included in these figures are the salaries of four full time people (a director, a specialist at telematic page creation, one who collects information, and another who updates the permanent information) and one person part time (who does updating). It is available by local telephone call (40% of all connections), 3614 (the means of access included in all

promotions and which accounts for 45%) and 3615 (another 15%). A few applications such as theater or orchestra reservations are only possible by calling 3615.

Most of the money is spent on promotion, which includes magazine advertisements, radio commercials (50 KF in 1991), brochures, posters, and give-away items with the service's logo such as radios, clocks, pens, and paper clips. There are also references in the municipal magazine to further information that may be found on Mirabel. While Mirabel is a formidable operation, its budget must be compared with the 1.2 MF cost of the municipal magazine (a figure which does not include its advertising revenues) and the 1.2 MF municipal contribution to a public radio station run by a local association. Metz spends 2.6 MF annually to promote itself (this figure does not include telematics, the magazine, or the radio station), and a total of 1.2 MF on culture (most of which is its theater and museum).

Mirabel has had a question and response section since it was begun, which currently receives between ten and twenty messages a month (an amount that is declining). In addition, a section on public works receives perhaps another ten. All responses are given by Minitel. Questions that Mirabel's director Marie Claude Margraite does not feel competent to answer she passes on to the mayor's office. But to a query related to the mayor's demotion of a Socialist deputy mayor his office replied, says Margraite, "that they don't respond to political questions." Although there has never been a live messagerie on Mirabel the service had a private electronic mail system that lasted a weekend. "We opened it on a Friday," says Margraite, "but the publisher of the local paper called the mayor to express his displeasure and on Monday we were told to close it" (personal interview, March 1992).

For a month in February 1986 Minitel's potential for higher levels of interactivity and local political life temporarily came together. Just before the regional elections Rausch launched a campaign to announce that he would respond to questions

on Mirabel, although not live. Those running Mirabel were "not really in favor of it, since it was political," says Margraite, adding "not that we had a choice." All questions had to be posed in the first two weeks of the four in which this feature was open. About six hundred questions were posed in each of the first two weeks, and about 1000 people called each week to read the answers. Both the number of calls Mirabel typically received and their duration doubled during this time.

"The questions," says Margraite,

turned out to be basic and not very political, concerned with streetlights and holes in the sidewalk or about traffic...The problems that came to the surface were about daily life, not about political parties. We never did it again. It disrupted everything, the obligation that municipal offices had to respond within 48 hours. They were really pressed to do this, which is not at all in their culture. All of a sudden they were overwhelmed.

A similar non-real time teleconference was done for the arrival of a new Bishop in Metz at the end of 1987, for which the Catholic Association paid about 60 KF to advertise. It received even more calls and connect hours than did the mayor.

Margraite was under direction to raise the daily number of calls to 1000 a day by June 1992, a figure never before achieved even at in Mirabel's best years. This was to be done by focusing on more purely municipal information, a concentration that is more likely to diminish usage rather than increase it. As with other managers of municipal telematic services, she is thus trapped between requiring controversy and the attention of municipal decision-makers to attract usage and the inability to demand the cooperation of other municipal offices, as well as the unstated but well-understood requirement to avoid anything contentious. On the basis of the 1991 figures cited above, each call represented a municipal expense of 4 F even if no salaries or development costs are included. Thus, if there is a logic to the "payoff" for municipal

telematics, it most likely lies in the political benefits that have accrued to those who have captured and exploited its modernist image to appear more accessible.

3. Online Polling and the Marketing of Political Decisions: Viva

Viva, the telematic service of Villeurbanne, achieves the highest level of interactivity among the municipal telematic services. A suburb of Lyon with 120K inhabitants, Villeurbanne it is best known as the city in which Charles Hernu, a former cabinet minister, served as mayor. Viva was begun in 1985 and since 1990 has featured a section in which citizens are invited to vote on matters of concern to local decision-makers--but only after a decision has been made on them.

Viva cost 250 KF to launch, an expense made to help the city's communication service diversify itself and "reach the young urban population that used telematics," according to its director, Jacques Gaillot (personal interview, April 1992). Villeurbanne spends 5.5 MF annually on communications, a third of which goes to the municipal magazine, another third pays nine salaries (a director, three journalists, a press aide, a photographer, the head of the telematic service, and two secretaries), and a final third that includes telematics (budgeted at 250 KF annually) and other activities. It is hosted on a computer owned by a service bureau.

Viva includes news, administrative information (such as garbage collection), useful addresses, and features such as a daily horoscope. Interactive applications include classified ads (for babysitters or rides, for example), a medical subsystem (in which callers may read public messages on health topics, ask a private question of a doctor, and find the phone number that will tell them the pharmacies and doctors on duty), and cable television listings (which allows callers to leave questions for managers of the cable system). Questions may also be posed to city hall (to the mayor, his deputies, or city councillors) or to a parking and traffic commission. As with the other question/response services on Viva, users may receive their message

in a private mailbox on the system (of which there are about 200). There is also a public forum in which complaints about noise, traffic, parking, and animal control are answered.

The number of question/response elements (for the cable system, city officials, the traffic commission, and a doctor) and the forum on public issues already make Viva one of the most interactive of municipal telematic services. The voting subsystem, however, make it unique in France. It is the most popular part of the service, with 30-40% of all callers consulting it. The votes are conducted on subjects treated in the municipal magazine, which since September 1991 has dedicated its final page to the telematic polling operation. Questions have concerned such things as the management of green spaces, the extension of bikeways, and police patrols. The choices, however, are generally "solutions among different priorities," rather than votes in favor or against something. For example, a city initiative to cut down on dog excrement asked callers to vote for the best means of enforcement: ticketing, a publicity campaign, or selective enforcement in recreational areas used by families and children. For an online poll on bikeways the choice was between support of the city's plan, which was focused upon recreational riders, preference for a more ambitious plan designed to cut down on automobile traffic, or support for neither. Local ecologists mobilized for this poll and were able to ensure that the most aggressive policy got 60% of the votes.

A successful exercise lasts about three weeks and gets about 150 votes. But as Gaillot says, they are mostly done "after a political decision is made, as a way of explaining what has been decided." His job responsibilities also include public relations for Villeurbane and he admits that the online polling has more to do with caring for the city's image than with local political life.

No member of the city council has ever proposed a topic for an online poll, but local political forces have in the past objected to the idea that the city may not be pursuing a wise policy. The choices for a poll on the city's policy on parking tickets for vehicles found double parked offered three choices: agreement because issuing tickets would clear up the problem, agreement with the goal but not the means, and disagreement with both the ends and the means. "Socialist *militants* didn't like the idea that people could choose number three," says Gaillot, "saying that the law is the law and you can't give people a choice in an official medium to be against it." Gaillot was warned by the mayor's office to be more prudent.

Another example is an online poll on the duties and responsibilities of the *Conseiller Régional*. Only a slight plurality (45%) said it was someone who defended local interests on the regional level, while almost as many (40%) saw it as essentially another elective office to be held by the same people who held the others. So Gaillot explained in the following month's municipal magazine how duties are distributed between the various levels of government. This is "pretty much the limit of what we can do. We're still experimenting, and will either keep doing the same stuff, which will get boring, or get more energetic, which risks provoking opposition."

In 1990 Viva got about 3,500 calls/month for between 180 and 240 connect hours. This was down to 1,500 to 2,000 calls/month in 1991 for about 100 hours. The principal reason for the diminished number of calls is that "the quality of the service has declined. It is less up-to-date and less rich than before." Most of Viva's impact, says Gaillot, has been upon the content of the municipal magazine. "If the service died tomorrow there wouldn't be a big reaction."

4. Public/Private Partnership: Azimut and Appel 60

Appel 60 and Azimut are two services whose origins are municipal but that have come with time to be supported by private funds and to take on a more commercial orientation than other municipal services.

Azimut, a municipally-sponsored service in Lorient, got its name "because we weren't sure where we were going," according to its Director, Jean-Marie Corteville (personal interview, April 1992). Although begun by municipal initiative in 1987, Azimut has been able to build up a sufficient audience to be of interest to local sponsors, who pay to be a part of it. Lorient has 60K inhabitants (150K in the metropolitan area) and is located in Brittany.

The service grew out of a national initiative during the Fabius government to put computers in schools. Having received both a computer and the charge to use it to distribute local as well as national information, the local *Centre d'Information et Orientation* (CIO) approached the city to study the possibilities of a telematic application. They decided upon a decentralized support structure designed to leave responsibility with various partners (the tourist office, information office of city hall, youth department) for the parts of the service concerning them. In the first year only a handful of paying partners participated, which developed more rapidly after 1988.

The city's contribution has grown from about 70 KF in 1987 to 180 KF in 1991 and 1992. However, while this was 100% of the total budget at the start, the municipal contribution has shrunk to 25% of a total budget (1992) of 700 KF. This amount includes salaries but does not include rent, the personnel of the CIO who work on the service, or off-budget contributions such as the publication of the service's main brochure, which is paid for by the local office of France Telecom.

The service is very much information- rather than communication-oriented, with its primary goal being to make what is going on in the city known to citizens.

Its 4,000 screen pages (500 of which are updated weekly) give particular emphasis upon entertainment (listings and upcoming events) and sports (both schedules and results). Also included are local news, information on teaching and training programs, and a guide to local associational activities. Sponsors of online information include a local bank, a hospital, the Chamber of Commerce, a regional economic development agency, local radio stations, and the local newspaper Ouest France.¹⁵ Cinema listings and local sports results are the most popular, and in third place is a section that is used upon occasion to follow a local event such as boat races in real time, which is updated several times daily. Usage fluctuates between 5K and 12K calls/month for between 400 and 600 connect hours.

Most of Azimut's promotion comes from its partners and from its offer of sponsorship credit, for example to the newspaper in exchange for advertising space. Its actual cash expenses on promotion amount to about 40 KF annually. On one occasion France Telecom included inserts in local phone bills promoting the service. Ten Minitels in public places also provide access to the service and help promote it.

In terms of the higher levels of interactivity, users can sign their children up for activities at a local recreation center and can post classified advertisements. Callers can also leave comments on films, which are read and approved before being posted. There are no electronic mailboxes for individuals, but France Telecom's local agency has about 100 mailboxes on the service that it uses for internal communication. Users may leave questions for Azimut, which gets about 20 a week.

Support from the city, says Corteville, remains modest since they distrust a service "that one can't smell or see...Telematics doesn't make any noise."

¹⁵ It was Ouest France that led the press's early opposition to telematics.

Appel 60 is another service whose origins can be traced to the initiative of city authorities but which has essentially become a local not-for-profit enterprise. It was created in 1983 by local business groups and the city government, in part as an effort to enhance Picardie's image as a center for the electronics and computing industries.

It includes cinema listings, tourist information, bus and train schedules, and presents about 25 local associations to potential members. About 20 local groups also have electronic mailboxes, and messages may be left as well for the Compiègne city hall and the service itself. About 180 different organizations pay for a part of the service, which also includes advertising (an unselected message that displays itself ~~automatically~~ at the bottom of a screen. Appel 60 reports an average of 13K to 14K calls/month, with its best month reaching 25K calls for 1,200 connect hours. It is accessible by a local phone number or by 3615 (code APL). It includes 7K to 8K screen pages.

Its 1991 budget is 1.3 MF, of which the city provides 120 KF and the office in which the service is located. Appel 60 is featured in the teletext magazine (automatic displays of electronic text uncontrolled by users) that is on display on video screens on eight city buses and in about 30 other locations, which serves as a novel form of promotion. Four people work full time on the service, although each organization on the service is responsible for updating its own information.

City Hall reports that it receives no more than 4-5 messages a month by Minitel and that signed questions receive a response by letter. Unsigned ones are answered by Minitel by summarizing the question and making its answer public. Both the local branches of the PS and the RPR have taken parts of the service, although only the PS offers an online electronic mailbox.

In both of these cases the municipal commitment to telematics has been primarily in getting them launched, although they continue to receive annual subsidies.

Despite this, they are quite information-oriented, with only limited capacities for messaging, all of which are unidirectional. Outside of the somewhat commercial orientation of their organizational structures they are typical of this class of service: offering only the lowest levels of interactivity and generating quite modest usage. Nor is this distance from city hall advantageous in terms of the liberty of expression allowed or encouraged. The partners of Appel 60, for example, sign an agreement that prohibits them from all political expression (Losieau (1988), p. 200).

5. Intermunicipal Cooperation: Telise

Telise is something like Azimut and Appel 60 in that it has grown from a municipal initiative into an semi-independent enterprise, and also like Aspasia, in that what it has begun to sell isn't space on its service but its expertise in telematics.¹⁶

Telise was created in 1987 so that seven suburbs of Grenoble would share the expense associated with starting a telematic service. Of the seven (combined population 150K) only four are still operating in 1992. The primary motivation was the delivery of information, says Jacqueline Frisot. "Dialogue with the population was secondary" (personal interview, April 1992).

The service includes purely municipal information for each commune as well as diversions such as games. Subsections include features for new arrivals, the commune's chief statistics, a list of elected officials, services for young people and retired people, libraries, and menus for the school cafeterias. As with most municipal services, entertainment listings are the most popular. All services are accessible either by a direct dial local telephone number or by 3614, so there are no revenues.

Upon occasion the municipalities have run question and response services tied to particular public decisions. In the case of Echirolles one concerned the reconstruc-

¹⁶ Aspasia is discussed in the next chapter.

tion of the center of the town. About seventy comments were posted in this manner. St. Martin d'Aire solicited response by Minitel concerning the future of an abandoned factory. It received on the order of 50 comments this way, which the head of the city's communication service was responsible for reading and responding to. Other interactive applications have included allowing people to sign up by Minitel at a *Centre de Vacances*. A limited number of places were available by Minitel so as not to allow privileged access to the program to those with Minitels. Echirolles also has an internal electronic mail service with about 100 mailboxes. A study of its usage in February 1992 revealed that a third had been consulted the previous day and two-thirds the previous week, while a fifth had never been used.

The municipalities contribute 650 KF annually, but that comprises only half of the budget, the other half coming from private customers (such as Actions sp, the CGT telematic service, which is discussed in the next chapter) or consulting clients. Telise has five full time employees. In 1991, all the communes together generated about 6K calls for 500 connect hours. They are virtually unpromoted, with occasional mentions in their municipal magazines and a few posters.

Frisot expresses well the frustration managers of municipal telematic services feel at being caught between the criticism that their services are little used and the less well enunciated but clear requirement that they remain quiet and uncontroversial. For a youth festival in 1989 the Echirolles service offered the program of events, some games, and an online debate. One of the messages posted alleged that a local student had died of an overdose but that it was kept quiet and there was nothing about it in the local newspapers. Telise was directed to remove the debate and since they there has never been another one. Ultimately, however, the news emerged that the rumor had indeed been correct. "They're afraid of Minitel since it is somewhat beyond their

control," says Frisot. "On the one hand they want us to get more usage, but they prevent us from doing the things that would generate it."

6. Other Municipal Services: The Rarity of Interactivity

It should be clear by now that most municipal telematic applications rank no higher than level one interactivity (selectivity). Upon rare occasion, they reach level two (reactivity). Level three (conversational) is virtually unknown and level four (activational) nonexistent. However, a handful of other examples are useful before drawing conclusions about the (lack of a) relationship between the variables that might explain the rare cases where higher levels of interactivity are reached (such as the age of the service, the role of the municipality in the management of the service, the political orientation of the municipality's political leadership, the size of the city's population or the service's budget, etc.). To this end we briefly look at the telematic services of Epinay, Bordeaux, Angers, and Toulouse.

Epinay is a city of 49K inhabitants in Seine St. Denis, the *département* comprising the suburbs to the northeast of Paris. Its telematic service (code Epinay1) was created in 1987 on the initiative of the city manager (*chef d'administration*) to serve the internal communications needs of the city government and as a means of providing a permanent source of information to citizens. Its mayor is RPR.

It is a modestly-sized service of about 2,600 screen pages that includes games (both having to do with the history of the community and educational games developed with the schools), a magazine on local events, weather, television listings, and sports, entertainment, and recreational offerings. More than 100 local associations are listed, with their addresses and the name of the person to contact. In March 1991, of 3,872 connections, 684 were for a daily journal of the activities of a group of school children away on vacation (for the benefit of their parents), 377 for reservations on the municipal tennis courts, 191 for games, 150 for municipal

information, and 148 for television listings. On average the service generates 3K to 4K calls a month for about 250 to 350 connect hours.

The service is hosted internally on a computer that originally belonged to the city's police department. Its annual budget is 20 KF, which does not include about 50 KF spent on promotion (posters, billboards, and giveaway items like pins) or salaries.

Users may leave questions for the municipal government or for a youth council. Between twelve and twenty questions are posed in a month, which are answered via private messages on the service (for which the questioner is issued a private password with which the response may be retrieved).

Angers current telematic service is its second, the first service having lasted from 1985 to the end of 1991. It was begun, according to Bernard Lecoq, the official of the city's information service that is responsible for it, because its mayor "wished to be among the first to have this modern means of communications" (personal interview, March 1992).

The first service for the city's 146K citizens was "very encyclopedic," says Lecoq. It had grown to more than 2,000 screen pages and was "very heavy and difficult to update." In the middle of 1990 the decision was made to start again, with the goal being to have fewer screen pages but present more practical information. "We got rid of the things that no one ever used." In addition to administrative information the service has entertainment and recreational information, and a general "good to know" section that includes the local open air markets, and a question/answer section with the city hall, for which responses are made in public messages.

The service had been costing the city 140 KF/year, which has been reduced in 1992 to 100 KF and will decline to 50 KF. It is hosted by a service bureau, which

will keep all receipts generated by usage. Seven people work in the information service (which has an annual budget of 2.1 MF) but none is responsible for telematics full time. Each part of the city government has been given responsibility to update its part of the service, like the hours of the municipal pool. The most popular element is the movie listing, which includes short summaries of films. Also popular is a feature that shows what events are happening that evening.

The service received 1,100 calls/month in February 1992 for 60 connect hours. Promotion has been done by an insert in the municipal magazine (70K copies distributed), on the cable system (10K subscribers) and on the electric billboards (of which there are eight).

There are no individual electronic mailboxes, nor any interactive applications beyond the ability to leave a question for the service. "It's not attractive for the mayor to get into interactivity," says Lecoq. "He's not a mayor who is afraid of debate, but he doesn't have the time to respond to questions." Other than giving the names of candidates for public office the service steers away from political content. "We don't need to do that," says Lecoq. "The local press is very strong, with two local papers in competition."

Bordeaux's service was begun on the initiative of the person responsible for its computer department, who had already created an internal system of electronic mail. By the time it opened in November 1989, as its Director Jean-Claude Chanut says, "it was abnormal not to have a service, since all cities with more than 50K inhabitants already had one." In fact, by the time Bordeaux's service began, the local newspaper, the Chamber of Commerce and Industry, the hospital, and the tourist office each had their own services.

For Bordeaux's 215K inhabitants (620K in the metropolitan area) it provides administrative information, listings of sports, recreation, and cultural events, activities

for young people, training and educational options, traffic and health-related information, and a section on wine and the wine industry. "What works best is anything having to do with a local event, before it is in the newspaper," says Chanut. "Outside of that, the most important is the cultural and sports calendar, like movies and shows...some part of our clientele want to know where to go out but don't buy the paper." It averages 4K to 5K calls/month for 400-450 hours/month.

Its initial budget was 500 KF for all telematic activities (including the internal electronic mail system and an inter-urban electronic mail system for which Bordeaux served as the local hub). About 150 KF was spent on promotion at the start, but there is no ongoing promotional budget. The service's overall budget increased to 750 KF in 1991, of which about half is for 3615 Bordeaux.

Users are invited to leave messages. They are answered privately if a phone number or address are left. Administrative questions are answered substantively (ie. not just with a note telling who to call), but political questions are simply sent on to the mayor's office. Callers may also receive a response in a part of the service in which questions and responses are posted together and accessible to all callers. About 10-12 questions arrive daily, two-thirds of which, says Chanut, don't concern the city but other levels of government or non-governmental sources. Chanut reports that resistance to responding to questions by Minitel has been strongly opposed within city hall but may, with time, be softening. As far as conferencing goes, Chanut says "I would never get authorization to do a municipal forum."

The services that work best, he says, are those that "are the least municipal." Despite a bit of bureaucratic resistance at the beginning, Chanut says now "the service is seen with benevolent indifference."

The telematic service of Toulouse was begun in 1985 as a means of distributing information to the population. "At the time," explained Mme Abadie, who

is responsible for the service, "it was *à la mode*, all the big cities had one and we wanted to be part of it (personal interview, March 1992). It is called Capitoul (*Centre d'Accès Public d'Informations Télématiques Organisées à Usage Local*).

Accessible on 3614, it contains detailed municipal information (even marriages and births), but entertainment (including local television listings), recreational, cultural, and sports information are the most consulted elements of the service. It also lists members of the city council and their responsibilities. It generates about 5K monthly connections for about 300 to 350 connect hours.

Launching the service cost 700 KF and its annual operating budget is about 100 KF including two full time people and one person at less than half time. There is "very little publicity." There is no means to contact the service or electronic messaging of any kind, nor are there any games. It is purely unidirectional, and very typical.

To round out this survey before concluding a service at each of the next two levels of government--*départemental* and regional--must be examined.

7. Départements and Regions Online: Pref28 and Francomtel

The experiences of *préfectures* (the administrative offices of a *département*) and of the regions are similar to those of the municipalities with, if anything, even less tolerance for the communication of anything political by telematics. Francomtel and Pref28 will serve as examples.

Francomtel was created for the region of France-Comté (Strasbourg) in 1983, or at the very start of telematic activity. Access is possible both on 3614 (code FCTEL) and 3615 (code FCT). It is a large service that presents everything from the services of the region and its *départements* to its agricultural products and how to cook them, the weather, and road conditions. The addition in 1991 of the local employment listings increased the average number of monthly calls five-fold, from 2K

to 10K. It is current receiving from 15K to 20K calls a month for, as an example, 1,223 connect hours in February 1992. Half of all calls are for job listings. It is hosted by a private service bureau, but costs the region a very minor amount (3K a year) to maintain.

An electronic mail system provides associations and public organizations with mailboxes, but is used "very, very little" (M. Dupeé, personal interview, March 1992). Private electronic mailboxes were permitted for a year. "It worked very well but turned into a *messagerie rose*...it was not continued for political reasons...This is not an objective of the *conseil regional*." About one message a day is left in the service's online suggestion box.

Pref28 is the service of the *préfecture* of Eure-et-Loir (Chartres). It was created in 1987, when it was estimated that Minitels were in 12.7% of all households in the *département*. The poster distributed to publicize it advertised four applications: information on rights and administrative procedures, listings of opportunities for professional training, a daily weather bulletin, and "dialogue with the bureaucracy."

It is an almost purely informational service that offers more than 9K screen pages on taxes, an organizational chart of the *département*, and a guide to administrative procedures. Among the most popular services for the public at large is the ability to request a certificate that indicates there are no debts on a motor vehicle. In 1991, 1,693 of these requests were made. The public may also leave a question (about ten are posted each month). Users receive a password by which they may gain access to the response left for them. However, internal applications (within governmental offices) account for half of all usage, most of which is for a service for reserving conference rooms and for internal electronic mail. Usage is enhanced by changes in administrative procedures so that some internal memoranda, such as changes in personnel assignments, are no longer distributed by paper.

The service is available by a local telephone number (for residents of Chartres) and by the code on 3614. In 1989 the service received an average of 2,185 calls/month for a monthly average of 148 connect hours. In 1990, these figures increased to 2,974 and 194, respectively. Usage continued to grow in 1991, reaching 3,756 calls/month for 220 connect hours. More than half of these connect hours (1,513 or 57%) were generated by the local telephone number. Figures on the cost of starting the service were unavailable, but it is hosted internally on an advanced (386) personal computer. Both these services are strictly administrative. They make it possible for citizens to orient themselves to the jurisdiction and its services and, in case of Pref28, save themselves a trip to the *préfecture* and the time spent waiting in line. Probably the best indicator of the value of the telematic service to the political jurisdiction is found in the headlines in the local paper concerning Pref28: "*La préfecture d'Eure-et-Loir est branchée sur Minitel*," (La Républicain du Centre 24 septembre 1987) and "*La préfecture plus branchée que jamais...*" (La Républicain du Centre 12 janvier 1990). "*Branchée*" means both plugged in, as with a cord into an electrical outlet, and up-to-date. Thus, while providing information to users these services also provide benefits to the public image of those creating them. Only a very small amount of the promised "dialogue with the bureaucracy" is to be found, however.

III. Summary

Despite the rhetorical linkage that has been forged between Minitel and decentralization it is virtually impossible to find one. As is the case with politicians in the previous chapter, the administrative agencies and local governments that use telematics exploit its modernist image. They make claims about the medium's ability to enhance communication between citizens and their government, but several orders of magnitude more people hear the claims than ever attempt to use the medium in that

way, if this capacity is even offered them. In most cases it isn't. Even when messaging is supported, the questions posed this way are effortlessly deflected.

However, there are two ways in which one can find a minor relationship between telematics and decentralization. For the first, the distinction must be made between information and communications. Citizens may have at their disposal an improved means by which to engage in surveillance of the informational environment, whether that be in their local community or as citizens of the national government. Advocates of governmental telematics credit it with creating better informed citizens. Even if it is not a powerful medium for communication it does present citizens with a constant source of administrative information, in essence an electronic card catalogue of governmental services.

However, this flies in the face of the mass indifference with which these services are received. Few people use them to acquire government information. For municipal services most usage is generated by the least "governmental" information-- what films are showing or what is on TV. In the case of administrative agencies the most heavily used applications are for people acting in their professional capacity (teachers, PTT employees). Most of what they want can be reduced to the word "data" rather than the word "interaction." And when they use telematics it is often because there are no viable options, no other ways of accomplishing the same task.

The other way in which telematics and decentralization are related is the strengthening of the role and function of local and regional governments, historically the weak siblings of the national government. The municipalities and the regional authorities have telematic services, which by itself represents an expansion of their responsibilities. Telematics is part of the growth of their activities as communicators, which have expanded with the development of their other interventions. Since they are generally quite involved with different media and frequently the publishers of the

most important local media, their non-involvement in telematics would be harder to explain than their involvement. Simply training citizens to seek an answer from local authorities is a change from communications patterns of a generation earlier. Still, the role of telematics in this is quite modest.

In each of these cases of governmental telematic applications, elite opposition to interactivity has been strong. Creators of these telematic services seem to want the image of being responsive as much, if not more, than they want the telematic medium to be used in this way. As is well shown in the cases of Telise and Mirabel, managers of governmental telematic services are trapped between demands that they generate more usage and the requirement that they offer only the most anodyne and banal content. And politics--competition for political power or the challenging of decisions on the allocation of resources or values--is absent. In only one case do citizens have the ability to comment on public business by means of the telematic medium, but they can do so only after a decision has taken place. In electoral periods there isn't even the online equivalent of the legally-mandated posters representing each of the parties that one finds outside of French city halls. One may learn how to vote but there is no substantive information on the choices confronting voters, even so much as the superficial slogans that officially-sanctioned media give to voters.

To counter the objection that governmentally-produced media are an unlikely container to peer into looking for political content, next chapter looks not at the government but at the governed. Does telematics provide a means by which citizens with similar interests may find one another and organize themselves to make demands upon public authorities? Here as well the weakness of the medium's political impact is a reality that blocks the light given off by the participatory rhetoric that has been part of telematic development.

Chapter VI

Associational Communication: Telematics and Postindustrialism

If there is an intellectual core to the idea of an emerging post industrial society, it is that there is a rising social class comprised of individuals engaged in knowledge-based, non-manual employment; that their self-organization into groups animates new forms of association; and that their influence in public affairs is enhanced by the development of new media. One does find in France a massive social upheaval brought about by the transformation of capitalism, which has created a dominant class whose status is based upon educational rather than material resources. France also has experienced a dramatic rise in associational activity, driven largely by this new class's participation in community life. Finally, France is the nation with the most widespread access for these individuals and groups to new media. Yet, close and careful scrutiny reveals that the third of these has only the most minor relationship with the first two. Although there are some intersections worthy of investigation, neither France's new social configuration nor its rapidly expanding associational activity appear to be substantially furthered by the development of telematics.

Although there is a strong demographic resemblance between the citizens who are most comfortable with telematics and those most engaged in associational activities, the medium only rarely becomes a means by which group activities are organized. With some important exceptions--such as brief periods of intense political activity--the telematic services for French associations are windows, not doors; most associational telematic services allow callers to see into a group's activities, but very few provide opportunities to participate in them.

I. Interest Group Politics in France

To isolate and understand the relationship of telematics to French associational life one must first explore interest group activity in France and the communications practices in which these groups engage. Despite the remarkable flowering of associational activity in France, some elements of the traditional interpretation of interest group politics continue to be valid, while others no longer are. Even with the rise of *la vie associative*, interest group activity continues to be relatively weak, phemeral, and when motivated by political considerations, concerned largely with winning state subsidies rather than with forms of intervention that lead to stable and durable associations. There is also some evidence that the increase in interest group activity in France may have been a phase during which new elites were co-opted by established institutions and, hence, one which may have largely run its course.

A. The Traditional Interpretation of French Interest Groups

The weakness of French interest group activity has traditionally been interpreted as the logical counterpart to the strength of the state. Historically, French political culture and ideology made the state the sole domain of power. Outside of voting, participation was looked upon with extreme skepticism. As Mény (1989, p. 92) writes, French interest groups are fundamentally crippled by "a conception of politics which rejects the group as a legitimate actor." He calls "the aversion of French political culture to interest groups" a "long-established and well-known phenomenon" (p. 91). That the state was slavishly supported by the populace, except for occasional spasms of discontent, was said by many to have sprung from the allegedly unique French personality, an interpretation has been "much stressed" (as Hanley et al (1984), p. 108 put it) by observers such as Hoffmann (1963) and Crozier (1964, 1970). As Crozier (1964, p. 204-5) writes

People are very ambivalent toward participation...On the one hand, people would like to control their own environment. On the other hand, they fear that if and when they participate, their own behavior will be controlled by their co-participants. It is easier to preserve one's independence and integrity if one does not participate in decision-making. By refusing to be involved in policy determination, one remains much more free from pressures.

Alternatively, the weakness of interest group activity has been explained by observers such as Hayward (1983) as a manifestation of anti-statist reaction to extreme statism. The weakness of interest groups in contemporary France stands in marked contrast with other periods in French history in which organized interests were powerful and the state quite weak--to the detriment of the public interest. To many French citizens and especially members of the political elite, the ability of narrowly-drawn economic interest groups to dominate governments and bring them down in the Fourth Republic refreshed the historical distrust of interest groups as dangerously destabilizing.¹

Most empirical research on interest group activity in France, as both Mény (1989) and Wilson (1987) point out, has been conducted in the context of neo-corporatist theorizing. As Wilson (1987) says, studies of overall patterns of interest group activity have not been conducted. Groups and policy areas that do not show corporatist tendencies have been neglected.² Because of this, it is somewhat difficult

¹ France had 26 different cabinets with 15 different Prime Ministers between 1946 and 1958, an instability that was both cause and effect of the power of a number of active pressure groups, the North African lobby and the wine and alcohol producers being the best known (Hanley et al (1984), p. 9; Derbyshire (1990), p. 12).

² Keeler (1987), Wilensky (1976), Kolinsky (1974), Schmitter (1977) and Schmitter and Lehbruch (1979) are the leading proponents of the neo-corporatist interpretation, while Wilson (1987) tries to show why this model has only limited explanatory value. In this he is supported by Schmidt (1979), and Cox and Hayward (1983). Mény (1989) also sides with Wilson, finding "the neo-corporatist model could apply to France only with such changes that it would no longer be neo-corporatism. In that case, the model would seem to have little use" (p. 99).

to draw an accurate global picture of French interest group activity. What is essential, however, is accounting for the remarkable growth of interest group activity and understanding the sources that it sprang from. The number of interest groups created annually doubled from 15,000 to 20,000 in the 1960s to more than 30,000 in the 1970s to over 40,000 in the 1980s (Borne (1990), p. 148; Wilson (1987), p. 15; Mendras (1991), p. 141). They now include 20 to 25 million people--an unprecedented expansion of this form of association.³ This vast increase in interest group activity and the social basis for it must be understood if their social role and political functions are to be explained. This is essential because, as Wilson (1987, p. 6) says, the interpretations of French associational life that were empirically-grounded in observations of the France of twenty years ago "do not reflect the remarkable social and political changes in France since that time."

B. The New Portrait of French Society

Few nations have experienced a wholesale inversion in occupational structure, massive increases in material achievement, and profound physical migration as rapidly as did France in the quarter century following World War II. Only Japan urbanized more quickly, and as Singer (1980) says, no Western nation lost its peasant base faster. While industrialization was spread over 150 years in Britain, in France much of the experience was concentrated and focused in a very brief historic moment.

³ Borne (1990, p. 148) reports participation of more than 20M people in private associations, while Williams and Mills (1986, p. 153) say that more than 25M "belong to at least one association." The estimate in Gaborit (1989) of one in three French citizens is slightly smaller; Mendras' (1991) figure is one in two. What is clear is that it has grown considerably. Thus, while a 1977 poll found 52% of respondents claiming to belong to at least one association this was an 11% gain over a similar poll taken 25 years earlier (Wilson (1987), p. 14). The current figure in Mendras (50%) is compared with a 28% baseline result found in 1967 (Mendras (1991), p. 141).

"One generation," writes Borne (1990, p. 8), "lived the most radical modernization France had ever known in its long history."⁴

These economic and social changes marginalized the major French institutions of social integration such as the church and the army and produced a demographic structure quite unlike any France had ever known. Old institutions such as the educational system took on a new importance, and new institutions such as the mass media became important means by which citizens, and especially those in the new occupational categories, were socialized. Private voluntary associations took on new meaning as a path for members of these new social categories seek inclusion in French social and political life.

Four principle measurements show the depth and rapidity of these changes: occupational categories, geographic mobility, population growth, and increases in output, productivity, and national wealth.

Huge changes in occupational categories are the most visible, as Ashford (1982) puts it. In 1939 peasants still comprised the largest social category (Singer (1980, p. 162), making France at the start of the war "the most peasant of all Western nations" (Mendras 1991, p. 15). A quarter of the workforce was employed in agriculture, and 45% of the population lived in rural areas. Agriculture employed the largest portion of the workforce in 1944, and although in long-term decline was still higher in 1946 than it had been ten or fifteen years earlier. As Hoffmann (1981, p. 3) writes, "the French in 1946 might conclude quite reasonably that agriculture not

⁴ Principal sources for post-war changes in French society are the general works such as Hollifield and Ross (Eds.) (1991), Hall, Hayward and Machin (Eds.) (1990), Wright (1989), Hanley et al (1984), Ehrmann (1983), and Hayward (1983). Major works specifically on French demography are Mendras (1991), Borne (1990), and Hantrais (1982).

only was remaining the most important economic sector but that its lead was increasing."

Yet, by 1962 agriculture had become the least important sector, placing a weak third place (19.6% of the labor force) to industry (43.4%) and services (37.1%) It contracted at more than 1% a year, almost 15 times faster than during the previous 45 years (Hoffmann (1981), p. 3). Policies to promote farm consolidations and to apply technology to production were largely responsible for diminished employment, which was coupled with large increases in productivity. By 1986 fewer than a million agricultural workers (a sixth of the number forty years earlier) produced twice as much as in 1946, making France not only self-sufficient despite a huge population increase, but turning it into the largest food exporter after the US (Mendras (1991), p. 17). Fewer than one worker in twenty is now employed in what a generation before had not only been the principle employment category in France but cultural milieu, a way of life, and the social foundation of both the Second Empire (1852-70) and the Third Republic (1870-1940) as well (Derbyshire (1990), p. 17; Mendras (1991), p. 16).

An industrial labor force had been growing since the turn of the century, but as it became the dominant labor category it was subject to "structural and technical changes" that would "transform its conditions of existence out of all recognition" (Mendras (1991), p. 24). While industrial workers were 87% of all those employed in industry in 1954 and clerical workers only 8%, by 1985 clerical workers made up 27% of those working in industry. At the same time, overall industrial employment declined from a peak of 40% of the workforce in 1962 to less than 30% in 1988 with some industries, such as iron and steel, showing especially dramatic contraction (Mendas (1991), p. 25).

The third category of the working population to decline was independent business people and artisans, whose numbers were halved from 1954 to 1988. It was particularly in defense of small shopkeepers and protection the rural community's way of life that gave rise to the rightist Poujadist movement of the late 1950s.

The social categories rising in importance were essentially white collar professions requiring education or training. The number of higher level executives and professionals grew fourfold from 1954 to 1988, while the number of middle level executives doubled and salaried employees grew more than 50% (Mendras (1991), p. 35). Within these categories the growth of the so-called "new" professions could be seen: engineers went from .4% to 1.2% of the population, technicians from 1% to 3.5%, and teachers, researchers and high level workers in the social service and medical fields made up 6.5% of the working population by 1975 after having registered yearly annual increases of nearly 10% since 1968 (Lipietz, 1982).

The changes in employment categories may also be seen in terms of geographic mobility. In 1921, France was only 26.4% urban, by 1946 about half urban (53.2%) and by 1967 it was 67.2% urban, reaching nearly 70% in 1982 (Singer (1980), p. 163; Hoffmann (1981), p. 4; Borne (1990), p. 8). In the 1960s at the peak of the rural exodus 100,000 people moved to cities annually (Mendras (1991), p. 16). From 1954 to 1962 a fourth of the population moved to a new commune, more than half of them to a new department or region (Borne (1991), p. 44; Pinchemel (1986), p. 150).

Paris has continued its domination as an internal destination. One in six people lives in Paris, a quarter of the non-agricultural population. While the UK has five cities of more than a million inhabitants other than London, France has only two (Hantrais (1982), p. 19). Yet, in-migration to Paris has been nearly balanced by out-migration to other areas and it is the second tier cities that have shown the strongest growth. Despite more than a half a million people changing places, the Paris region

grew only slightly (41,890) as a result of internal migration from 1954 to 1962, the year in which it peaked with 29% of France's urban population. Paris rested in stasis between 1962 and 1968, then showed a slight loss (23,885) between 1968 and 1975 (Pinchemel (1986), p. 155, 553). Montpellier, for example, has grown from 90,000 to more than 300,000 in thirty years, and Grenoble even more more dramatically (from 80,000 to 400,000 from 1945 to 1975) (Ardagh (1987), pp. 148, 150). It is important to note that while France is highly urbanized, half the population lives in political jurisdictions of fewer than 25K inhabitants (Mendras (1991), p. 45).

And this population has not merely shifted, but grown tremendously: twice as fast in the two decades after World War II than in the previous hundred years (Ashford (1982), p. 27). The population grew from 40.3M in 1946 to 55M in 1985 (Borne (1990), p. 8). Like the US, France experienced a post-war "baby boom." The percentage of the population under 20 years old grew from 28.9% in 1936 to 33.1% in 1962 (Borne (1991), p. 28). The birthrate shot up sharply sooner than in other European nations, lasted longer, and "was more important in France than in other European countries" (Mendras (1991), p. 179).

The educational system was heavily burdened by this growth, which gave it responsibility for almost three times as many students in 1967-8 as it had had in 1956-7 (Borne (1991), p. 53). University enrollment in 1978 was four times what it had been 20 years previously (Ashford (1982), p. 27). In addition to the increased birthrate, other sources of population increase were immigration, which Hanley et al (1984) estimate as worth a third of the post-war population gain, and the "return" of 1.3 million French and Algerians--some of whom had never lived there--to *la*

métropole (metropolitan France) following Algerian independence (Ashford (1982), p. 29).⁵

The success at increasing productivity and output have had as their consequence a large increase in national wealth. In constant value currency, French gross domestic product almost tripled between 1946 (\$511) and 1962 (\$1,358) while purchasing power doubled (Hoffmann (1981), p. 4). In the decade of the 1960s, GDP doubled again (Derbyshire (1990, p. 28). By 1965, the French gross national product had doubled its 1950 output, and even if industrial growth was slower in the period after 1973 it was still was more robust than the UK, the US, or West Germany (Hanley et al (1984), p. 24, 65; Borne (1991), p. 41). In the thirty years following the war, French income multiplied five-fold and productive capital tripled (Mendras (1991), p. 6).

As a result of these massive and interrelated changes the nation's social structure has been completely transformed: the peasantry and bourgeoisie have disappeared and the industrial working class is in decline, while tertiary sector growth has created a class, *les cadres*, that did not exist a generation ago.⁶ This is the privileged social class of the post-industrial prophets who look to it as the dominant force behind social and political restructuring, the vanguard of a new "post-industrial" order. As Mendras (1991, p. 44), one of the closest observers of French social change, writes, it is "difficult to overestimate" the impact the "cultural liberalism" of

⁵ Despite this growth, it is still possible to see France as underpopulated. Although it has more than twice the surface area of either Britain or (West) Germany it has fewer people. Compared with the German density per square km of 249, or the British figure of 229, France at only 97 appears quite rural. As Hantrais (1982, p. 6) says, "If the population density of France were the same as that of Germany, it would have more than 136M inhabitants, and this could radically alter the whole political balance of Western Europe."

⁶ see Appendix for the way *cadres* is best translated.

this new class has had upon French social life. Among the key ways this new class have sought to influence French society has been through the creation of associations and exploitation of the mass media. For this reason, a more detailed picture of the French social structure and this class are vital for an understanding of French associational activity.

First, to define it, the tertiary sector includes those employed in services and administration but who have no direct part in production. The proportion of the French working population employed in this sector surpassed 50% in 1975, at which time it was responsible for almost half of GDP. If measured not by employment in firms whose principle activity is in the tertiary sector but by occupational classifications themselves a slightly lower figure is attained. France is below both the US and the European average for employment in this sector (Pinchemel (1986), p. 394-5).

Breaking this down into actual job classifications does not create a picture of anything with the traditional characteristics of a social class, nor support the conjecture that this segment of the population carries with it important potential as an agent of social change. A third of workers in this sector have manual jobs. The largest category within it is clerical workers, who comprise only a sixth of the working population. Two-fifths of this sector is employed by government, half of that being professors and teachers (Pinchemel (1986), p. 395, 397).

Although important in other terms--it accounted for 75% of employment expansion between 1962 and 1975, and employed two of three women--it is a sector characterized by large disparities and dissimilarities. Growth has been robust in some subsectors (property, banking, insurance, government employment) and weak in others (transport, domestic services, the army) (Pinchemel (1986), p. 401). The differences in income and social standing between the highly educated professionals at the top of the scale and shop assistants and domestic laborers at the bottom is vast. The

percentages of employment in "intellectual" professions is overall quite minor. In sum, it shows almost no social cohesiveness or sense of membership, as befits a sector that "is usually defined as a residual, containing activities which are neither agricultural nor industrial" (Pinchemel (1986), p. 395).

Yet, according to Mendras (1991), the *cadres* are the core of a "central constellation" that also includes teachers, civil servants, engineers, most technicians, and most salaried non-manual workers that has influence far beyond their numbers. They have become "a new focal culture which is the central reference point for all of society." It is crucially important because it "exercises a hegemonic influence, imposing its lifestyle and attitudes on other categories of the population" (p. 41).

Within this central constellation is an "innovative core" who have been labelled by sociologist Emmanuèle Reynaud as "moral activists," to distinguish them from political, religious, or union activists. Mendras calls their ideology "cultural liberalism" which has more in common with the left than with the right but which shouldn't be confused with traditional leftist ideology. Instead of placing emphasis on the distribution of wealth or other quantitative demands, attention instead is given to "quality of life" issues such as cultural heterogeneity, environmental defense, and above all participation in decision-making. Mendras calls it "a new belief-system, invented by...the 'innovative core' of the central constellation" that has successfully influenced other groups (Mendras (1991), p. 43-4). Many of these activists are graduates of the universities who are blocked from career advancement because they were not educated at the *grands écoles*.

Not only is the "focal culture...relayed to all strata of society through the mass media," but the moral activists "occupy a powerful position within society" and "dominate the tissue of associative groups which have proliferated in all spheres of French society" (p. 44-5). Although a decade ago analysts of French social and

political life predicted that the Socialist Party's coming to power would allow these activists to "become the new political class" after having already successfully assumed social and cultural leadership, "this has not materialized." Mendras calls the failure of Socialist economic policy in the first two years of the Mitterrand government "a historic setback" in which they "lost, probably for good, their temporary grip over political power" (p. 45).

While stymied in capturing the institutions of state power, Mendras finds their influence profound in other areas, especially associative life. In particular they are

able to exercise a preponderant influence in local associations, parishes, or political parties, which they are able to shape in their own image...Their power can thus be found at the micro-level of local associations and pressure groups, rather than at the macro-level, at the summits of the state...the importance of these micro-institutions must not be underestimated (p. 46).

Through the creation of associations and the dissemination of new ideas they are able to attract media attention, "which can itself be seen as a sort of political power."

Mendras explains the motivation of these activists to engage in associational life as primarily self-expression and personal fulfillment rather than stemming from the desire to improve collectivities of which they are a part. In his analysis, "the unprecedented development of participation in voluntary groups of all sorts" has given collective action and associative groups a "new importance" that has "modified traditional patterns of authority" (p. 240, 241).

To conclude, the substantially changed French social structure has radically altered French associational life. Due in part to their inability to exercise influence by other means (such as through politics at the national level) and in their workplace (due to the lack of the principle qualifications for advancement to the highest levels), a key component of the French social structure are responsible for the unparalleled growth in French associations.

C. The New Groups and their Influence

If we dwell upon this analysis it is because it is so profoundly at odds with what Mendras (1991, p. 239) calls the "superficially attractive portraits of French culture" that American observers in particular have produced and which he now finds "totally anachronistic."

Mendras's analysis is supported as well by Hanley et al (1984, p. 108), who also challenge the classic interpretation of French interest group activity. While recognizing that French political traditions mitigate against a permanent universe of well-organized and stable private associations, Hanley et al insist that this interpretation "is probably less true now than at any time" (p. 109).

In terms of the social description of participants in associational activity the description given by Mendras (1991) is confirmed by others. Hantrais (1982, p. 172) shows membership in associations to be "more characteristic of men than women," and an activity that "decreases with marriage and is more common in better educated social categories and the higher socio-occupational groups." A study by the *Centre de recherche et de documentation sur l'étude et l'observation des conditions de vie* in 1980 found weak participation by workers (31%) and strong participation by *professions libérales* (71%) and *cadres supérieurs* (78%). The study found that only 28.2% of those without higher education belonged to an association while 71% of those with higher education belonged to one (Borne (1990), p. 149).

The most detailed survey of the landscape of French interest groups is provided by Wilson (1987), which is the only large scale study of overall associational activity in contemporary France. It details "the points of interest group access to the political process, their strategies, and their methods of wielding influence" (p. 7). He finds, unsurprisingly, that occupational groups are the best organized. Among the those promoting the interest of an element of society that is not primarily defined by

its economic role the most important ones are those who either receive or would like to receive certain governmental benefits.

The leading occupational groups are, of course, the labor unions. Yet, he finds that in the face of declining membership and other measures of organizational strength the labor unions were unable to profit from the coming to power of a Socialist government in 1981. Although given unprecedented access to the ministries, the "worst bickering in thirty years among the perennially disputing rival unions," made them "unable to profit from the presence of a friendly government" (p. 91).

In the non-occupational category he finds veterans, students, parent-teacher groups, family associations, and women's groups among "the most prominent and durable" (p. 51). After examining the organizational structure and goals of groups in these and other areas he concludes that both narrow and broadly focused groups "are relatively small, poorly financed, and weakly organized" (p. 70). Only the parents' organizations and environmental groups have been able to successfully mobilize supporters, but only in response to immediate threats of unwelcome governmental action. He concludes that the "continuing extreme pluralism in French interest group politics" is aided by a state that incites rivalries to keep them divided. And as a result, while the number of political parties has been substantially reduced, "there is no parallel simplification in the world of interest groups" (p. 119-120).

Aside from their growth and their social basis the crucial question about their activities is how much of it is politically relevant, a subject on which there are several conflicting interpretations. In general, the interpretations that see this phenomenon as politically important focus not upon the nature of goals of the associations but the fact that they organize without the state's intervention. Although they have been a key recruitment pool for the selection of new local elites few of these groups have explicitly political objectives.

Only a small number of these associations are interest groups in the sense of having politically-oriented goals. Most are clubs, and many are businesses for whom not-for-profit status lends credibility to their efforts. In a census of groups created between 1975 and 1990, the *Conseil national de la vie associative* (CNVA, 1992) divides the 655,400 associations created in that period into 57 categories, only about four of which cover political goals. Political clubs and campaign organizations comprise only 2% of the total, while groups concerned with international relations and environmentalist groups each make up another 2%, anti-racism groups and those that defend the rights of immigrants are 1.5% of the total, and consumer-oriented groups are less than half a percent. Thus, on the basis of the goals for which these groups are organized, less than 10% of them may be considered political. Hantrais (1982, p. 172) looks at the goals of these groups and finds only 3% involved in cultural associations, 3.6% in trade unions, and 0.8% involved in a political movement.

Yet, examination of their goals is often not the way in which their political relevance is evaluated. Without knowing precisely how much of this associational activity is political, Wilson (1987, p. 15) writes "there is reason to believe that a desire for greater political involvement has played an important part in the increased group activity." He ascribes particular importance to the ascent of the Socialist Party and their capture of municipalities, which then used public resources to support a network of local associations that helped institutionalize their electoral control.

Williams and Mills (1986, p. 153-4) also argue that the purposes the associations are aimed at should not be used to classify them as political or non-political. The group may be focused on wildlife protection, land or building conservation, consumer or neighborhood protection, or even the preservation of local folk customs. "But the diversity of their plans of action," they write, "should not conceal their common trait--this sudden increase in the number of associations and

their large membership translates a need on the part of large sections of the population to take active part in community life in ways other than the usual membership of a political party or trade union."

For the most part, the relevant distinction of whether one finds these groups to be politically significant or not is whether one is looking at the national or the local level. Most of the new groups and new associations with a focus on civic life have local politics as their orientation rather than national institutions. According to Wilson (1987, p. 51)

The few attempts to produce national coalitions of these neighborhood associations or citizen-action groups or cultural organizations have been politically motivated as one party, usually the Socialist Party, has tried to unify its local groups for partisan purposes. Such efforts have been short-lived and unsuccessful.

Borne (1990) confirms this local orientation, and Mendras (1991, p. 142) makes much of it. While the great social movements such as feminism, environmentalism, and regionalism may have declined at the national level "almost to the point of extinction," the activism they inspired has heightened local identities and involvement in public life through associations, through which people "are more willing to participate in local public affairs than ever before."

Ardagh's (1987, p. 309) observation of the phenomenon of an increase in associational activity leads him to conclude, in fact, that attempts to link these groups to partisan political purposes mitigates against their growth:

...a great many ordinary French people today are sickened and revolted by the constant dragging of politics into the non-political, and this is one of the main reasons why so many of them withdraw into their own circles of privacy and why community activity in all its forms remains so fragile and so ill-attended in France. Political association is the enemy of *les associations*.

He calls the increase in associational activity "a most significant trend," reporting that "the French themselves, at least, believe there has been a change" (p. 303). Yet, he calls the movement "tenuous and fragile" (p. 301).

When focus turns instead to their impact on the national level it is characterized by all observers as either marginal or inconsequential. Numerous groups are invited to membership in the Economic and Social Council, which was created during the Fifth Republic as a means of institutionalizing interest group discussion and advice on bills coming before the parliament. It is but one of what Hayward (1983, p. 60) calls "a massive but unobtrusive proliferation of consultative bodies, which have collected like barnacles around the bulk of official decision-making bodies."

Various private organizations are recognized by the state as official representatives, and in essence their participation in these consultative bodies is rewarded with official recognition that acknowledges their legitimacy as spokespeople and comes with subsidies for their activities. Hayward sets the number of consultative bodies at 15,000, but dismisses them as "tools of legitimation" that are run by state representatives and essentially dormant until needed by the authorities to validate their decisions. Hayward finds in this relationship an explanation of the role interest groups play on the national level of French politics:

By multiplying consultative committees whose powerlessness means that they are unlikely to resolve conflicts, the government encourages each sectional interest to respond to its unilateral decisions by uncompromising obstruction, which only confirms the government in its belief that change has to be imposed (p. 64).

He concludes that the state is so strong under the Fifth Republic that "the peak organizations are more like pressured groups than pressure groups," because the state can easily play them off against one another. Wilson's study (1987) of the universe of French interest groups also characterizes them as highly diffuse and weak, less focused upon influencing the state than in competing with one another for members.

So while gaining visibility and membership, French interest groups are still struggling for validation and standing against a formidably unified and entrenched organizational opponent: the state. They won, for example, a key victory in 1971 when the Constitutional Council (which decides the constitutionality of parliamentary legislation) ruled that the right to form an association cannot be subject to advanced authorization, as the government had sought (Hayward (1983), p. 141). Yet, even this success can be read as an indication of the tenuous place they occupy in the universe of French political forces.

While acknowledging the growth in voluntary association, Hoffmann (1981, p. 472-3) cautions against an interpretation that assigns to them more actual power than they possess:

[T]hey still have to fight to have their legitimacy acknowledged. The defense of group interests against arbitrary or damaging public action is traditional; but joining forces to do voluntarily what public action is empowered to do or considers to be within its own domain remains problematic. Voluntary associations have frequently met strong resistance, not only from the state, but also from local governments, already limited in scope and means, and distrustful of citizens whose activities seem to interfere with its own. Failing to dislodge and replace the state or local government, many associations become pressure groups aimed at obliging public authority to take desirable measures--thus confirming its privilege. Moreover, since they often have trouble obtaining sufficient financial support from their own members, or from people who hope to benefit from the groups' activities without paying for them, occasionally they depend on subsidies from the very powers they pressure and denounce.

Their relative powerlessness despite their increasing visibility is supported as well by others.

Hayward (1983, p. 11) also acknowledges their growth in membership but does not see the expansion of associational activity as sufficiently powerful to change historically well-established patterns of politics:

The 1970s surge in the number and assertiveness of voluntary associations has not overcome the habitually negative attitudes toward freedom, liberty being conceived as fundamentally a matter of non-commitment, an antipathy towards authority so complete that any involvement with it is shunned.

Although he sees "a great and growing variety of voluntary associations" they have been unable to overcome a civic culture in which "freedom is fundamentally a matter of noncommitment, not the opportunity to promote common aims by joint endeavor." As a result, he sees French citizens as remaining "obstinately ambivalent" (p. 55).

Even those who are most positive about the growth in associational life are hesitant to ascribe power to it as a force in national politics. The social movements that swept the Western nations in the 1960s such as feminism and environmentalism "placed new items on the agenda that existing institutions were able to absorb and articulate," as Mendras (1991) puts it, and did not in France become mass membership political lobbying organizations. "There is no French equivalent," writes Wilson (1987, p. 66), "on the national level to the American public interest group phenomenon of the 1970s characterized by Common Cause or Nader's organizations," the best equivalent being "weak and ineffectual" consumer and environmental groups.

And in terms of efficacy on the local level, "the leaders of these movements have acquired positions of social and political responsibility and have themselves become *notables* in the institutions they previously fought against," as Mendras (1991, p. 228) explains. Borne (1990) interprets the increase in associational activity as having "permitted the integration in the new society of the newcomers" in local political life, that now is showing signs of "running out of breath" as a movement:

Those who thought it would be an alternative movement and become a matrix for a new society have been disappointed. The new middle classes are now integrated into the local political fabric. In this the associations have fulfilled their role. And among them the tendency is without question more informal expression of individuals than the

assemblage of militants. The signs of social withdrawal are unmistakable (p. 149).

He concludes that the most solid groups are no longer structured around work identities but around generational or cultural ones that do not, for the most part, seek to work through politics or by influencing the state.

The key element, as Zysman (1972) points out, is not at bottom the lack of interest group activity as a mass scale phenomenon in France but the state structure such groups confront. Instead of having a state divided functionally and geographically that they can capture pieces of, as do American interest groups, French interest groups are far more often captured by an organizationally cogent and unified state and manipulated to serve its purposes. Wilson (1987, p. 227) summarizes his research by concluding that "most French interest groups are weak in terms of membership, cohesion, and financial resources compared to British or American interest groups or groups in other industrial democracies." Due to the strength of the state, its monopoly on the symbol of the general interest, the plurality of groups and the state's ability to play them off against one another, and the expectation of disagreement among them, "French groups are less likely to impede or even affect government action...in comparison with interest groups in other Western industrial democracies" (p. 240).

D. Associations and the Media

To the picture of relative weakness in terms of organizational characteristics and political influence may be added an analysis of the communications practices of French associations. Even the most dynamic associations are somewhat marginal communicators with only intermittent access to major media.

A 1989 study (CNVA 1989) of 152 national associations provides a baseline of their communications practices. About half of these associations had less than

5,000 members, while a quarter had more than 50,000 and a tenth had more than 300,000. Communications activities play an important role in these associations. Of an average overall budget of 31 MF, a fifth of these budgets went to communications and a fifth of these organization's revenues came from "communications products." More than half of them had an internal service dedicated to communications, which was "not just an essential activity but also a privileged sector of development" (p. 43). Although almost all engaged in public communication, two-thirds of communications budgets were spent communicating with members.

Half of the associations reported using radio, public meetings, and internal publications to communicate with the public, while about two-fifth's engaged in some television or paid advertising. Only a tenth participated in telematics. The associations showed

a marked preference for obsolete means of communication (mimeographs and self-produced videos) to better-performing media which were seen as susceptible to modifying the association's objectives (p. 66).

These organizations felt "neglected and powerless" relative to the mass media, which were seen as largely inaccessible:

television being judged by all as a medium of exclusion, the national press being an occasional exception, and local private radio as a major deception that failed...(p. 74)

The study concluded that "many associations have neither the means nor the competencies required to conduct effective public communications" (p. 106).

In conclusion, while the number of French associations has increased, they continue to be weak in terms of their organizational capabilities and finances and suffer (outside of some notable exceptions) from low public profiles and minimal exposure in major media. This is the essential context with which to analyze the participation of these associations in telematics, which reflects the same weaknesses.

II. French Associations Online

The hope that the development of telematics would enhance associational life was explicit from the beginning of the *Programme Télétel*. As the Nora and Minc report (1981, p. 10-11) asked,

Are we headed...toward a society that will use this new technology to reinforce the mechanisms of rigidity, authority, and domination? Or, on the other hand, will we know how to enhance adaptability, freedom, and communication in such a way that every citizen and group can be responsible for itself?

Through associational use of telematics, as an early study put it

the users become the producers of information. The transmission of this information gives them access to one another. Information circulates in groups and for groups. Technical interactivity functions as social interactivity (ADELS (1983), p. 72).

Yet, as the first evaluation of the early telematic experiments observed, while "theoretically the associations were to figure in each videotex experiment, the results were catastrophic everywhere" (Charon and Cherki (1985), p. 29). Only two of the leading unions (CFDT and CGT) and the Catholic Church proposed services at Vélizy, which were "quite limited and neglected by the public. In the years following Vélizy, Charon and Cherki (1985, p. 29) conclude that "extremely few" projects were proposed. "Most large associations have gotten lost in extensive projects for databases that are frighteningly costly and have uncertain publics." While telematics "can be used for resistance and autonomy," Charon wrote elsewhere (1984), "it must be siezed by the local actors themselves." Instead, he found most of the associations involved in the medium to be those created to do so.

Perot (1988) also looked at the telematic activities of French associations. He also found that very few had tried and those that had were negative examples. When they did participate, such as in massive local efforts such as in Nantes (see the

previous chapter), their participation remained passive even when subsidies were involved. He focuses upon *Aspasie* (detailed below), saying that outside of this one example, most associations can get a greater public impact from an attempt to create a local radio station than they can from involvement with telematics. As a result, "associations appear by this frame of reference to be 'out of the game'" (p. 39).

In the boom period of French telematics a great number of associations created services. Some of these, such as those of the leading anti-racism organization *SOS Racisme* and a widely-known feminist organization called *Dialogue*, no longer exist.

The twenty examples below, listed in Table 17, are divided into political activism, unions, social services and community organizing, and religious identity. They show in detail both how the medium has been exploited by associations attempting to use it and the obstacles they have confronted.

Table 17

Associational Telematic Services Analyzed

<u>Organization</u>	<u>Service Names</u>	<u>Operating 1992?</u>
<i>Centre d'Information et d'Initiative sur l'Informatisation</i>	Terminal, Alternatik (alter)	Y
<i>Association pour l'Autogestion par des Systèmes Informatique Eclatés</i>	ASPASIE, Euro77	Y
Amnesty International	Amnesty	Y
<i>Mouvement pour la Paix</i>	MVP	Y
student organizing committee	Fac	N
<i>Concolta Naziernalista</i>	Rimbombu	Y
<i>Paese</i>	Paese	Y
<i>Union Démocratique Bretonne</i>	UDB	Y

Table 17 (continued)

Associational Telematic Services Analyzed

<u>Organization</u>	<u>Service Names</u>	<u>Operating 1992?</u>
<i>Confédération Française des Travailleurs</i>	CFDT, CEDETEL	Y/N
<i>Confédération Générale du Travail</i>	CGT	Y
<i>Coordination Nationale Infirmière</i>	Coorditel, CNI, CIMP	N
<i>Collectif des Assistants Sociales d'Ile-de-France</i>	CASIF	Y
<i>Coordination Nationale des Collectifs d'Assistants de Service Social</i>	CONCASS	Y
<i>Syndicat National des Enseignements de Second Degré</i>	SNES, USTEL	Y
<i>Fédération de l'Education Nationale</i>	FEN	Y
<i>Force Ouvrière</i>	FO	Y
<i>Fédération des Centres Sociaux et Socio-Culturels de France</i>	CSX	Y
<i>Confédération Syndicat de Cadre de Vie</i>	Abita	Y
<i>Centre d'Information et Documentation Religieuse</i>	Gabriel	N
<i>Confédération du Renouveau Français</i>	Renouveau	Y

A. Political Activism

1. Alternative Politics: Alternatik

The leading attempt to use telematics to promote and strengthen alternative politics comes from *Le Centre d'Information et d'Initiative sur l'Informatisation* (CIII), which was formed at the end of 1979. A group of previously unrelated people

with backgrounds in politics and/or technology, they organized a conference entitled "Computerization against Society?" as a challenge to the recently-released Nora and Minc report. Afterwards they formed CIII and launched a magazine called Terminal 19/84 to focus public debate upon the social and political implications of computerization. They launched their own Minitel service in 1985, which at first was called "Terminal" and later became "Alter" (for Alternatik). They thus have experienced telematics not only as critics but also as participants. Their history shows the movement of a current of thought in leftist politics from opposition to telematics in the early 1980s to the exploration of it as an alternative informational medium in the middle and late 1980s to the virtual abandonment of telematics in the early 1990s.

In 1981 (Number 6, p. 6), the editor of Terminal Jean Tercé criticized the telematic program as "imposed upon the French in a totally technocratic manner, this medium of which no one knows the effects and for which no one has asked." Tercé also criticized the telematic program because information routinely distributed by telephone might be available only on Minitel in the future, and because it inhibited browsing when searching for related information, arguing that the greater selectivity afforded by telematics would mean that information that would have been seen by accident while perusing a print publication would not be seen in a telematic journal.

In late 1981 and early 1982 the first messengeries began to appear as experiments. At the same time the first observers to view the telematic program more positively began to contribute to Terminal. "Some of us said at the beginning that telematics risked harming human relations," wrote Henri Salle in issue number 9. "Now it seems that precisely the opposite is the result. Instead of leading us to block ourselves off behind our screens, it allows us to open ourselves to others." He hoped that this quality was not merely because of the experimental nature of telematics.

Issue number 10 (Fall 1982, p. 32) also carried an editorial on telematics that cited its enormous potential for horizontal communications. Yves de la Haye asked readers not to see telematics solely as a medium for the consumption of products but also as one that could be adapted to the task of organizing people of who shared common concerns.

In issue number 11 (December 1982, p. 30) there was a full fledged discussion flowing in the pages of Terminal about the potential social applications of telematics. "Associations, local groups, unions, etc. can also, if they want, experiment with alternative ways of communicating," wrote Georges Festinger, citing in particular the virtual elimination of space limitations in telematic journals compared to print ones.

By 1984 the group's print publication was solidly established and some members sought to attempt a telematic service as well. It offered a telematic magazine of brief articles on the general theme of computers and society, bulletins posted by various alternative political groups, an open messagerie, and a number of games.⁷ The service was offered via a directly dialed telephone number rather than on 3615, which was considered too expensive. This meant, however, that the service was substantially more expensive for callers from outside of Paris. The service was expanded somewhat later in 1984 by the addition of classified advertisements of items for sale or trade and by the opening of electronic mailboxes.

The first issue of 1985 (Number 22) was devoted almost entirely to telematics.⁸ Julien Delarue expressed some of the resentment that a number of people felt toward the telematic program. To his view it was "disconnected from needs or desires of consumers....Instead of producing what people wanted to buy, we are

⁷ The first announcement of the service appears in issue number 24, p. 22.

⁸ In 1985 the magazine dropped 19/84 from its name.

consuming what industry has found profitable to produce." He expressed the opposition of people who felt forced to use Minitel when they needed to look up telephone numbers, consult train schedules, etc. Another essay said that rather than bringing a family together, as did television, this medium served to push them apart. Young people might be comfortable with it, but it intimidated older people and made them feel outdated and unmodern. Of the municipal service in Nantes called Telem, the best that could be said of it was that it existed. It was used because when it was introduced in early 1982 there were few other services available. "Telem exists," wrote André Malot, "but not yet the need."

In mid-1985 the Terminal group joined with a number of different associations that had shared air time on *Radio Tomate*, one of the many pirate radio stations that had been started toward the end of the 1970s. The reorganization of the airwaves that accompanied the legalization of private radio in France had the effect of killing off *Radio Tomate*. Many people in participating groups (organized around concerns such as ecological issues, anti-racism, the status of women, prisoner's rights, the rights of psychiatric patients, a multi-cultural restaurant, and others) were also involved in the organization of Arc-en-Ciel, an attempt to build a "red and green" coalition of leftist groups in anticipation of the European Parliament elections.

Just before the summer of 1986 the Minitel service "Terminal" became "Alter." The creation of the new service cost approximately 30 KF (paid for by the member associations) and from the start it was placed on 3615 so that it would be independent and have its own revenues. About twenty different alternative political groups used the system, which included a calendar of upcoming events, pages presenting the associations to potential members, and extensive debates on public issues. The telematic magazine included sections devoted to science and technology, employment and unemployment, the arts, women, immigration, North-South relations,

the law, health, and education. It was promoted (particularly in the magazine) with the slogan "*Le Minitel des passions et des solidarités*."⁹ Listings of alternative doctors, lawyers, and other professionals were also available.

The service was most actively consulted after the right came to power in 1986 and a wave of strikes and demonstrations began. A concerted effort was made in 1987 to get striking nurses to use the service. They used it to distribute the results of negotiations and schedules of upcoming demonstrations. The nurses were an ideal constituency, reports Bernard Prince, who was a member of the collective. "They had Minitels at their workplace, were used to keyboards, and could have access to the service at any time of day" (personal interview, April 1992). During this period the service surpassed 1000 hours of consultation a month.

There were other occasions that generated substantial usage, such as a television show on psychiatry that mentioned the service and saturated its incoming lines (20) for a week, generating about 500 connect hours for the month. But more generally the service generated about 300 hours a month from 1988 to 1990 and served about 20-25 left-leaning associations. A generous agreement with the company that hosted the service on its computer (by which Alter received 50% of the income coming from the connect time the service generated, without a monthly minimum) gave it an income of about 4000 F/month. Most of that (3000 F) went to the salary of a permanent worker.

Regular meetings were held on Mondays to keep the service alive and animated until about the end of 1990. "We tried to renew it," says Prince, "but lots of associations and political movements had begun to run out of steam. We were a victim of the fall of the Berlin Wall, which put the ideas and hopes of the extreme left

⁹ An classified advertisement sent to Libération was refused since Libé would not allow advertising from telematic services that competed with its own.

in question." In particular, an attempt was made to link the service with a group called *Les Media et la Guerre* during the Gulf War. A section of the service was created for them to be used as a means resisting the manipulation of the mass media by allowing participants to instantly send counter-information, but it remained essentially unused.

In 1991 they let go the employee who had worked full time on the service, whose duties have been taken over by a contentious objector who gives it much less attention. The service now gets only about 30 hours of consultation a month.

Eric Braine, one of the founders of the organization, the magazine, and the Minitel service, calls Minitel "a pleasure-giving machine that blurs the distinction between the real and the imaginary." The limitation of telematics, he says, is that "people are not so interested in political questions themselves, but in what is personal and private. But of course the relationship between men and women is both private and quite political" (personal interview, June 1987). Only very occasionally did discussion on the service itself touch upon this. "Debate at the meetings," says another founder, Edgar Blaustein, "was often more interesting than the service itself" (personal interview, April 1992).

Blaustein believes that the calendar of events was the most successful part of the system and the most widely consulted. "We were always trying to simplify the system," he says. "We would create a new subservice for a different association almost every month, but it would live for only a few months at most." Prince believes the service will be resuscitated by a reinvigorated left, particularly given the strong showing by the environmentalist movement in the 1992 cantonal elections. And although the service is only barely breathing, it was possible to find on it in the Spring of 1992 a lively and active discussion among members of the nurses union. Some of the most active members also consulted Alternatik despite the fact that their

union also had a telematic service. On the union's service, as one message on Alternatik reflected, "there is no place to conduct a debate."

2. Local Participation: Aspasia

By any measurement Aspasia is the foremost attempt to enhance participation in local community life by means of telematics. According to its charter, its goal is "to develop local democracy by using the appropriate technological tools." It has had the time (it celebrated its tenth anniversary in January 1993) and the resources (substantial financial subsidies and organizational support from local and national sources) to succeed at this task. However, at best it can claim a very modest, even negligible impact on the activities of citizenship and public affairs in Val-Maubée, which is part of the new town of Marne-la-Vallée, 25 kilometers to the east of Paris in the *département* of Seine-et-Marne.

Its name means *Association Pour l'Autogestion par des Systèmes Informatiques Eclatés* (Association for Self-management by Distributed Information Systems), but Aspasia was also the name Pericles' lover, who exercised considerable influence upon Athenian democracy despite being both a woman and a foreigner. As Scardigli (1992, p. 208) examines in detail, Aspasia was born of the enthusiasm for microcomputing in the early 1980s, and from the idea, as Aspasia's charter puts it, that "technological interactivity thus creates the conditions for a real social interactivity."

Aspasia grew out of the local branch of a computer hobbyist's club called Microtel, which wanted to demystify computing and help non-technical people take advantage of the technology. But this foundation was to be only a means by which public life in the community could be nurtured, one of its founders calling it "a social and cultural project before being a technical one" (Loiseau (1984), p. 227). It focused upon providing support for the 450 local associations, offering them the means of

communicating to their members and to potential members. Aspasia itself would not take editorial responsibility for the content they were offering.

Considerable attention and support were given Aspasia because it was a local initiative in a new town that had fewer than 10K inhabitants in 1973 and had grown to 55K ten years later, continuing to grow by 5K new inhabitants a year.¹⁰ In its first year (1983) 132 KF was raised from the six communes of Val-Maubée, their intergovernmental organization (*Syndicat Communautaire d'Aménagement*)¹¹, and the local office of the national agency responsible for the construction of the new town (*Etablissement Public d'Aménagement*). Aspasia was housed by the *Maison du Temps Libre*, an agency financed by the SCA to nurture the development of local associations. It was also able to exploit interest on the part of national agencies in local initiatives, receiving the support of the *Agence de l'Informatique*, France Telecom, and the *Ministère de l'Urbanisme et du Logement*.

The core group of organizers established six working groups with the participation of representatives of 50 different associations. They were able to come up with a small number of telematic screen pages (a computer was lent by France Telecom for this purpose) and an outline of potential microcomputer-based activities to present to an open house in November 1983, which attracted 2000 visitors.

By the Fall of 1984 there was a rudimentary database of 400 screen pages that was available over a local telephone number, but "it was too heterogeneous to be consultable (Corbineau (1984), p. 15). There were five categories of content: administrative procedures, both local and national; local life; play-oriented elements

¹⁰ Its current population is 80K.

¹¹ In 1984 the SCA became the *Syndicat d'agglomération nouvelle* (SAN), which had relatively less power, its principal functions being to collect the *taxe professionnelle* (business taxes) and manage intercommunal activities.

(a telematic novel, telematic cartoons); messaging; and databases such as one oriented upon local educational resources.

Plans make the service available to the public by placing Minitels in public places were set aside when France Telecom began the distribution of Minitels in Val Maubée in 1985. Some 120 local associations had created screen pages by the end of 1985. The size of the available database grew enormously in April 1986 when a database on administrative procedures developed nationally by the *Service d'Information et de Diffusion* was brought online. Also in 1986 Aspasia began delivering local election results, which quickly became the activity that generated the most intensive usage, albeit for a very short time. By the start of 1987 there were 2,500 Minitels in Val-Maubuée, which had access on Aspasia to about 20K screen pages produced by more than 60 local associations and national agencies.

Until 1988 all of Aspasia's annual operating budget came from the SAN (which contributed 80%) and the individual communes.¹² This amount grew steadily from 722 KF in 1984 to 777 KF in 1988. In 1989, the SAN purchased a new host computer for Aspasia (600 KF), which now had a three person staff and was generating an average of 10,300 calls a month and 1,170 hours of connection. Its sponsors, however, wanted to reduce their contribution. The SAN's contribution declined to 552 KF in 1989 of a total subsidy of 705 KF and for the first time Aspasia ran a deficit of 80 KF due in part to expenses related to placing the new computer in service. Aspasia received a 700 KF subsidy in 1990, but for the first time resold its expertise to other organizations wishing to create telematic services (Secour Populaire Français and Amnesty International being the first). The 283 KF earned from this

¹² Because the bulk of its financing has been municipal and its target audience is associational life it straddles the distinction between municipal and associational services.

activity reached 332 KF in the 1992 budget, but subsidies still account for the major share (727 KF out of 1.0 MF in 1991 and 750 KF of 1.08 MF for 1992). To become self-financing free local access and access on 3614 were closed in 1990 and the service moved to 3615.

By the Fall of 1989 there were 7K Minitels in Val-Maubée and the installed base was growing by 250 a month. One of three households had taken one, compared with one in six nationally.¹³ In addition to a large number of purely informational services (examples include a calendar of local events and a survey of gasoline prices done by a local consumer group) Aspasia has been able, upon occasion, to generate applications at a higher level of interactivity. The most important (in terms of calls and connect time) was a service begun in 1985 by a teacher at *l'Ecole Primaire des Pyramides de Champs sur Marne* for his *classes transplantées* or classes taking extended trips to the mountains during the school year. It consists of a daily electronic newspaper written by the students on their activities and electronic mailboxes by which parents and students may remain in contact during their separation. In January 1991 it was used by more than 100 families and generated 1282 calls for 87 connect hours. With this application in the lead, Aspasia generated about 50 K calls in 1990, averaging 4,200 calls a month for 180 connect hours. Usage declined to a monthly average of 3,700 calls in 1991.

In terms of interactivity, the leading application is the *Tribune Libre*, which invites people to leave their comments. While a very small number of messages are posted (3 in January 1992, 6 in February, 11 in March), about a fifth of all callers consult this section of the service. During the Gulf War Aspasia put up a section

¹³ France Telecom has not made public a count of Minitels in Val-Maubée since 1989, but Aspasia estimates there are 10K. With 23K households in 1992 that would make Minitel penetration 43% or nearly twice the national average.

called *Prise d'Opinion* in which people could vote in favor or against the war. Although the overwhelming majority of posted messages in the *Tribune Libre* section were opposed, 72% of the nearly 200 people registering an opinion in *Prise d'Opinion* voted in favor of the war. Users may also react to local news, but few do since almost none of it is politically provocative. In an effort to enlarge their service area to the entire *département*, Aspaspie opened a new access code (Euro77) in 1991. It includes a section on tourism, since with the opening of EuroDisney Marne-la-Vallée has just become one of Europe's leading tourist destinations. But the idea of building a section of the service around local opinions on EuroDisney provokes nervous laughter from Aspaspie's Director, José Brito. "We don't have to ask them because we know they're opposed," he says, implying that Aspaspie would run great risks if it found itself used as a vehicle for the expression of local hostility to Disney (personal interview, April 1992).

Users of the approximately 200 electronic mailboxes may exchange whatever messages they wish, of course, although there is no live messagerie since Aspaspie has no *numéro parataire* (official registration as a publication), which France Telecom still requires for operators of messageries. Aspaspie spends nothing on publicity, but has inserts in three of the six communes it serves. The others are uncooperative. As one of the founders, Bernard Corbineau, has written, the local elected officials with responsibility for communication still put their energies into improvement of municipal magazines rather than telematics (Corbineau (1984), p. 19).

Like other local telematic services, Aspaspie is giving up its unique name and taking on the name of the locality that it serves. Thus, in April 1992 the access code *Marnelavallee* was added. The code Aspaspie will still work and the association will still be called Aspaspie, but publicity and the service's main menu will no longer carry that name. As for Aspaspie's impact on local democracy, Brito says "you have to see

it in its largest possible sense, the ability of people to express themselves and the associations that give them that ability" (personal interview, April 1992).

Aspasie continues (in its November 1991 newsletter) to wrap itself in the rhetoric of democracy, calling itself an "agora of our time" which has "created dialogue in the town," since "there is no local democracy without communication between citizens." It has received nine foreign delegations and a high profile visit from the Prime Minister. But as Scardigli (1992, p. 221) writes, Aspasie suffered as its participants realized that it could not "give a soul" to the new town. Its major impact upon sociability was in uniting people in real time and space to work on the project together, telematics serving as "a pretext for the birth of a local social life rather than itself causing social change" (p. 228, emphasis in the original).

Scardigli finds in this experience

the observation that repeats itself for each technology...the gap between prophesies and realizations are again confirmed: local telematics or micro-computing do not, in themselves, have magic powers to change society. Their collective usage is not sufficient to provoke active participation of citizens in local democracy. The immense majority of the population does not involve itself in the life of the service, and its many activities have had only a modest impact. More broadly, utopia is not achieved (p. 223).

He concludes by observing that while Aspasie's budget is similar to that of a local radio station, its "social impact" is decidedly less. The success it has had in generating the necessary political support rests upon the attractiveness of the ideological linkage between social and technological change, and its exploitation of the idea of interactivity, which Scardigli calls the "master word of the 1970s and 1980s" (p. 229).

Aspasie has become something different than what was imagined at the start. So although it is a much larger effort than most other associational and municipal

services, its evolution away from the goals it was created to serve make it typical of the experience of many other associations' involvement in telematics.

3. Elite Mobilization: Amnesty and MVP

Both Amnesty International and *Mouvement de la Paix* are politically-engaged associations with widely-dispersed memberships. Their central offices in Paris are concerned with strengthening their linkage with their members and providing those members with a sense of engagement. Their Minitel applications serve these ends, although in neither case is there a relationship between the organization's decision-making and the telematic service, nor do individual members have any means of communicating with one another. Both Minitel services are quite marginal elements of their organization's activities.

Amnesty International has 22K members in France. With an annual budget (1991) of 50 MF the forty salaried staff members organize and facilitate the political interventions of direct members, who communicate with the organization through its Paris office, as well as participants in its 400 local groups throughout France.

Its first Minitel service was created to serve as an response mechanism for viewers of a television broadcast of a musical tour. It generated about 800 hours of connect time in December 1988. The service fell into disuse in 1989 and was moved to a new host computer (Aspasie), where it was operational in December 1990. Although the goal at first had been simply to enable people to leave a name and address, the new service includes a list of urgent actions members can take (dossiers of political prisoners and the names and addresses of officials responsible for their incarceration, for example), a means by which people may write to Amnesty's Paris office, teaching games, and sections that allow callers to subscribe to a publication, make a gift, or order products and pay for them with a credit card. One cannot join Amnesty by Minitel because it is not possible to leave a signature confirming the

membership request. Although this is not a legal requirement, the Amnesty's top decision-makers have wished to guard this tradition.

The service received 25,387 calls in 1991 for 1,743 hours of consultation. It generated a small income in 1991, for example generating a profit of 11 KF in the final quarter of the year. Its profitability is linked to its being hosted by Aspasia, a change that considerably reduced its monthly fees (from 10 KF to 3 KF) as well as the threshold of hours it must generate to share in the revenues from its connect time.

The most heavily used part of the service is the "boutique," with which people may purchase Amnesty's products. Orders worth 100 KF were made in December 1991. In terms of the service's promotion, advertisements for Amnesty, its brochures, and its mailings all include the Minitel code. There is, however, no mention of the service in Amnesty's magazine La Chronique. Fabienne Rouby, who is responsible for the telematic service, says she is "at war" with the editor of the magazine, who views the telematic service as a competitor (personal interview, March 1991). The service receives about 5 messages a day from users which Rouby distributes to someone in the organization who can provide an answer. Responses are generally given by Minitel via a private mailbox for the user who posed the question. Occasionally, Rouby reports, people within Amnesty refuse to respond to anonymous questions that arrive by Minitel.

According to Rouby, the structure of Amnesty's membership mitigates against widespread usage. Those who by their age and profession would be most likely to use Minitel are frequently attached to Amnesty by the intermediary of a local group, while direct members (not affiliated with a group) are mostly older. Another obstacle is the lack of universality of Minitel possession and usage, meaning it cannot be used as a substitute for mail:

The groups get a big packet of information every month that they then send to their members. There are always complaints that it is too

much material and that it is too heavy. People are dissatisfied but no one tries to do it by Minitel since there are people who don't have one and because there is no way to make photocopies [of information sent by Minitel] and send it to others in the group.

Although there is no conferencing on the service, a group of electronic mailboxes have recently been created so that those associated with Amnesty in the Aquitaine region may exchange messages.

Rouby gives the Minitel service a third to a half of her time, the rest of which is taken up with other forms of internal communications for the organization's membership. She finds Amnesty's other salaried staff members at best grudgingly cooperative. "Its hard to convince people to use it. If we want Minitel to work we really need someone who works at it full time."

Mouvement de la Paix was founded in 1949. It has 8K subscribers to its monthly magazine and created its telematic service (MVP) in January 1991 at the time of the Gulf War. The original purpose was to distribute information to its membership, both its reactions to events and notices of anti-war demonstrations. During the war the service generated 3000-4000 calls/month, which has since been reduced to between 1000 and 2000. The service is entirely focused upon breaking news, which consists of items that will no longer be newsworthy when the magazine goes to press. Generally 2-3 new notices are put up each day. There is no means by which members may send a message to the Paris office, nor any conferencing, nor mailboxes. One of only two branches on the main menu offers users a "messagerie," but the branch leads nowhere.

The service is known to members through advertisements in the magazine and the organization's letterhead. It has never been advertised beyond this. Since it was created by a member who is in the business of hosting telematic services there were no start-up costs and its only monthly fees are the cost of its linkage with the data

communications network Transpac. The revenues it generates (about 2 KF) cover its costs, and it takes only about a half an hour of one staff person's time each day. It is considered "paid information for people who want to buy it," by *Mouvement de la Paix*'s Secretaire National Jacques LeDauphine (personal interview, April 1992). "We could make it so our correspondants could also send us information, and do a messagerie that would permit horizontal communication between the regions without passing by the center, but we haven't done it yet. It is a question of time and the effort it would require."

Both Amnesty and MVP stand beside the organizations that created them rather than being integrated into their activities. The direct sales of merchandise on Amnesty seems to be by far its most important organizational contribution. Yet however modest, Amnesty's average of 2,116 calls/month is nearly 10% of the number of members it has.¹⁴ MVP is similarly quiet and marginal, but its 1,000 to 2,000 monthly calls compares even more favorably to its membership. Even if higher levels of interactivity have not been exploited neither service is a drain on the organization's resources. Due to favorable agreements with their service bureaus, both are self-financing, unlike each organization's other communications activities such as the telephone, their magazines, or their mailings.

4. Mass Mobilization: Fac

Following the RPR's victory in the legislative elections of 1986, the new conservative government proposed changes in the French university system. This provoked considerable unrest on campuses and led to the creation of a Student Coordinating Committee to organize student opposition. In late November the committee called the creator and editor of *Libération*'s telematic service, Joseph

¹⁴ It is not possible to know if the callers are Amnesty members or how many different individuals called the service.

Gicquel, and requested space on Libé for a service under their own control. Gicquel agreed and by Monday, December 1 a service called "fac," short for *faculté* (an entire campus or a school within a university) was ready to be launched. To reach the service users had to call 3615 Libé, then enter "fac" to move into the subsystem dedicated to the student movement.

The service had three components. First, it provided for the exchange of private electronic mail between members of the coordinating committees in various parts of France. Second, it was used to distribute information. For example, the service included "four reasons to refuse the Devaquet bill," so-named for the sponsor of the university reform legislation. Those responsible for the Student Coordinating Committees at each fac were issued passwords so that they could post updates on actions taking place on their campuses. Interviews with student leaders and lists of organizations supporting the student movement were listed as well. The third component was a game called "Monorypoly." It took its name from the Minister of Education Alain Monory and allowed users to rate their aptitude as revolutionaries by responding to a series of questions. A number of additional features were added as the service grew, including statements from the government and the political parties, and a map of France showing which campuses were on strike.

On December 4 a million students demonstrated in the streets. Two days later a demonstrator was killed in a clash with the police. On December 8 the coordinating committee launched its first "*appel à la population*," declaring that day a national day of mourning and calling for a general strike on December 10. This announcement was posted on the telematic service prior to its being put out on the newswire of AFP, the French news agency. All the information on the demonstration that would be of interest to participants and observers, such as starting points, routes, buttons to wear

and slogans to shout were disseminated via Minitel. A forum for comments on how the movement should react to the death was also begun on December 7.

On the afternoon of the 8th Chirac withdrew the university reform proposal. Demonstrations did take place on the 10th, however, and news concerning them was updated on an hourly basis via the telematic service. The Student Coordinating Committee voted to dissolve itself the following day, and the telematic service was closed the day after that.

In the ten days the service was active, it hosted approximately 1,600 hours of consultation from "tens of thousands" of people.¹⁵ More than 3000 messages from all over France from students and others were posted on the service. Operators of the service censored approximately 10 percent of these messages as racist, incitements to murder, or because they were incomprehensible. As journalists covering the event acknowledged, the service almost instantly established itself as the authoritative source of information on the student movement. Many compared it to the role played by private FM radio stations during the events of May 1968.

This event's contribution to an understanding of the political application of telematics is threefold. First, as the students recognized, "for the first time organizers of a strike were given the means by which they could organize their action via telematics" (Dossier, p. 4). The threat that they would be able to improve upon their December 4 demonstration of about one million people by organizing an even larger demonstration on the 10th has to be included as one of the key reasons the government withdrew its proposal.

Second, the speed and interactivity of telematic communications show themselves in this application. As Marie Marchand writes,

¹⁵ This is from a 30 page dossier entitled "*Service de la Coordination National des Etudiants*," p. 4.

[T]he student revolt served to point up the Minitel's special qualities. It is a handy substitute for the old phone, since the other end of the line is always busy in times of crisis. It nicely rounds out newspapers and magazines, which can be updated only daily in the best of cases and do not accommodate commentary, except in the inevitably dreary and after-the-fact letters-to-the-editor column. Minitel offers both information and games, but above all a forum where readers can make themselves heard. It delivers up-to-date information throughout the day and invites caller reactions. In addition, there is no need to "tune in" at a given hour, as is the case for radio and television news broadcasts" (Marchand 1987/1988, p. 158/154).

Finally, the blend of entertainment and information are highlighted by this example. "People don't want to pay 1F/minute to read propaganda," says Joseph Gicquel. "Even the big services like LeMonde, Parisien Libéré, and Libé don't provide a great deal of detail, which is even less interesting when delivered by political parties. At least with the newspapers it is good writing." Thierry Daguzan, who was also involved in the creation of the service, agrees that the game created for the service was an important innovation. He cites a "game of the government" available on Libé as another example. "We want to attract people through a game which informs but also amuses them," says Daguzan. "For the public at large this is the way to attract them to political information" (personal interviews, January 1987).

5. Cultural Integrity and Political Autonomy: Ribombu, Paese, and UDB

The leading political movements seeking to challenge the unity of the French state and the dominance of the French language are in Corsica and Bretagne. Of the two, the Corsican independence movement is far more politically potent, having received one vote in five in the 1992 elections for seats on the *conseil régional*. Regional Bretonne parties, by comparison, captured about one vote in fifty (Libération, "Resultats," 24 mars 1992). The political organizations promoting greater regional autonomy are themselves somewhat splintered, but both movements use telematics in support of their efforts. The marginal nature of these movements

and their limited access to major media heighten the importance of their Minitel services, especially for their core nucleus of committed supporters.¹⁶

The first of what are now two competing Corsican services was begun in 1989 by the newspaper Ribombu (weekly circulation 5K), which is an official organ of *Concolta Nazionalista*, one of the Corsican nationalist movements. The telematic service was given the same name as the newspaper. Its goal was to provide more timely information than was possible in the weekly publication and to serve as a place in which the different issues of concern to the movement could be debated by members. In December 1990, however, a split in the movement over strategies led the creator of the telematic service (who was also editor of the newspaper) and others to leave and form a rival *Mouvement pour l'Autodetermination* (MPA). This split led to the temporary suspension of the telematic service Ribombu, which re-opened again in October 1991. However, it also led to the creation of a rival newspaper, Paese (also a weekly with a circulation of 5K) and a rival telematic service of the same name, which opened in April 1991.

Ribombu includes communiqués from *Corsica Nazione* (which is a coalition of different groups for electoral purposes but which does not include the MPA), news, classified ads, online conferencing, articles from the newspaper, and some information in Corsican. In early 1992 it was receiving approximately 4K calls/month for about 220 hours of consultation on 3615. Another approximately 280 calls for 35 hours of connect time were generated by an access code on 3614 reserved for *militants*.

Virtually all callers consult the conferencing subsystem, which receives about 30 new messages a day, of which ten are erased by the service's manager soon after

¹⁶ Although these organizations engage in electoral activities they are but one element in their strategies and goals. Since these include the promotion of regional languages and culture they are classified here as associations.

being posted because they are deemed to be defamatory. "Its easy to run a telematic service," says Charley Calesti, who is the sole person to work full time on Ribombu. "You just set it up and it runs" (personal interview, April 1992). Messages that are critical of the movement are permitted as long as they are not insulting, but there is little relationship between the online expressions of sentiment and the actions taken by the movement. "It is a place for debate, not for decision-making," says Dominique Rafani, of the company that manages the host computer for Ribombu (personal interview, April 1992). Other than announcements in the newspaper the service is not promoted. Calesti reports that the service generates sufficient revenues to pay for its costs.

Paese is also self-financing based on the 8 to 10 KF a month it receives in revenues generated from connect time on 3615. It spent 150 KF on the computer and software to get started, but has no service bureau with which it must share revenues from connect time. Its content includes editorials that have already appeared in the newspaper, communiqués from the *Front de Libération Nationale Corse* (FLNC, which is also split into two factions) and the MPA, games, and a forum. Yves Stella, editor of the newspaper and of the telematic service, reports that it gets between 80 and 100 calls a day with peaks of up to 400 calls/day. The forum gets between 15 and 20 new messages a day, of which about 5-10 are erased. The service is also an archive for some FLNC documents.

In terms of the linkage between the service and the political movement, online discussion "has an influence upon the movement of ideas, but not on decisions," says Stella, who spent eight months in jail for having given assistance to what was deemed a terrorist movement. During the service's first few months, Paese had a number of live online teleconferences (during which an individual answers questions posed in real time) that featured MPA representatives, "but that takes lots and lots of time." Some

percentage of its usage comes from Corsican's who are outside of Corse. "Even the police call to get FNLC communiqués," says Stella. "It is considered an official source...it is known and accepted."

The *Union Démocratique Bretonne* (UDB) was formed in 1964 to agitate within the party structure for greater regional autonomy. It has about 500 paid members, but 1K subscribers for its monthly magazine Le Peuple Breton, which has a total circulation of about 3K. The organization's annual budget (apart from the magazine) is 500 KF, which comes mostly from membership fees and the salaries of its 50 elected officials. Although it has no paid staff, its two members of the Nantes city council joined the Socialist majority in return for a secretary, who provides some clerical support for the UDB. It also has city council members in Lorient, Rennes, St. Malo and elsewhere and has elected mayors of two small communes.

Its telematic service UDB was begun in 1987 on 3614 at a start-up cost of about 10 KF. The goal was to diversify its means of communication and to reach a larger public. The service includes news, announcements, its political program, and screens in Bretonne as well as two subsystems for user input, a forum and a (one way) electronic mail system. Messages posted in the forum have an occasional relationship with UDB business but are more frequently on unrelated topics. So frequently have callers left messages urging users to connect to other Minitel services that the software has been written to automatically erase any line containing the words minitel or chez (the name of an electronic mail service popular with right-wing political groups, discussed below). About 5 new messages are posted daily. Fewer messages are sent to the service's electronic mailbox (between 10 and 20 a week). A very small number (1-2 a week) require a response, which is either made in a message that is open to all callers or, more rarely, by mail or telephone.

UDB gets between 1,500 and 1,700 calls per month, a level that has been stable for about two years. No statistics are kept on consultation of the service's various subject headings, and since it is on 3614 there are no revenues. Expenses, however, have now surpassed 20 KF annually since charges are based on the storage taken up on the host computer. Both the purchase of a host computer and moving the service to 3615 are under discussion. Four activists give the service collectively about 10 hours a week of their time. The code for the telematic service is found in its brochures, the magazine, posters, and an internal newsletter (circulation about 1K). About 2K stickers with the Minitel code were also mailed out to their members.

"We have no budget, no expenses, and no real knowledge of the public that we reach," says Michel François, a city councillor in Nantes who is responsible for the telematic service. He reports that they do get mail from people who found out about them from Minitel, where they are listed on the Minitel Guide to Services (MGS). While they have a telephone, their office is only open for two hours a week. Most of their new members, "at least 75%," come from the magazine, which is sold in a number of locations outside of Bretagne. "Minitel is useful to us because we don't have access to the major media. Our communication doesn't go toward the user. He or she has to find us."

In all of these cases the severe limits of these organizations makes their telematic services relatively more important in their communications activities than it would be if they were high profile, high budget operations. Both movements also count a number of partisans who live outside of their regions and hunger for news from home, but neither knows what part of their telematic usage comes from this source. They also benefit from an unknown number of supporters who are sufficiently motivated by the cause to call the service and express their partisanship. In this way the energy needed to keep the service lively comes from outside the

organization managing it, which as seen in the chapter on electoral services is not often the case for larger political organizations.

B. Unions

1. Faxed to Death: CFDT and CEDETEL

The CFDT (*Confédération Française des Travailleurs*) is the second largest union in France (539K members in 1991) and the labor organization most closely associated with the Socialist Party. It has a reputation as a far-sighted and well-managed organization, one that "has another vision of French society built on decentralized authority and direct participation" (Ashford (1982) p. 315).

It has two principal nationwide services. One is an electronic mail system for 300 union representatives that is accessible by 3614. It is "almost unused," according to Maryse Driencourt of the CFDT, generating 2-3 calls a day. "When there is something crucial," she says, "it is sent by fax" (personal interview, April 1992).

Since November 1987 the union has also had a service for the broader membership on 3615 called CFDT. It includes eight main sections: news and CFDT's commentary on the news of the day, a guide to the rights of workers, a section devoted to governmental employees, a list of publications which can be ordered online, "useful numbers" ie. the level of benefits available from various state welfare programs and other statistics so one can "teach, intervene, and write effectively," a list of addresses of CFDT locals throughout France, games, and electronic mailboxes. The most extensive section is a guide to the rights of workers, which has about 200 screen pages including information on layoffs and disciplinary actions (and how they can be contested), the role of industrial councils, and rules concerning days off and paid holidays.

The service also includes a program to figure out one's income tax levy that upon entry of one's annual income responds with the corresponding income tax

liability.¹⁷ An educational section allows union members to respond to a questionnaire. After, for example, a million questionnaires were distributed by mail members could were invited to respond either on paper or by Minitel. Instant results were available for those responding by Minitel.

Ten months after its creation, the service remained "unknown and under-utilized," according to Michel Crechette and Jean-Marie Charpontier of the unions office of computer operations (personal interview, September 1988). It has required substantially more staff time than was imagined at the start. As Driencourt says, "we thought it would run itself." It received about 100-150 calls each day in 1988 for about 10 hours of consultation. When used to distribute the results of internal elections it was been saturated with more than 10,000 calls. This has been uncommon, however.

The service received 73,865 calls in 1991 (up from 51,619 in 1990) for 3,697 hours of connect time (compared with 2,256 in 1990). The tax calculation program is by far the most popular. The three month period before taxes are due (January to March) accounted for more than half of the service's annual calls in both 1990 and 1991 and two-thirds of its annual connect hours. A third of all callers in 1991 consulted the tax section (up from a quarter in 1990), and the time they spent there was 55% of annual connect time in 1991 (46% in 1990). Two weeks of advertising was purchased to promote the tax program in 1991, which doubled the number of calls the service generated in the month of February compared with 1990. However, it cost 65 KF and was therefore not profitable, although it did make the service better known. The service has no annual budget, but shares the revenues from its connect

¹⁷ In France one receives a tax bill based on reported income. The calculation program, therefor, is an unofficial estimate of the tax bill to be expected.

time with its service bureau in months in which it gets more than 500 hours, which happened twice in both 1990 and 1991.

Other ways of promoting the service have been occasional announcements in Syndicalisme Hebdo CFDT (a weekly magazine with 34K subscribers), a reference to the service in the guide that each CFDT member receives annually, and periodic mentions in the publication CFDT Magazine, which has a circulation of 300K.

In terms of the exchange of textual messages, Driencourt says, "that isn't what people are looking for. Our *militants* are 40 years old on average and they aren't used to this medium." A request for responses to an article in Syndicalism Hebdo CFDT generates about ten responses, "so that doesn't work at all. People just aren't interested in it." The same is true of private electronic mailboxes, which are seldom used. One can join the CFDT online, but usage of this part of the service "is almost unknown."

The system has not been used in decision-making, except to report the results of an election. "There are certain ways to make decisions in the union," says Crechette,

certain stages that must be followed. This organization has been run according to these rules for a long time. Utilizing Minitel as a way to communicate outside of that framework would break down these levels of consideration and action. There would be a great deal of resistance to that.

"Interactivity?" adds Driencourt, "no, I don't believe in it as far as expression is concerned."

In addition to these services, the branches of the CFDT for workers in health professions and in education have telematic services at their disposal, both of which may be reached from the main CFDT service.¹⁸ A CFDT-related association also

¹⁸ codes CFDTsante and SGEN, for *Syndicat Générale de l'Education Nationale*.

runs a service for vacation planning¹⁹ but it is not accessible from the principal CFDT service, nor is the service for CFDT workers in the Finance and Economic Affairs ministry.²⁰ None of these services generate as many calls or as much connect time as the main service.

Prior to the creation of the national CFDT service, however, the regional CFDT in Aquitaine began its own service called Cedetel. Its goals were to provide electronic mail for members of the *comités d'entreprise* (union-run committees in businesses of more than 50 employees), to deliver information to salaried employees both inside and outside of the union, and to permit union officials to exchange electronic mail among themselves. A database on work laws to give legal and social information to all salaried employees took a lot of work to keep up-to-date, and generated only modest usage. A listing of services the CFDT could provide the *comités d'entreprise* and electronic mail generated most of the connect time. Messaging "worked in pre-established relationships, and especially messages sent to an entire group," according to the service's creator, Daniel Andraud (personal interview, March 1992)

During its best period (1987 and the first half of 1988) the service generated about 6K calls/month for 90 connect hours. It was created by a telematic service bureau, which kept all income from connect time. The creation of content for the service cost 35 KF for 1987 and 1988. At that time, says Andraud, the service

became rather important internally for electronic mail and for news updates. Still, it remained a *technique* that the *responsables* had difficulty adjusting to. It didn't become part of their regular habits...It is used less and less and today we have fallen to a very low usage, a few hours a month. Fax is used more and more...[there is a] direct

¹⁹ Invac, for *invitation vacances*.

²⁰ code Financfdt.

relationship between these two things as it concerns messaging between the *responsables* of the CFDT.

Notice was given in March 1992 that the service would be closed in July, even though it cost the regional CFDT nothing to maintain.

In conclusion, the CFDT has the financial resources, internal communications apparatus, and ideological commitment to participation and decentralization necessary to forge a relationship between telematics and the union's activities, if there is one. With the wave of enthusiasm for telematics now passed, however, one finds even the marginal messaging applications that telematics was able to take away from traditional media now captured by fax. The major part of usage of CFDT is for tax calculation, which is not unique to CFDT and may be found on a number of other telematic services. While some information on CFDT is timely and difficult to find elsewhere (such as updates on negotiations in progress), the service is very marginal and without impact upon the organization's internal decision-making.

2. Thinking Small but Breaking Even: Actionsp

The *Confédération Générale du Travail* (CGT) is France's largest union, with about 850K members. Among its strengths are a solid foundation among government employees, with 55K members who work in *les services publiques*. This division also has a telematic service called Actionsp that has been a modest success.²¹ In 1990 it attained a balance between its expenses and its revenues, an equilibrium that has been maintained since. Because the CGT is the union most closely linked to the PCF,

²¹ MGS lists eleven other services for other professional and regional subdivisions of the CGT.

ads for the service in one of the division's weekly newsletters call Actionsp the "*Minitel rouge*."²²

Experimentation was begun in 1987 following computerization of the production of the public services division's internal publications. Launched in March 1988, it is hosted by Telise (a telematic service bureau discussed in the chapter on governmental applications). "We are always chasing after faster means of distributing information," says Christian Bertrand, the service's *responsable* (personal interview, April 1992). The division has two newsletters: Le Guide, which reaches 3,800 active members, and Information-Action-Sector which exists in different versions for different professions (ie. firefighters) with circulation ranging from 3K to 500K. In addition, the division has a bi-monthly magazine entitled Le Service Publique that is sent to all members.

"The point wasn't to replace the publications," says Bertrand. "Minitel is for short pieces of information [that can be] sent very quickly, and for databases...For long articles the magazines are better. They are complimentary."

One of the leading elements of the telematic service is news headlines. They are updated several times a week, and include specific news for certain employment categories. Some news items are available only on Minitel since they are no longer news when the weekly newsletter is printed. News features include, for example, how to participate in elections to workplace advisory committees. A classified advertising subsection "doesn't work very well," and a database for the career paths and training opportunities for public employees is under development.

An electronic mail system for about 70 union *responsables* "works OK for half of them while the other half doesn't use it at all." Bertrand estimates that only a

²² This contrasts red as a reference to communism with *Minitel rose*, or pink messaging services, indicating sexual content.

quarter of them use it frequently to communicate either to the Paris office or to one another, with non-Parisians using it more frequently than people living and working in the Paris region. An electronic mail system for the union representative in each *département* and overseas territories (about 100) generates similar usage patterns:

We don't send them anything that they wouldn't get otherwise by mail. First we put it on Minitel and then we send it to them by letter. We tried to put special information only on Minitel and they weren't happy at all. Many complained that they didn't get it because they didn't have a Minitel or didn't want to use it, so now we do both. Those who consult Minitel have information a bit ahead of the others.

The service also includes a question and response system for which a questioner is issued a private password with which he or she can recover his or her response. It averages about 10-15 questions a week, which proved to be too many to be able to answer by letter, as was attempted originally. A forum for free expression (which all callers may read) gets about 2 new messages a day in a normal period, but as many as 5-10 a day before a congress and up to 30 a day when a strike or job action is underway. A feature in one of the newsletters takes comments posted on the telematic service and publishes them (without the author's name). It occasionally solicits readers to leave their own comments via Minitel as well.

In 1991 the service generated an average of 2,000 monthly calls for 150 connect hours. These results are only slightly different than the 1989 statistics (about 1,900 calls/month for 163 connect hours on average). While the year-to-year results are quite stable, individual months, however, are highly variable. For example, 913 connect hours were registered in October 1988 (3,805 calls) and 384 hours in October 1989 (number of calls not available) with the mobilization, respectively, of nurses and social workers. The summer months, as with all telematic services, generate usage well below the monthly average on the year. The division receives 15 F/hour from the service bureau hosting it (generated by usage revenues) which pay for its costs.

One job category (the firefighters) has taken responsibility for updating its part of the system, while Bertrand continues to handle the rest of the service himself, although he reports that people now send him news items without being solicited. Yet, "there is no real relationship between the service and the life of the union. Minitel doesn't involve enough people." Still, "it is now our only means of communicating that costs us nothing. The newsletters cost money and our answering machine...can only handle a very small message. Minitel pays for itself."

Actionsp is among the best examples of a telematic service for a union because it is well-integrated into the organization's other communications activities. If it is a break-even operation it is due in part to its focus upon a narrow audience, with news that is difficult to find elsewhere, and intelligent exploitation of the medium's interactive capabilities. Yet, it is also crucial to note that its revenues and expenses balance one another because it has a favorable agreement with its service bureau and because none of the salaries of those involved with the service are included as expenses. Still, it represents probably the limit of Minitel's organizational impact given the device's less-than-universal distribution.

3. Unions on Strike: Coorditel and CONCASS/CASIF on Chez

If job actions conducted by the major labor groupings in France are increasingly infrequent, smaller unions continue to resort to them to gain leverage and win concessions. They are often, however, new labor organizations or splinter movements that lack the organizational capacities of the larger unions. Some of these have turned to telematics as a means of announcing their future activities and receiving messages of encouragement and support. Two recent cases involve nurses and social workers.

As discussed above, Alternatik sought to provide support for striking workers and was successful at attracting usage from striking nurses. In a more passive way,

the Minitel system's largest electronic mail service has also become a host for organizations wishing to establish a telematic answering machine at very little cost. The service, 3614 Chez, is huge, with more than a million calls a month (more than 50K hours of connect time in March 1992) and 45K electronic mailboxes. One may view messages at very low cost (there is a means by which users may check their electronic mailbox at no cost), but creating an electronic answering machine or re-reading messages requires a connection on 3615, where the service is called Che. The creators of Chez have taken advantage of the technical capability to connect instantly to a particular interior element of a telematic service by means of the Minitel code followed by a star and the name of the desired subsystem. Thus, the organizers of the nurse's job action (*Coordination Nationale Infirmière* or CNI) could create the codes Chez*CNI and Chez*CIMP (*Coordination Infirmière Midi-Pyrénées*) in 1989 without either the knowledge or cooperation of the operators of Chez.²³

In November 1991, due in part to the limit of seven screen pages for a message on Chez, one of the movement's activists in Toulouse created a service called Coorditel 31. It was available via a direct dial telephone number, but served primarily that region. It included a section on the latest news and a means of asking a question and receiving a response. But a good deal of the service was very long texts of from 26 to 40 screen pages having to do with the history of the conflict and its goals, with specialized information on particular employment categories. Although its first goal was to serve as a place outsiders could contact them, "those inside the movement used it most. About 95% of the calls were from nurses who call from where they work," according to François Caroff, who was responsible for beginning

²³ This has made Chez an especially congenial environment for groups on the right wishing to exploit the telematic medium's anonymity and disjunction from physical location, as discussed below.

the service "because I said I had the hardware that we needed" (personal interview, March 1992). "Since not everyone can come to every demonstration and not everyone has the latest handouts...[everything] is there on the service, including the letters we send to administrators."

From December to March it generated about 10 calls a day for 35 minutes of connect time, but when Caroff asked CIMP to purchase the computer from him the service was suspended.

The *Collectif des Assistantes Sociales D'Ile-de-France* (CASIF) and the *Coordination Nationale des Collectifs d'Assistants de Service Social* (CONCASS) were similarly engaged in communication by Minitel. Their strike began in September 1991 in the Paris region and gradually spread. Among their actions were a long 24 hour sit-in near the prime minister's residence. The Minitel codes 3614 Chez*Concass and 3615 Che*Concass are at the bottom of the movement's handouts, along with its address and telephone number. From the creation of this electronic mailbox in May of 1991 to March 1992 it received 527 messages and sent out 102. In the month of March 1992 the online answering machine was consulted 489 times. Another electronic mailbox with the name CASIF received 161 messages from October 1991 to March 1992, and sent out 21 messages. In March 1992 the online answering machine received 254 calls. The record-keeping of Chez does not make it possible to know how many consultations the answering machine received during the period of the group's greatest notoriety, which was the Fall of 1991.

Pierre-François Garimaldi, President of Téléstore, the company that runs Chez, estimates that the notice at the bottom of the group's handouts is likely to generate 2-3 Minitel calls for each 1000 leaflets distributed. Others who have used Chez include a group of physically disabled individuals and the CFDT members in the Finance

Ministry, who were organizing to support their request for a salary increase. The later group, Garimaldi reports, generated 150 calls/day for a period of two months.

What both the nurses and the social workers attempted to do are part of the standard process by which many French activist groups go into business: getting an address, a telephone, and setting up a Minitel code. The number of calls the telematic service receives are quite small. The number of individuals concerned and the amount of time during which the conflict is active are also quite limited, however. But while it is virtually impossible to judge the impact of these telematic activities upon organizing rallies and events, they would appear to also be quite minor.

4. Challenging the Official Channels: SNES and USTEL

SNES (*Syndicat National des Enseignements de Second Degré*) is a union representing a quarter of a million French secondary school teachers, meaning it wins about 65% of the vote in workplace elections. It has about 75K to 80K dues-paying members and an annual budget of 50 MF (for the 1990-91 school year). More than 90% of its revenues come from membership fees, but its second largest source of revenue is the income generated by its telematic activities, a large operation with a budget of 1 MF a year.

In 1984 it launched a service called SNES (on 3614) for its representatives at each *lycée*, *école*, and *academie* (of which there are about 6,000). It was designed to serve primarily as a way to get instantaneous information to union locals about demonstrations or job actions in other parts of France. It also contains an electronic mail system so that these officials can send questions to union representatives in Paris. It has been used, for example, to disseminate the union's official response to a ministerial announcement to all local representatives. There are about 1000 working electronic mailboxes, but responses to questions sent electronically are generally given by mail or telephone.

In April 1986 SNES launched a service on 3615 for the teaching profession called USTEL (*Université Syndicaliste Télématique*). Its principle function is to support the union's role in the annual *mutation*, or job exchange. About 50,000 teachers seek a different teaching position each year. Each teacher's qualifications are calculated by a point system to determine their eligibility for a new position. The union offers advice on how to fill out this *Dossier de Mutation* to maximize the number of points each teacher can claim.

Teachers can verify their place on the list of people requesting a new position, determine their point score, question their union representatives, and follow the day-to-day news of the *mutation*. After the list is submitted to the Ministry the teachers receive offers of new positions. About 30,000 of them accept their new assignments or ask for changes. After negotiations between union representatives and the Ministry the results become official. In 1986 and 1987 about 5,000 messages were sent to the Paris office via USTEL concerning the mutation between May and August. SNES reports that the average call is three minutes long.

Table 18

USTEL Peak Usage Statistics 1986 and 1987
(hours of connection)

	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>
1986	637	2,338	2,537	927	1,059	274	156
1987	797	4,098	3,167	1,362	930	365	256

Source: SNES

When individual results of the *mutation* were first made available on USTEL in 1986 it marked an important departure from the traditional process. Formerly the Ministry's decisions went to each school first and then to the teachers--not to the union at all. The union has thus found its power and position substantially enhanced

by this new service. This was recognized by the Education Ministry, which, when controlled by the right in 1987, "engaged in open warfare" over the control of this information. The results of some disciplines were withheld. However, in 1988 the Ministry was again under Socialist control and once again cooperated with the union (personal interview with Michel Robert of SNES, September 1988).

Usage of the service continues to follow the same annual curve with its peak during the middle of the year when the *mutation* is underway. Its 1991 statistics, however, show that the service has become one of the profession's institutions, despite the attempt by the Education Ministry to coopt this application and its audience.

Table 19

USTEL Usage Statistics 1991
(hours of connection)

<u>January- February</u>	<u>March- April</u>	<u>May- June</u>	<u>July- August</u>	<u>September- October</u>	<u>November- December</u>
600	2,300	12,000	6,000	1,600	2,100

Source: SNES

As a result of its competition with the Education Ministry²⁴ the SNES service gives additional information such as details on an individual's point score, the point score necessary to have been successful (which varies by discipline and *département*, and global statistics on the discipline.

USTEL also offers documentation on rights, administrative information, general union news, an official calendar, and a review of press references to the union. During a strike from December 1986 to January 1987 and a series of job actions from January to March 1990 the service was heavily consulted. Union negotiators would telephone in updates that were immediately posted on the service.

²⁴ EDUTELPLUS, see the chapter on governmental applications.

The existence of the service is made known to union members by advertisements and articles in L'US²⁵ and to the broader teaching profession mostly by word of mouth. Each union member now receives a mailbox and a confidential password for USTEL on their union card. Non-members must get an identification number from SNES to have access to their *mutation* results. The income the service generates has paid for the purchases of the hardware and software necessary for SNES to be able to host the service internally, without relying upon a service bureau. Managing the service requires the time of 1.5 staff members, whose salaries are not covered by the telematic income.

There is no way for union members to communicate with one another on USTEL. During the *mutation*, USTEL receives about 100 messages a day from teachers who are participating in it. The messages are printed out and distributed to people in a region or discipline who respond by letter or telephone.

As with other media for interpersonal communication, conflict and controversy provoke usage. For USTEL this is not only true in the case of job actions, but internal union conflict as well. In the Spring of 1992 SNES was in the midst of a bitter conflict with FEN, the peak association of all education-related unions and both were reconsidering their relationship. USTEL had about 50 screen pages on the conflict, which were updated 2-3 times a week and received 200-300 calls the weekend before the leadership of each organization met to make a decision.

But the primary effect of SNES's telematic activity has been to provide a service to members and non-members that vastly improved the previous means by which this information was delivered. Official channels moved so slowly before

²⁵ See Jean-Jacques Mornettas, "*Le SNES S'Informatise*," L'US No. 170 (24 Septembre 1987), pp. 32-3, and advertisements in L'US for USTEL 3 Mars 1988 (p. 13) and 21 Avril 1988 (p. 17).

SNES built this application (provoking the Education Ministry to build a competitor) that it was not unknown for *mutation* results to be finalized only a short time before the start of the school year. By the number of individuals involved, their geographic dispersion, the unique character of the information each person is seeking, and the numeric character of the key information, the *mutation* application exploits many of the advantages offered by the telematic medium.

5. Information for Members, Communication for Professionals: FEN and FO

Like the CFDT, the *Fédération de l'Education Nationale* (FEN) and *Force Ouvrière* (FO) each have a number of different services created by different parts of their organizations. The Minitel Guide to Services lists eight services related in some way to the FEN and seven in the case of FO.²⁶ Also like the CFDT, there are two services created by the national office in Paris: one that is internally-oriented and another that is for members and the broader public. However, in both of these cases the internal services function better than does the CFDT's, with FO's internal service, for example, being far more important than its rather minor service for its members and the general public.

FEN is the peak association of all 48 unions (of 338K total members) in education and research. Created in 1947, some of its member unions are closer to the PC and others (a majority) are more closely tied to the PS. Hall (1990, p. 89) calls FEN "a virtual empire, linked to 53 service agencies, including savings banks, insurance companies, publishing firms, tourist agencies and old-age homes, worth at least 10 BF." In 1985, FEN and one of its member unions (the *Syndicat National d'Instituteurs et Professeurs d'Enseignement Générale de Collège* or SNI-PEGC) created a service accessible on 3614 (code SNIPEGC). It is a means by which the

²⁶ In the case of FEN most are services geared for a particular region while for FO they are services created for a particular profession.

Paris office can distribute internal memoranda to the union *responsables* in each *département*, to each of the member unions of FEN, and to members of the *Conseil Fédéral Nationale*, which is the union's deliberative body between congresses. Daniel Malgras, who is responsible for computing and telematics for FEN, reports that it gets about 200 calls/day and that at least one message of one to four telematic screen pages is sent each day. Messaging works in both directions, and someone at the FEN's Paris office is responsible for taking messages, printing them out, and distributing them to their recipient. Yet, as Malgras says, "fax has been replacing this."

FEN's other service (3615 FEN) was created at the end of 1987 to serve members and "to make us better known" to non-members. It presents all of FEN's press releases, lists the unions purposes, its member unions, and training programs available to members, and presents sections on sports and trips done by a youth section, on an affiliated association for consumers, on cultural activities. Malgras reports that the service is hosted on a computer that was already owned by FEN and that he wrote the software, so that there were no hardware, software, or consulting fees necessary to get it started.

In 1989 the service averaged 2,895 calls/month, which grew slightly in 1990 to 3,099 monthly calls on average. Peak times reach between 7K and 9K calls and generally come from the posting of results of elections at the national congresses or the *Conseil Fédérale Nationale*, which is the most popular part of the service. All promotion is internal and without cost. It takes the form of an occasional small display ad in the bi-weekly FEN Actualités and the weekly FEN Hebdo, although there is no linkage made between the content of articles and the telematic service.

It does not permit messages to be left for FEN's Paris office, nor is there any interaction permitted between callers. "It works well," says Malgras, "it saves us a lot of time relative to publishing something." In March 1992, with a crisis between

FEN and its member union SNES reaching a very high pitch, usage of the service was up--very briefly--to 200 calls in a single morning.

The services of FO are even more professional and more highly targeted than those of FEN. The service for members (and non-members) is called 3615 FO and is exclusively a means by which readers of the annual FO Spécial Hebdo on taxes may get additional information.²⁷ Begun in 1987, the service runs essentially from January to March and gives callers the ability to anticipate their tax bill (which is figured by the tax authorities based on the data in the tax return, who then send citizens a tax bill). It generates about 15K calls monthly during tax season and the approximately 16 KF in income it generates annually pay off the fees associated with updating and maintaining it (it is hosted externally). No messaging of any kind is available nor texts on any other subjects. The Paris office of FO has no other services for either union members or the public at large.

However, FO's internal service, called FOTEL, is an internal communications device that carries Minitel to its technical limits. Begun in 1989, it is a means by which memoranda may be sent out virtually simultaneously to FO's 33 *fédérations* (unions organized by profession), its 100 *départemental* offices (that unify all elements of the union in a particular locality), and its affiliated national unions. In all there are about 200 memo recipients on this network, each of whom is equipped with a Minitel, a printer, and a device that automates the Minitel's functions. Each is programmed to log on to the service (which is on 3614) three times daily, download the messages found there, log off, and print them out. The Mac II that serves as a host at the union's Paris office is equipped to handle 64 simultaneous calls, so in the space of

²⁷ Normally, this weekly publication is geared to *responsables*, of which there are about 60K. However, for the special issue on taxes 1.2M copies are sent out to all members and sold on newsstands. About half that number are distributed of an additional four special issues annually.

about a half an hour all union affiliates have the same text on the news of the day from Paris. Although these automated Minitels are being slowly replaced by PCs (which permit archiving and do not require a specialized printer, as the Minitels do) they still account for 75% of the network's nodes.

Usage is highly variable, but on average ten messages are sent weekly. They are limited to 20 screen pages and the service does not support messages sent in the other direction. "It is for rapid information, succinct, in real time. It is not for writing a novel," says André Roulet, the FO's treasurer and second ranking union officer. All messages sent out on FOTEL are also sent out on paper, the Minitel service essentially allowing the acceleration of internal communication.

It was used, for example, to distribute nationally the results of a meeting FO officials had with the new Prime Minister on 23 April 1992. "An hour and a half after leaving his office all of our offices had our statement." Its primary applications in the past have included asking local offices to send telegrams of support to striking workers at Peugeot and helping local representatives get the union's perspectives on national events into regional newspapers. Its period of greatest usage was in 1989 when a job action at the Ministry of Finance began in April and continued until the end of October.

This service replaced a telex system, which, working serially, required several hours to send out the same text to each node. It cost 1 MF to establish this system of parallel message processing, an expense that Roulet finds justified:

The principle this system supports is equality. You can't imagine how badly they'd all react if one got a piece of information before another. We have to keep a level playing field ("*surface plat*") that gives no advantage to anyone.

Although he calls the introduction of fax to the organization "an invasion," it is used as a replacement for regular mail. "It has nothing to do with this system."

In both these cases, the services for the union's membership and the general public are strictly unidirectional, with the FO's providing a service that is also almost purely numeric. Even the FEN's allows no bi-directional communications. Minitel is used, however, for communications in both cases for an internal audience, although in this case as well the essential application is to send memos from the central office to its satellites. Return messages may be sent on FEN's service, however the Paris office has no way of knowing what percent of its communications network has called and taken the daily message off the system and distributed it locally. The FO service, on the other hand, still handles 600 automated incoming calls a day even if there is not a single message to be sent (in which case each Minitel prints a message indicating that there was no message). FOTEL thus solves one of Minitel's drawbacks by removing human volition from the communications process, which runs without any human intervention. It is a one-way automated information highway however, that does not carry any information from the provinces to Paris.

C. Social Services and Community Organizing: CSX and Abita

Telematics offers little to groups whose members are in close physical proximity to one another. But the dispersed nature of neighborhood associations and of local organizers of social activities suggests the possibility that telematics could be used to build a network by which organizers and participants could communicate with one another. Two attempts to do so are the *Fédération des Centres Sociaux et Socio-Culturels de France* (FCSF) and the *Confédération Syndicat de Cadre de Vie* (CSCV), whose Minitel services are called, respectively, CSX and Abita.

1. CSX: "We can't let what we've invested just disappear"

FCSF is a federation of 900 local neighborhood activity centers, funded by municipalities and an organ of the national government but which have boards composed of local citizens. The national office has a staff of fifteen. After a study

done with an external consultant on its internal communications practices in 1986 it began a Minitel service on 3614. The expense involved led the service to move to 3615 the following year, although FCSF does not receive revenues from the service, which remain with the company that runs the computer that hosts it.

"When we began," says Brigitte Morin, who is responsible for the service, "we thought we'd end the [monthly] newsletter. It didn't work quite that way." A newsletter, La Lettre Fédérale, begun after the telematic service and sent out 3-4 times a year "more and more resembles [the newsletter the predated telematics] since people don't consult Minitel often enough" (personal interview, March 1992).

The service cost 120 KF to begin and has operating expenses of 20 KF. It takes up something less than half of the time of one staff member, whose salary is not included in this operational expense. At its peak in 1987 the service generated 200-220 connect hours monthly. Usage declined thereafter, and a change of software in 1991 led to a very rapid drop. In February 1992 the service got only 46 hours, which Morin says "I've never seen so low."

The service's most important function is for electronic mail. About five messages are sent each week to all centers at once in addition to messages to individual centers or groups of them. Not all centers have Minitels. Morin estimates that a majority do. Messaging is also limited "because not everyone looks at their mailboxes." There are also electronic mailboxes for individuals. At its peak there were 100 of them, which since the change of software has diminished to 20.

Before the software change, the FCSF national office in Paris received about a total of two messages a day from the local centers, asking, for example, for a national representative to be present at a particular event, or that the documentation necessary to apply to a program offering financial support be sent. Now there are far fewer. However, in March 1992 in a period before a national congress the Paris

office received about ten faxes a day. Messages sent out by the president of the FCSF designed to inspire employees of the local centers are done by mail. "This requires long sentences and can't be done by Minitel," says Morin, "which is for short sentences and ideas."

In addition to messaging the service offers online all the articles that are in La Lettre Fédérale so that the local centers do not have to save them. It also has an extensive database on youth, elderly, conscientious objectors (who staff a number of centers), economy, finance, Europe, etc. It is drawn from ministerial documents, magazines, and other sources and provides information on available subsidies and government programs. But this database generates less than an hour's worth of monthly consultation. Messaging is consistently the leading application.

We'd hoped that it would work better and are disappointed," says Morin, but we at the same time we can't let what we've invested just disappear...We tried to do too many things. It is too hard to keep up-to-date and too difficult to use. Lots of centers are afraid of Minitel not because of our service but because having one means people will use it for other things...[and] lots of people have trouble with keyboards.

Morin reports that they have only had fax for a year.

No one is afraid of that. It works very well, but it is not at all the same thing. It can't take the place of the Minitel. It can't replace the database part of the telematic service...We still think that in the future it will take on a more important role, but it hasn't happened as we had hoped.

2. Abita: The High Cost of Telematics

The CSCV is a federation of 400 consumer groups, neighborhood associations, and tenant's associations that was begun in 1952. Approximately 20K individuals are members. Memberships are a third of its income, somewhat more than a third comes from the national government, and the rest is generated by fundraising. The Paris office has ten person staff and there are 50 salaried staff members in the field.

Their telematic service was begun by a local group in Grenoble and then in 1986 taken over by the national association. It cost from 100 to 130 KF to launch and now costs 40 KF annually. It is hosted by a service bureau and takes up a third of one staff member's time.

The purpose of the service was "to develop our contacts with the population," according to Laurent Grisel, Secrétaire Générale Adjoint for communication. Questions received from individual citizens and consumers makes it possible to "know better what they are concerned with."

The service gets about 2K calls a month, of an average duration of 4 mn. The most popular part is the question and response section, which gets about 5-10 daily questions. Responses are given by Minitel. In second position is a credit calculation program that allows borrowers to evaluate the total cost of a loan being offered by a bank. Each Friday a five page magazine is placed on the service that has from 30 to 50 readers, principally staff members in the field. "The primary benefit to us," says Grisel, "is being able to move their search for information from the telephone to the screen." An electronic mail system was tried but discontinued. The service is promoted in CSCV's monthly and trimestrial publications.

The only controversy associated with the service, says Grisel, is the amount of money it costs to run, which is about 15-20% of the organization's budget. Since the service is not self-financing the organization's decision-makers are in the process of evaluating whether or not the expense is worthwhile.

Despite their investment in time and energy taken to launch them, it is difficult to evaluate their contribution to the organization's goals in a positive manner. For annual costs of 20 KF (even if the development costs and staff time are assumed to be without value) CSX gets 50 monthly hours of consultation, which represents at most 1000 calls (at 3 mn each). Thus each call cost the organization about 1.6 F in

addition to the 3.75 F spent by the local center to place the call on 3615. Abita costs CSCV 40 KF annually, for about 24K calls or the same 1.6 F for each one. While other media cannot replace the database available on FCSF's Minitel service, that database generates only an hour of monthly usage. These two services are examples of how expensive it is for an association of nationwide reach to mount a telematic service with the pricing structure of a commercial service bureau. If the organization does not have enough usage to generate a substantial number of connect hours, it can become a drain on the organization's limited resources.

D. Religious Identity: Gabriel and Renouveau

Although lacking its previous political potency, religious identity continues to be an important source of social activity in France. Even if the church has become just another institution rather than one that poses a challenge to the state, it is an associational grouping with enormous presence and, relative to other voluntary groupings, massive membership and tremendous resources. Two Minitel services geared to religious identity--although at vastly different scale and purpose--are Gabriel, from the *Centre d'Information et Documentation Religieuse* (CIDR) and Renouveau, a service run by confederation of Christian associations.

1. Gabriel: A Minitel Violet

Gabriel was created in 1986 in preparation for the Pope's visit to Lyon. CIDR, which is a service of the diocese of Paris, served as the press agency for the visit. The technical side was handled by a since-deceased organization called *Chrétiens-Médias* (CM), which installed 50 Minitels in the press office to make the Pope's speeches available. Afterwards, CM brought individual diocese onto the service, then extended it to the Protestant and Greek and Russian Orthodox churches.

It was begun, according to Father Jacques Fournier, who oversees the service, because Minitel was

a modern instrument, *à la mode*, and *Chrétiens-Médias* thought they could exploit it like the other media. We really got into it without major reflection on what to do with it. Instead, we took our place (personal interview, March 1992).

The diocese pay to be part of the service, which lead to "much internal conflict," since "many diocese didn't want to cooperate." The Protestant and Orthodox churches also contribute to the service's costs, but all updating is done centrally. In 1990, the service ran a deficit of 400 KF.

The service features detail on the masses available at individual diocese, a vacation-planning guide that provides the hours and locations of masses that travellers may attend along a particular route, a test of religious knowledge, prayers and sacraments, retreats and pilgrimages, a feature on the saint of the day, and an electronic mail service. Users may leave messages for the Bishops' spokesperson, or CIDR, or the individual diocese. Fournier doesn't know how many the others receive ("very few, "), but reports CIDR gets 10-15 a day, "mostly from very far away," from people who have few other alternatives. Responses are generally given by Minitel (people leaving a question are issued a private code with which they may retrieve their response). Students on retreat have sent faxes to their diocese on their daily activities which are then made available to their families via Gabriel.

Usage of the service has been at its peak when there has been a computer conference (asynchronous teleconference) with a Bishop as the guest. For example, the Bishop of Luçon, the diocese of Vendée, responded to questions left for him from mid-January to mid-February 1992, a period in which the service generated 1,200 consultations. About ten other Bishops have also done so, although when the Bishop of Evreux, who is "something of a religious maverick" asked to be able to use an electronic mailbox to receive questions from his parishioners the other Bishops asked

he not be given access to the system. There is no forum in which people may leave public messages, nor electronic mailboxes for individual users.

Fornier estimates 1991 usage at between 1,500 and 2,500 calls/month for 5K to 6K hours, which is "very little." It has become "a very heavy system with tiny detail on masses in tiny villages with 300 inhabitants that no is interested in," detail on the individual diocese running to 22K screen pages. Consultations of the hours of mass in Paris is most likely the greatest generator of traffic, with the hotels calling on behalf of their guests probably the most important source of connect hours. In February 1992 Gabriel generated 6,900 connections for 417 hours.

With the end of CM in February 1992, CIDR took over responsibility for the system's content as well as the computer that hosts it. The service is in the process of being rebuilt, since there were "only two diocese--Paris and Lyon--that were truly functioning. The others continued to pay their part but didn't really get any activity...We must rationalize a system that has grown without pattern." The service has never been promoted outside of newsletters of individual diocese and Christian weekly newspapers.

Fornier has made occasionally profound interventions in the lives of callers who have not had priests near to them or have not wished to visit one. Yet, there are important institutional obstacles to increasing person-to-person interaction:

Our superiors have said no to more utilization of the service for direct responses since priests would prefer to have specific responses to specific situations. Most religious leaders are not warm toward Minitel because of the public image that it has carried.²⁸

If "religious Minitel has not yet found its niche," says Fornier, it is because

²⁸ In contrast to the "*Minitel rose*," or pink Minitel services (indicating sexual content), Gabriel has been called a "*Minitel violet*," in reference to the purple robes worn by priests.

the age of the Christian community is relatively older. We want to continue because the system, which has evolved, will correspond better in 4-5 years to those who go to church... We have accepted that we will remain in deficit for at least another 3 years.

Since the service was breaking even in 1986 to 1988 Fornier believes it can do so again. It is "the updating of small diocese that is expensive and time consuming and generates few calls." CM had three people working on Gabriel full time, two of whom were doing data entry. The new service will require one person working full time and another working part time. In addition, Fornier says, the new version of the system will have no more than 50 screens to update, with the diocese responsible for updating their own screens. "We are, after all, a business," says Fornier.

2. Renouveau: Saying things you can't say in print

By contrast, a tiny group of Christian associations that uses Minitel have built a service whose heart is messaging. While it remains practically unknown, its is "virtually self-financing," in part due to the online time generated by people leaving hostile messages.

The *Confédération du Renouveau Français* created the Minitel service Renouveau in May 1990 at a cost of 6 to 7 KF. Eleven associations share place on the service's main menu, which announces the goals of the federation, common events, and news. The service has a forum in which people may post public messages, individual electronic mailboxes, and a mailbox in which users may leave a message for Renouveau. The member associations are, for example, concerned with immorality or opposed to abortion. "We are mostly royalists, not republicans. We are anti-democratic," says Christian Ricard, who created the service.²⁹

Ricard says the service gets between 600 and 1000 calls/month. The service receives "no more than 20" messages a month. The forum is the most frequently used

²⁹ Another royalist telematic service is 3615 Bourbon.

part of the service, although Ricard says it is as likely to generate hostile comments as friendly ones. The healthy number of calls from people opposed to the movement's goals, however, generate the connect time that pays for the service.

The service's value, according to Ricard, is that "we are very limited by the law and can't say everything even in our own publications. But we can say them in electronic mail. There are some things that we can't say about foreigners, for example, that limit our liberty of expression." The *messengeries roses*, however, "are shameful and shouldn't be legal."

III. Summary

The promise of the online medium in associational communication is that it can provide a framework for organizational communication that goes beyond established boundaries. The hope is that participation in associational activities may be improved by means of asynchronous interaction and the ability to meet in the virtual space created by telematics. The associations having a successful engagement of the telematic medium are rare, and while there are some similarities among the successful applications of telematics it is difficult indeed to find an important, stable, and durable way that this new medium plays a role in the politics of what has been called post-industrial society.

First of all, the impact of telematics in the associational context must be measured against the general powerlessness of French associations and the unsophistication typically found in their communications practices. It is not by chance that some of the shrewdest associations, such as *SOS Racisme*, have ended their telematic activities. Most got involved with little reflection. As the *responsable* of Gabriel said, their telematic operation started "to take our place" in a society-wide development effort that communications professionals could not and did not wish to ignore.

The curl of the wave that washed over French society in 1987 and 1988 broke, however, over shoals that proved to be formidable obstacles. Not only are the associations marginal in terms of their political power and organizational resources but telematics turned out to be something that for most of them was expensive and difficult to do. As in the two previous chapters, there are considerable organizational barriers to using interactivity. This may be seen in the CFDT example, in which telematics would never be allowed to challenge the established lines of communications and decision-making, or Gabriel, in which the church hierarchy intervened to keep one of their more outspoken members from using the telematic service, to Amnesty, in which the *responsable* of the telematic service admits she is "at war" with the editor of the association's magazine. Financial obstacles are no less important. Aspasic steers clear of issues of local concern that could ignite popular controversy for fear of upsetting its funding source, the local governments. And economically speaking, the services that work best are outside of the commercial logic of the telematic industry. If Amnesty "works" it does so because Aspasic provides it at low priced (essentially below-market) technical support. The same is true of Telise's relationship with Actionsp.

In terms of the levels of interactivity the highest one finds generally is level three, in which the medium becomes a means by which dialogue may be conducted. For the groups with both cultural and political goals such as UDB or the Corsican independence movement the dialogue conducted by means of the telematic medium is not inconsequential. But its importance, it must be noted, is because these are groups that call upon a high level of engagement on the part of a narrow group of very committed activists. They are amplified by telematics because they have this target audience. This is among the most important observations--that this marginal medium is most crucial to marginal groups.

The key application from among these examples is Fac, the service for the student strike of 1986. It is the only one that touches level four interactivity, earlier termed activational, meaning "a purposeful interaction" in which "cognitive activities are accompanied by overt behaviors." During a very brief period of several weeks the telematic service became the principal "official" medium of a group engaged in political action with the highest possible profile. This example, which is also seen to a lesser degree in the case of the SNES and FEN services, shows the simple but unescapable truism that conflict generates usage. When there is the confluence of well-publicized conflict, an effectively organized interest group, and a well-designed telematic service, the online address becomes an crucial communications tool. But all three of these elements--loud issues, cogent groups, and timely telematic services--are rare.

In this can be seen the potential energy stored in the demographic overlap between the citizens most likely to participate in group activities and those most likely to be regular user of telematics. Similar flashes are likely in the future, although the limits have not yet even been conceived. What if a powerful group were to use telematics to organize demonstrations designed to bring down the state? As one observer noted dryly, "that simply would not be permitted" (Claude LaMotte, telematic editor of LeMonde, personal interview, July 1988).

Chapter VII

Discussion: Minimal Effects and The Myth of Interactivity

In analyzing how this new technical capacity for interactivity is adopted by organizations of political significance, the task clearly is one of accounting for minimal effects. Despite the mass reach of telematics in France, the instances in which the presence of this new medium influences the relationship between individuals and their institutions are rare, an 'almost never' phenomenon. Analyzing the reasons for this reveals some obstacles to a greater political impact that are specific to Minitel and to France and others that are likely to remain with interactive media throughout generations of more capable technologies. In many cases, the potency of telematics is not to be seen in actual, concrete, and observable cases of telematic-based interaction but in the successful exploitation of the image projected by telematic involvement. This myth of interactivity is remarkably obdurate, even in the face of experience that should undermine it.

The reason that mass scale telematics has had minimal political effect in France may be broken down to technical constraints, organizational obstacles, audience limitations, cultural confines, the appropriateness of this medium for political discourse, and the passage of time and the loss of novelty. While overlapping, each of these alternative sources of explanation provides part of the answer. Acceptance of one set of explanations leads to the conclusion that more capable interactive media may ultimately have capacities that will allow them to challenge the televisual regime. However, emphasis upon a second set of obstacles instead interprets the televisual regime as quite impervious to challenge by a nascent interactive regime, even as its technical capacities increase.

A first, and someone easier task, is explaining why electoral, governmental, and voluntary institutions adopt telematics at all. Then the discussion will turn to the reasons why many of these attempts at incorporation have either failed outright or remained marginal pathways for political communication.

I. The Case for Telematic Adoption

There are six key reasons to explain why an organization engages in telematic activities. Its efforts may spring simply from the desire to turn technical interactivity into social interactivity, from the uncritical rush to participate in a widespread and highly publicized social phenomenon, the hope of achieving cost savings or other efficiencies over traditional communications practices, a perceived overlap between the organization's target audience and the demographic construction of the Minitel audience, the need to provide a permanent address for a physically dispersed or politically marginal population, or an attempt by the organization to associate itself with the image of modernity that telematics provides. This explanations are not mutually exclusive but are present in varying degrees in many attempts to build successful telematic services.

A. Transforming Interactivity into Interaction

To at least some degree, all organizations built telematic services to open themselves up to greater contact with their members, voters, citizens, etc. The purest examples are *Démocratie Directe* and *Aspasie*, each of which were created in a deliberate effort to use the medium for political participation. In these cases the organization had no other reason for existing, no other benefits to be gained, no other objectives to be served.

During the time that it worked best, *Démocratie Directe* provided a means by which callers could either leave a message to be answered by party officials or pose

their questions directly in real time without the intermediary of a journalist or staff member. Politicians perceived it to be in their best interests to participate, since they would receive favorable publicity for doing so. They were especially attracted after learning that the threat of embarrassing themselves was minor. Thus, for a time anyway, *Démocratie Directe* did what it set out to do.

Aspasie was built for many of the same purposes but focused upon local participation. It provides a means by which callers in an area with little history or organizational infrastructure may survey the environment and choose participatory opportunities open to them. Its creators were guided in part by their enthusiasm for the technology itself and an ideological commitment to interactivity as a means of animating local social life. Still, as discussed below, Aspasie's creators were subject to some constraints on what they could and could not do to provoke local participation and usage of their service.

Neither of these service providers was able to find a means by which this could be done profitably. Although it gave birth to a number of other telematic services, *Démocratie Directe* went out of business. Aspasie has used its expertise to become a telematic service bureau for the not-for-profit community. Their difficulties in turning interactivity into interaction suggest not only that others would find similar obstacles, but that the benefits from telematic participation may, in fact, lie elsewhere.

B. Peer Pressure: Minitel as a Social Phenomenon

Fabricating an expectation of future success is the crucial problem in establishing any good or service that requires a critical mass of participants. Although aided as much by their missteps as by clever strategy, France Telecom was quite successful at turning Minitel into a social phenomenon, especially in the crucial take-

off period of 1985 to 1987.¹ A positive dynamic was created that fed on itself, leading to the creation of ever more services for an expanding base of users. Many of the telematic services analyzed here date from this period and from the diffuse and mostly uninformed hope that telematics was going to amount to something. In any case, it might, and therefore the concerned organization felt it should be sure to seize whatever opportunities there were to be captured.

The *responsable* of the Catholic Church's service 3615 Gabriel expressed this motivation well in explaining simply, "we took our place." Since this new medium was going to exist, the organization then in existence to provide media expertise to religious communicators began a telematic service so that they would have a presence in this medium as well as the others. The shallowness of this motivation made it difficult for the services it gave birth to to survive. As this case shows, the service then grew from a focused application (providing information to journalists on the Pope's visit) into a huge and largely unused database that was difficult and expensive to maintain.

But it is not just a matter of Minitel sweeping the country and becoming implanted in the public's consciousness, of creating the expectation among its clientele that an organization would have a presence in telematics. Group pressures among parties, administrative agencies, cities, unions, etc. have also led some into telematics. This phenomenon is especially noticeable in the services of the political parties. Despite repeated failed attempts, the Socialist Party has tried again and again to create a viable telematic service. It is an effort that appears disproportionate to its actual costs, which (by dividing the reported monthly operational expenses by the average

¹ For example, the crash of the Transpac packet switching network, which serves as the backbone of the Teletel network, in the summer of 1985 was an avoidable technical disaster that nonetheless provided a huge publicity boost at a time when fewer than a million Minitels had been distributed.

number of monthly calls) come to more than 15F per call, an estimation assigns nothing to either the service's development costs or staff time. The creator of the party's current telematic service says it was begun "to see what telematics could do for them" (Gérard Obadia, personal interview, April 1992). And while that lack of a concrete goal is likely true, the party's willingness to spend between 6% and 8% of its communications budget on telematics may be interpreted to stem in part from a sense of obligation more than from an analysis of concrete benefits, or the sort of cost-per-thousand reasoning by which other media investments are made.

At the other end of the political spectrum, the *responsable* of the telematic service of the *Front National* expresses this sentiment most clearly:

We are obliged to have a telematic service, if only to list who are our *responsables* and to distribute our press releases. It is very close to the idea of a public service (Arnaud Soyez, personal interview, April 1992).

While the motivation of leading edge adopters is to be out in front of others, this sense of obligation is not only of value in explaining trailing edge adopters but also in understanding why the services continue to function even after proving themselves to be of modest or questionable value to an organization's goals.

This same sense of pressure from the participation of other organizations can be seen in some of the governmental and associational services as well. As the *responsable* of Bordeaux's service said, at the time that their's was open in November of 1989 "it was abnormal not to have a service," since all similarly-sized cities were already online (Jean-Claude Chanut, personal interview, March 1992). The same idea was also expressed by operators of some of the telematic services for unions.

This motivation is perhaps most important for the telematic participation by administrative agencies. As the experience of *La Documentation Française* shows, the first administrative services were begun when France Telecom was trying to increase

the supply of telematic services. Their proliferation was caused in part by the acceptance of offers by commercial service bureaus to create a telematic service at minimal cost to an agency, so that the service bureau could then keep the revenues stemming from whatever traffic the service generated. As Françoise Trapon of *La Documentation Française* put it,

Many of these have no one responsible for them and are not updated or maintained. They receive little promotion and don't become part of their agency. They are not killed off because nothing is ever ended in the administration (personal interview, March 1992).

Thus, in this case, the combination of the expectation on the part of the public that agencies would have telematic services, the assumption among administrative decision-makers that they should participate in this initiative, and the fact that it could be done so at little or no cost to the agency all conspired to bring the services to life. Yet, these circumstances do not lead to a close integration of telematics and the agency's responsibilities. As Trapon points out, "it is difficult under these conditions to keep the service going afterwards."

C. The Improvement of Established Communications Practices

In a number of cases, organizations created telematic services in the hope of improving an already-existing means of communicating, or because the computing power was already on hand, thus making the step to telematics relatively inexpensive.

An example of the first of these is the *Force Ouvrière's* service, which was designed to improve upon the distribution of memoranda to the union's local, regional, and national affiliates. This had previously been accomplished by telex, which was perceived to be too slow. Another example is the creation of telematic services by the SNES and the Education Ministry around the annual *mutation*. SNES could offer specific advice to teachers in filling out their dossiers online, and the Ministry, as the *responsable* explained, could use telematics to rationalize (and

maintain) what had become a virtually impossible administrative task. In each of these cases, the old way was in essence speeded up by telematics.

The telematic experiences of both the CGT's public employees division and the service created by the FEN show how the expansion of in-house computing may serve as a path to telematics. CGT's Actionsp service grew out of the computerization of the production of its internal newsletters, which made the creation of a telematic service a technologically plausible next step. The fact that the same people run the telematic service as edit the publications is fortuitous, because it lead to an integration of the two that intimately interwove telematics and publishing. This is a key reason for the success of Actionsp. The FEN's service is unusual since it was done entirely by the person responsible for the organization's computing with neither outside contracts for the design or operation of the service. It represents extreme independence and exploitation of internal technological capabilities. However, since the person building the service is responsible not for publications but for computing, the synergy that benefits Actionsp does not work on behalf of the FEN's services.

The telematic application built by SOFRES for the television program *L'Heure de Verité* may also be seen as an extension of their previous capacities. Minitel allowed the producers of *L'Heure de Verité* to add the telematic poll to phoned-in comments from the audience, both of which were used to reinforce the legitimacy of the questioners as the representatives of the audience. SOFRES, for its part, was of course already well-equipped in terms of its computer power.

In the governmental realm, the motivation on the part of Nantes to reduce the number of telephone calls to City Hall by building a telematic service falls into this category, even though it had to acquire the necessary computing power. The same is true of the Defense Ministry's *Armée* service, which provides the means by which young men may inquire about their obligatory military service without having to call

or visit an office. The same is true for some associations. As the *responsable* of Abita said, "the primary benefit to us is being able to move [users'] search for information from the telephone to the screen."

However, while an extension of already acquired technical capacities allows these resources to be more fully utilized, the genuine integration of telematics and an organization's communications tasks is unusual. The CGT's Actionsps service, in which the linkage between print and online media is continually reinforced, is a notable exception. The telematic service of Villeurbane is also an extension of the city's computer capabilities and is better integrated with the municipality's other media activities than most other municipal services. Yet, it remains quite marginal.

D. Overlap between an Organization's Target Audience and the Minitelists

While France is the best example of popularizing the telematic medium and distributing access quite widely, there are still demographic biases that are apparent in looking at the telematic audience. Minitel's user base, and particularly those who use it most heavily, tends to be comprised of young, urban, (slightly) male, and relatively well-off people. Yet, these demographic characteristics, especially youth, may be the ones that define the audience an organization is trying to reach.

The best example of this is FAC, the service created for the student strike of 1986. Minitel offered a number of advantages to strike organizers, including the ability to deliver a single message (such as the announcement of a demonstration) to a large number of people simultaneously or a number of specific pieces of information to, for example, students at a particular campus. Yet, none of these opportunities would have been able to be seized if not for the assumption that the people wishing to find this information would be likely and willing to look for it on Minitel. Strike organizers were on solid ground demographically in a way they would not have been if the task had been, for example, to organize rural shopkeepers.

This may also be seen in the telematic enterprise conducted by Libé, by the leftist and Socialist Party-related services, and to a lesser degree also for the services built for the organizations of nurses, social workers, and teachers. The print edition of Libé is sold to a young and urban audience, making telematic involvement a natural extension of the print product in terms of the audience served by the newspaper. The leftist political services, such as GAO, were self-consciously targeting the same youthful urban audience. The services created for nurses, social workers, and teachers also had the advantage of being directed to professionals who were likely to be comfortable with telematics and to have access to a Minitel. Although less often the case among government agencies, in at least one case (Viva in Villeurbane) the service was created in part because it was seen as a good way of communicating with a young, active, urban audience.

E. Providing a Permanent Address for a Marginal Communicator

A telematic address is often far more important for a politically marginal organization than it is for a wealthy, established, and well-staffed one with an ample presence in other media. This shows itself to be true especially in the realm of associational communications.

The leading example is Alter, the service dedicated to giving leftist-oriented political organizations an online identity. From 1987 to 1989, the service's organizers estimate that they created a new subservice for a new political organization almost every month. This telematic identity became the principal founding event of these groups, all of which made claims for the telematic revenues that would be generated by their participation. Most of these new political groupings only lived a few short months. This telematic identity was one of the few ways in which their lives were even recorded, since they never got around to having stationery, bank accounts, publications, or other resources.

Renouveau is another example of an organization that barely exists outside of its telematic incarnation. Other than telematics it is essentially a mailing list of organizations of like-minded people that rarely, if ever, meet together. The telematic service, however, permits its supporters to exchange messages in private that could embarrass it or even provoke legal action if shared in a print publication.

In the case of the services designed to support the movements for cultural integrity in Corsica and Brittany, the telematic services are adjuncts to regular publications. Their function is to allow people to communicate more rapidly than the publication cycle and to find information that has been published in the past. But they also serve as the functional equivalent of an office, with a front door that may be knocked upon or a telephone number that may be called. The number of calls from supporters who no longer live in these regions may be minor, but it must be measured against their overall numbers, which are also quite small.

Finally, one must include in this category the political movements that are so marginal that they borrow even an online address. So many right-wing groups have come and gone with different names on the electronic mail service Chez that its managers have to continually review new electronic addresses and remove the overtly racist ones (Guédé (1992), p. 4). The operators of the Bretonne service have had enough calls inviting people to participate in neo-fascist organizations that they now automatically suppress any message that contains the word "chez," on the assumption that what follows is likely to be a racist appeal.

F. Self-Consciously Doing Something New: Borrowing a Modernist Image

As seen earlier, the desire to enhance an organization's image by associating it with Minitel as a symbol of modernity has been an important factor in telematic adoption. While this is especially true in politics, it is also true among some of the local and regional governments.

The usage of Minitel by the RPR is the classic case. The party acted as if the gains it expected from Minitel were as much in the improvement of its public image as with any other potential benefits. The code 3615 Direct was very heavily used in its print advertising during the 1988 election cycle and appeared as well in its radio ads and on a bus purchased and painted to promote the Chirac candidacy among young people. That the message behind this--we are a modern and up-to-date party--rivalled any other benefits may be seen both in the disappearance of the service since then and the admission of its *responsable* that to create the same unspoken message today would require the use of audiotex, which now carries an aura of newness.

Minitel was also a means by which the *Front National* drew attention to itself. By being ahead of other parties it could project an image of being a part of the age and the latest developments. This is especially useful for the *Front National* because of its effort to distance itself from World War II memories of fascism.

On the left, Jack Lang's service was a conscious and deliberate effort to attract attention to him as a politician "*pas comme les autres*" (not like the others). He was more hip since he was online.

The disintegration of this benefit over time may be seen in the experience of the service created in the most recent election cycle. Not only was there only one this time, but that service didn't even generate a single news story on its existence. While the telematic code was on all the campaign's literature, the benefit, as the service's creator put it,

is more in the image than in usage itself...It is less and less a symbol of modernity as it has become more and more common (Gautier Guillet, personal interview, March 1992).

Thus, Minitel becomes less politically useful, even as more people have Minitels.

Although this phenomenon is most visible in the electoral realm it is also clear in the examination of several governmental services. In general, the early adopters

among the municipalities gained favorable press by their telematic involvement. In the case of Mirabel in Metz, the mayor was especially skillful at associating himself personally with the city's telematic service. The same image-enhancing motivation is seen in the case of Pref28, the telematic service of the *préfecture* of Eure-et-Loire. The press coverage it received for being *branchée* must be counted as one of the key benefits coming to the *département* for the money invested in telematics. As the *responsable* of the service of the city of Angers said, its service was begun because the mayor "wished to be among the first to have this modern means of communications."

In part, this expression of interest in the needs and opinions of members, citizens, or voters is heard by potential users because of their increasing physical isolation from one another. Between the 1982 and the 1989 censuses, the number and percentage of single person households in France showed continued growth. Between now and the year 2000 their number will grow twice as fast as the increase in the number of households (Vincendon (1990) p. 2; Petitjean (1991), p. 10). This is especially pronounced in Paris, where one of every two households contains only one individual. Half of all Parisians over the age of 20 live alone, and forty percent of them are under age 40 (Nesselson (1987), p. 7). As Gérard Prenant of *Démocratie Directe* put it, interactivity is an urban myth that resonates especially with people who feel physically, socially, or even politically isolated. The metamessage that "we are reaching out to you" may be, and often is, more important than anything other function served by telematics.

These six reasons for organizations to involve themselves in telematics do not exhaust all the possibilities. One may imagine others. However, whatever the benefit sought by telematic involvement, the obstacles to these organizations being successful at meeting their clientele online have been formidable and enduring.

II. Not: The Barriers to Telematic Adoption

The explanation of a non-event is a delicate task, since there may be a large number of overlapping factors that are impossible to isolate cleanly. Such is the case for the adoption of telematics. Some of the barriers to greater telematic usage by these organizations are technical (related to the device itself), some are organizational (related to the established patterns of organizational communication), some are audience-related (having to do with the users), some are cultural (stemming from French institutions and traditions), some are properly termed political (meaning having to do with the appropriateness of this medium for political communication), and finally others are related to the passage of time and the loss of the novelty of telematics.

A. Technical Constraints: The Difficulty of Using "Stone Age Telematics"

Several of the Minitel terminal's design constraints make it a difficult device to use for communication. It is what Miles (in Thomas, Vedel, and Schneider, 1992) calls "stone age telematics." Originally, it was built to support the interrogation of remote databases. And while the communications-oriented applications at the higher levels of interactivity--which require sending words both upstream and downstream--are possible, they are not easily done with a Minitel.

The first key constraint is the tiny screen, which measures 23 cm diagonally and which supports, most commonly, a 40 column display. At its largest possible dimensions, it provides for a screenful of information that is 24 lines by 40 spaces. Typically, however, the space opened for a user to send an electronic message to another user is half of the usable screen area (taking into account the visual frame that identifies the service to which the user is connected), or five lines of 40 spaces. If a word is, on average, five letters followed by one space, then the typical Minitel message space only allows 33 words. Although messages may be continued to other screens, a user's patience is often worn out long before the tenth message, which is

to say well short of the number of words typically found on a on double-spaced typed page. Thus, while storage space on the host computer, the equivalent of the number of pages available for the editor of a magazine or newspaper to fill, is unlimited, in reality the basic message unit is quite small.

The smallness of this space significantly marks the way in which the medium is used. It influences what kinds of words are appropriate and what sorts of responses to questions are possible, and hence expected.

First, the economy of space has led to an economy of language, which resembles the often cryptic shorthand of classified advertising more than the prose of expository writing. When the *Federation des Centres Sociaux et Socio-Culturels de France* (FCSF) began its telematic service, it was intended to replace an internal newsletter. The FCSF found, however, that not only was Minitel not consulted often enough to serve as a replacement, but that it was unsuitable for transmitting inspirational messages from the organizations's president to the staff of local centers. "This requires long sentences and can't be done by Minitel," as the *responsable* of the service put it, because the Minitel is for "short sentences and ideas" (Brigitte Morin, personal interview, March 1992).

More highly-charged political interaction reveals another shortcoming. Responses to the questions posed to politicians are extremely short, and bear a greater resemblance to non-answers, to deflections of the question, rather than what would be an answer in a verbal exchange. In *Liberation's* coverage of what could be seen of the 1988 campaign on Minitel, Thierry Benoit underscored the importance of this limitation for politics:

Imagine explaining in eight lines of thirty characters the economic policy of the Socialist Party. Once you're written "The right has chosen to encourage short-term financial speculation, we have chosen to support productive investment," the screen is almost filled up.

So not only does the space limitation determine the way in which conversation between users is conducted, it provides a convenient shield behind which unforthcoming respondents may hide.

Another important physical limitation that serves as a technical constraint to communicating by Minitel is the size of the keyboard, whose 65 keys are squeezed into an area 23 cm by 10 cm. As Feenberg (1992) points out, it is decidedly "unbusinesslike" and reveals the designer's intentions that it be used primarily for screen-oriented consultation of data banks rather than person-to-person communications. The keyboard, he concludes, "with its unsculptured chiclet keys, is so clumsy it defies attempts at touch typing." The fact that it is a difficult keyboard to use magnifies the obstacle provided by the fact that it is a keyboard-based device. As the *responsable* of one service said, "lots of people have trouble with keyboards."

Another simple but profound design-related reason that Minitel is a marginal medium is that it is silent. Although when the Minitel is turned on a service provider may send a data stream that makes the terminal emit a beep, that is the only noise it generates. It doesn't ring and doesn't demand attention. As one *responsable* said concerning the failure of users to consult their electronic mailbox via the Minitel, "they really don't look at it. If there was a red light attached to it, then maybe" (Yves de Lestang, personal interview, April 1992). Thus, as with other bi-directional media like the telephone, its political impact is mostly expressed as a potential that is called into action on very rare occasions that are the exceptions rather than the rule.

All of these constraints may be seen as technical limitations imposed by the demand that the device be reproducible in large quantities at minimal cost, with the technology available when it was designed in the 1970s. While the attributes may be improved upon with time, they are limitations built into Minitel, and an important

reason it is underutilized by its potential audience, especially as concerns the interpersonal exchange that characterizes the higher levels of interactivity.

B. Organizational Obstacles: Kinks in the Supply of Telematic Services

If the organizations studied here do not show greater integration of telematics with their established patterns of communication it is in part because they do not seek it. They fear both failure, or pouring too many resources into telematics for an insufficient payback, and success, meaning the disruption of established organizational hierarchies should telematics become a major communications pathway.

The fear of failure is by far the best understood threat. The histories of services that have ceased to function show what those responsible for them fear most: the waste of organizational resources to the point where they are forced to pull the plug. Many of these have died for reasons unrelated to organizational obstacles. As discussed below (classified as time-based constraints), the loss of a key application--messaging--to the fax machine and the loss of novelty as telematics became widespread are also leading causes of death. But even without those two problems, there are also organizations that have just reached the point of exhaustion with an activity that came to require far more resources than anticipated, for far less reward.

Significantly, that has primarily been the case with organizations whose resources are restricted and can only make limited use of Minitel as a means of promoting themselves as modern, efficient, up-to-date enterprises. Few of the municipal or administrative services are cancelled. More often, the service is allowed to evolve from the original goals to new ones, such as was the case with Tatou, France Telecom's internal service, which found an entirely different application than

that imagined at the start. In the associative sector, however, numerous organizations killed off their services after realizing that its original goals could not be met.²

The number of once-living but now dead services is impossible to know. Some examples are the telematic service of the Marxist journal *M*, the feminist organization *Dialogue*, and the leading anti-racism organization *SOS Racisme*. It is not difficult, however, to find the reasons behind the cancellation of their telematic involvement, since it may be seen in other examples. Alter no longer exists in part because the mostly volunteer effort finally reached the point where it was no longer possible to sustain the effort required to keep the service updated. CSX and Abita are also two examples of services that appear to be dying. The *responsable* of CSX defends its continued existence ("we can't let what we've invested just disappear") by pointing to its database functions, which cannot be realized by alternative means. Yet, this part of the application generates less than an hour's worth of monthly consultation. In the case of Abita, the continued dedication of 15% to 20% of the organization's budget to telematics was under active reconsideration at the time its *responsable* was interviewed. With usage of these services and others like them only marginal at best, their continued existence is threatened.

Another key organizational obstacle is the inability to entirely substitute a telematically-delivered service for the traditional one. Thus both the old way and the new one are maintained. On Telise, for example, parents may sign up their children

² The inability to gather sufficient data on services that are no longer working, such as was the case with the municipal service Clamtel for the Paris suburb of Clamart, has to be considered an important source of bias in this research. Although several services profiled herein are no longer functioning, such as *Démocratie Directe* and Alter, their numbers are greater in the population of telematic services ever created than in the sample of services studied here in detail. Only one service studied here, the student strike service Fac, both began and ended before this study was begun and left sufficient trace of its existence to be included.

for recreation programs, but not all the places are available since it would provide an unfair advantage for households with Minitels. A popular usage of Pref28 is to request a certificate that shows that there is no indebtedness on an automobile. But, of course, other means of accomplishing this must be maintained. And on CSX the Paris office can't really substitute messaging to all of its local centers since not all of them have Minitels and not all with Minitels regard their mailbox regularly.

A final organizational obstacle that leads to failure is the argument, made by some *responsables* that while telematics may have its role, its organization's membership is not appropriate for an expansion of telematics. The *responsible* of CFDT, for example, says they cannot do more with telematics since "our *militants* are 40 years old on average and they aren't used to this medium."

The other side of the disinclination to invest in telematics out of a concern of a further loss of time and money is the opposite: a fear of success. Not only do organizations not wish to engage in telematics because it may fail, they're also unwilling in many cases to allow it to succeed.

One finds repeatedly the argument that more could be done with telematics, but "that isn't how we do things around here." In the CFDT, the closest the service comes to having something to do with the internal competition for control of the union is the reporting of election results. Union decision-making, as one of its officials said, involves "certain stages that must be followed." Using Minitel to solicit participation "would break down these levels of consideration and action" to which "there would be a great deal of resistance."

The same is true of interaction with municipal decision-makers. Like other municipal telematic services, Telem steers as far as it can from anything that might be considered contentious. One of Mirabel's greatest successes at generating usage put it at the center of the city's communications operations for a very short period of

time and was never done again. In Angers, the *responsable* says that the mayor of course isn't afraid of interactivity, he just does not have the time to respond to all the questions that would come in. More interactive applications were possible on Francomtel, including electronic mailboxes, until "it turned into a *messagerie rose*," meaning until people used it to communicate to one another. Telise has also experienced the suppression of things that would generate controversy and usage.

Even the electoral services, nominally committed to permitting discussion of ideas, quickly reach the point where they are uncomfortable hosting anonymous, uncensored interaction. For a time RPR had a *messagerie* for a limited number of hours a day, but decided that it could neither permit absolute freedom nor supervise the unsupervisable. The *Front National* not only gave up its *messagerie* but also anything interactive, which is "too dangerous." And not only is interactivity a danger, even the Minitel terminal itself can be seen a threat since it can be used for other things. Many of the centers belonging to the FCSC, for example, don't have Minitels out of the fear that people will use it for play, thus running up the telephone bill.

Related to this is the fear of biting the hand that feeds the service. Aspasié is a good example of a service whose content limitations stem in large measure from its awareness that it must not offend the municipalities that sponsor it. They may do many things, but they may not produce a forum by which political opposition to the municipalities it serves may be organized. Although built to support participation in local political life, its *responsable* responded with nervous laughter to the idea that people be invited to express themselves on the construction of EuroDisney. This would invariably lead to expressions of hostility that would be quite unwelcome at the various city halls that pay Aspasié's bills.

In conclusion, finding the proper balance between enough participation to keep the service going but not too much, which might destabilize the organization running

it, is a delicate task, accomplished in only rare circumstances. It is difficult for telematics to achieve this equilibrium and be a happy medium.

C. Audience-Related Barriers: Limited Demand

Despite the difficulty of using the terminal, the expense of running a service, and the time involved in responding to users, organizations would do so if telematics commanded the raw audience power that forced them to. If it presented an version of reality that a huge number of users shared, like television, both the technical and organizational obstacles could be surmounted. But it doesn't. Television was cited as the leading source of political information in the US as early as 1952, when only half of all households had one (Zukin (1981), p. 373). As a result, political communicators were obliged to adjust to the presence of the new medium. This is far from being the case with Minitel.

There are three ways in which the telematic audience is something less than everyone: the population of Minitel-equipped households is only a fifth of the total of French households, these households contain a subpopulation that is demographically distinguishable from the total population, and actual usage of the device by members of these households is heavily concentrated. These have all been discussed earlier as characteristics of demand that all service providers must content with. Yet, they are not necessarily obstacles to the adoption of this medium and its integration into the communications practices by political groups and institutions. One could easily imagine that the core of the Minitel audience could be the sweetest and choicest population to reach: young, active, well-off and highly sought-after by these organizations. The real obstacle is not just that it is less than everyone, it is rather that the core Minitel audience is just too small for many of these organizations to profitably reach online.

While videotex usage in France is concentrated, this concentration must be compared with other media. Among the more than 2,300 journals sold at kiosks in France, 180 of them generate 80% of sales receipts (Albert (1990), p. 67). The 2.5% of the French population that sees at least one film a week buys 32.8% of all movie tickets, while a solid majority (55.8%) does not see even one film a year (Bonnell (1989), p. 24). A fifth of all households produce half of all telephone consumption (the 6% that use it the most generate a quarter of total consumption), while the half of all households that use the telephone the least generate less than a fifth (18%) of total consumption (France Telecom--DPAF (1991), p. 36). In the case of television viewing, Hantrais (1982, p. 167-8) reports a 1977 study by the *Institut National de l'Audiovisuel* which found that 30% of the viewers aged 15 and above were responsible for 61% of all hours of television consumption. A more recent study by Médiamétrie in 1989 found the fifth of the audience that watched the most TV accounted for almost half of all television consumption. These heavy television viewers are overwhelmingly (70%) older than 50 years of age and predominantly (60%) female (Kieffer (1990), p. 6).

Still, relative to the concentration of consumption of other media, the narrowness of telematic usage is extreme. Just 3% of residential Minitels account for 31% of traffic volume. A quarter of all Minitels generate 71% of volume. The 61% that are least active generate only 17% of telematic usage (MV2 Conseil 1988, p. 24). Thus, while a minority of the audience consumes a large portion of television broadcasting or produces the bulk of telephone traffic, virtually everyone engages in some television viewing and some telephone calling. With telematics the problem is not that there are distinguishable social characteristics for the portion of users who consume more than anyone else. What is missing is the lesser amounts of consumption shared by all.

Because of this, when the minority of Minitel users is overlaid upon other minorities such as the politically-engaged or the participants in associations the resulting intersection is tiny indeed. Very few telematic services are directed to everyone, like the electronic directory or, for example, the service of the French national railway. The others have target audiences that are significantly smaller. Thus, the problem of achieving "lift off" to get the medium started as a national phenomenon is just the first critical mass problem. All the other services--from political parties to cities to voluntary groups--must achieve their own critical mass. Few have done so, meaning their services remain, relative to their operation, mere sidelines to their real business.

D. Cultural Confines: How the French Participate Offline

The two principal cultural limitations on the organizational adoption of telematics are the way the French participate in politics and organizational life and the tremendous centralization of the French decision-making apparatus. The traditional strength of party voting in the legislature, the weakness of municipalities as sites of power and participation, and the marginality of interest groups all influence the uses to which this new medium may be put.

French political culture inhibits extra-electoral participation. Since party voting is so strong in the national legislature, *deputés* do not really need to know what their constituents think in order to decide how to vote. Cities have only quite recently gained control over significant local decisions, and are distrustful toward public participation. Well-financed interest groups might organize their memberships and their members' demands, but this form of participation is undeveloped in France. In all of these cases, the new medium could be used if the standard practices of political interaction presented an opening. But they don't. As a result, the organizations seeking to use telematics are already fighting an uphill battle.

Two examples are Amnesty and MVP, both of which were created long before telematics and both of which exist in other countries. They were organizationally weak before they attempted to use telematics. In the case of Amnesty telematics may provide some marginal support as a source of funds, but is far from the kind of profitable venture that can support other parts of the organization in the way that Libé's telematic service is financially beneficial to the enterprise.

But these groups are not just fighting organizational weakness in terms of the maintenance of ties with their members. The institutional environment is heavily weighted toward the state apparatus. Parties, local governments, and interest groups have relatively little power that they might share with their members. The state's preferred mechanism for consulting with public is the use of more than 15,000 consultative bodies which, as Hayward (1983, p. 60) says "have collected like barnacles around the bulk of official decision-making bodies." By this means participation may be channeled, managed, and controlled with ultimate decision-making responsibility remaining the privilege of administrative personnel.

Thus even while telematics has been rhetorically linked to both participation and decentralization there is very little substance behind it. Moreover, despite their arrival as political symbols that all parties lay claim to, little progress has been made in either decentralization or new participatory innovations. Power is still heavily concentrated in the hands of a small number of Paris-based administrative officials. Not only has telematics had little effect in changing this, but not much else has either.

E. Online Political Discourse: Interpassivity and Politics in Virtual Space

What distinguishes the cultural obstacles above from what may be considered problems with online political discourse is that the former are culturally specific, while the latter are problems with using interactive media for political communication

that are built-in and likely to remain with it regardless of how it is configured technically or what organization or culture it is introduced into.

The most important of these is that interactivity requires activity and initiative, which is to say at least a minimal level of political motivation in order to turn on the machine, login to a service, and spend money using it. The political effects of other media are essentially built around their ability to pierce viewers' inherent disinterest in political content. While a portion of the citizenry is engaged in surveillance of the political and social environment due to cognitive needs and diversionary interests, passive learning on the part of the politically unmotivated "may be the dominant mode of citizen learning" (Zukin (1981), p. 374). People engage in newspaper reading not with the purpose of informing themselves politically but to relax and amuse themselves. They do not so much seek to inform themselves politically but happen upon it while doing other things for other reasons.

One's eyes do not randomly fall upon news and information via telematics, much less upon a service built for one's particular group identities or political inclinations. The fact that one must pay for the privilege of doing so is no doubt a barrier. A half an hour spent on 3615 is seven times the cost of buying a newspaper. But even if it were free users could not participate in telematics with the same passivity and disinterest that characterize their engagement in other media. Thus, by definition, interactivity requires action, which severely reduces the interested audience, something that would be visible if one could separate viewership or readership of particular news stories from their vehicle. At the height of radio's political influence, for example, surveys showed that almost half of listeners wished there was less politics (Griset (1991), p. 75). The very fact that interactivity demands action means that those who wish to avoid political content may do so with ease.

Another problem with interactive media as a tool of political participation is that virtual space--the simulated place in which people meet--has only a very limited utility as a political forum. There are two reasons for this. First is the pseudonymity of users and the rupture between their real selves and their online identities. Any interaction between them--the key to reaching the higher levels of interactivity--is thus cut off from the physical world in which they live. But even if the institution that controls the medium forced users to communicate with their real physical identity the medium of electronic text severs the words from their creator. As Poster (1990, p. 111) puts it, computer-based communications "dematerializes the written trace." Both of these mean that online interaction is cast adrift, left to float far from the world in which real human beings struggle for power.

As Jouet (1987, p. 81) observes, social interaction via Minitel takes place in a space mediated by technology and, for the most part, stays there. Users are able to play games with their identities. Their representational self may be close to their real self, as is often the case. Yet, users can take advantage of a medium in which all stimuli must be actively communicated (no sight, smell, sound, etc.) to keep hidden what they do not wish to reveal. (This may even be true between individuals who know one another.) The consequences of this for social and political life outside of the mediated exchange is that the media-based interaction is entirely decontextualized. A social or political context may be partially reconstructed by an online service that simulates an environment in which, for example, Socialists or union members are welcome. But the individual participating in such an exchange need not suffer even the social and psychological consequences of getting up and leaving a room or meeting. All he or she need do is turn off the Minitel--without even saying goodbye. There are no reverberations of anything he or she says or does online, no linkage with his or her real life identity.

Moreover, this would only be slightly changed if France Telecom forced users to be identifiable online, for example by their telephone numbers (a unimaginable event). Electronic text has no physical form. As soon as the machine is turned off, the words disappear, and with them their social and political impact. Some amount of linguistic interaction is possible on Minitel by those willing to surmount the technical barriers. But the equivalent of pamphlets, documents, or books that serve as a rallying point for like-minded individuals are almost unknown. What one sees on a Minitel is text, but it cannot replace texts.

In summary, electronic sociability is different than that produced in other social spaces. The (virtual) public spaces that allow human interaction online are the conceptual inverse of the Walkman: Using a *messagerie*, a person is physically in private but metaphysically in public. The words found there are evanescent and immaterial and cut off from the person producing them. Virtual space is a bad place for politics because it liberates the physical self from the emotive or representational self, and interaction involving this fictive self has no consequences for the other, real self that exists in a political community.

F. The Passage of Time: Evolution of the Media Matrix and the Loss of Newness

Another way of looking at the failure of telematic services to become institutionalized is to recognize that some which are no longer functioning did in fact work for a while. But both the French media matrix has evolved with time, giving Minitel some new competition since its beginnings in the mid-1980s, and the newness that a number of service providers exploited has disappeared, leading to their disappearance as well. These obstacles to telematic adoption may be seen in the histories of three services whose obituaries are told in the previous chapters, despite the investment of considerable time, effort, and money. They are *Démocratie Directe*, *Alter*, and the regional CFDT service *Cedetel*.

...

Among the most important elements in the evolution of the French media matrix since the telematic program was launched is the introduction and widespread adoption of fax machines, which not only take some messaging functions away from Minitel but change the sorts of things telematics is expected to do. The life history of Cedetel shows this quite well, but it is also to be seen in the evolution of CSX. Cedetel was formerly used primarily for messaging, which was gradually taken over by fax until the telematic service died of disuse. CSX continues to function, but as its *responsable* said of fax, "no one is afraid of it." It eliminates the need to touch a keyboard. As discussed earlier, fax cannot replace CSX's database functions, but the loss of messaging as a telematic application can greatly alter the profitability of the investment.

The passage of time also kills the novelty of Minitel. Some services did, in fact, work when the device was new but no longer function in large measure because the novelty has worn off. *Démocratie Directe* and Alter are good examples. The very *raison d'être* of *Démocratie Directe* was to make a profit off of telematics as a medium for political participation. Its death was due in part to the limited audience response to its service offering and the inability to do so while still operating as a commercial enterprise.³ The success that the service had in attracting guests for teleconferences, free publicity to promote their appearances, callers to ask questions, and local politicians who would pay for such an event to be conducted in their area lasted only as long as it was a new idea. Once it was rendered commonplace (political guests could appear on their party's service, newspapers no longer considered teleconferences news, callers were no longer as excited by the chance to

³ Still, as noted earlier, the service was the means by which its creators found other commercial clients. In part it no longer exists as a loss leader because they no longer need it as a way of attracting customers.

question political leaders by Minitel) the foundation of its existence crumbled. In the case of Alter, organizational exhaustion is probably a more important cause of death. But the diminution of usage is another key factor. With time, potential callers were less impressed with the very idea of a politically correct telematic service.

Both the introduction of fax and the loss of novelty are problems that the entire telematic industry has had to adjust to. Neither are inherently insurmountable problems. But they do reduce the range of telematic applications and user base somewhat, turning what may have been marginal telematic operations into costly drains on organizational resources.

III. Conclusions: A Silent, Feeble Medium Quite Easy to Ignore

No matter where one looks at French political communication--at the political parties, associations, administrative agencies, or local governments--there are strikingly few attempts to use Minitel as a tool of empowerment. In all of the examples, it is the organization rather than the individual that is strengthened by telematics. Although there are exceptions in times of crisis, in normal organizational life Minitel is far from being a direct line to the centers of power. Where it exists at all it is a path to a very remote part of the organization, routinely ignored by decision-makers. It marginally strengthen some ties between individuals and their organizations, but if it carries messages the organization does not wish to hear, this silent medium is easy to ignore.

Minitel is clearly too weak a medium to produce even a threat to the social and political relations built under the televisual regime. Yet, as this chapter shows, some of those reasons are related to the technology upon which this medium is built and this cultural and institutional environment. Other reasons are inherent characteristics of

the interactive media that appear in this, its first generation to reach a mass audience, to be immutable.

Among the reasons that organizations do use telematics are because they are looking to turn interactivity into genuine interaction, the desire to "take their place" in this new medium, to achieve cost savings or other improvements over established communications practices, because Minitel is a good medium for reaching their particular target audience, because it is a means by which members of a dispersed population may find one another, or because participation can provide them with the image of a modern organization that uses interactivity because cares about its members. The most important of these is the desire to cash in on the image of telematics, to show members, citizens, or supporters that the organization is interested in what they think and wishes greater interaction with them. If Minitel has been able to capitalize on this myth it may be due in part to changed living patterns that have vastly increased the number of people who live alone.

In terms of explaining non-adoption, placing interpretive emphasis on the technical and cultural constraints to a greater telematic impact focuses upon explanatory elements that are almost certainly impermanent. Future generations of interactive media will only barely resemble Minitel, since they will be built according to design limitations that have vastly improved since Minitel was put into mass production. And while it is possible that the next physical device providing access to interactive media for a large percentage of a population will be French, it is likely not to be.⁴ For these reasons, barriers to the widespread adoption of interactive media

⁴ This is speculative, to be sure, but the same opportunity for technological leap-frogging that moved French telecommunications from the bottom to the top rung is now available to others. On the other hand, the French could renew the telematic program by seeking to exploit their widespread capacity for high speed digital communications (ISDN) with the distribution of a vastly improved Minitel-like device. However, France Telecom is now at least nominally a private company and, in any

such as small screens and keyboards will eventually disappear. In addition, the particular patterns of French institutional life such as the strength of party voting in the national legislature and the relative powerlessness of French associations and local governments, are factors that would be quite different in a different national setting.

What are here termed the organizational obstacles and the political problems with the adoption of interactive media are more enduring. It is clear that the number of organizations gathering what they perceive to be enough interaction with their target audience without getting too much is quite small. The common organizational dynamic traps telematic *responsables*. They are required to get enough usage to justify their organization's investment and operating expenses for telematics. But they may not make substantial demands for support from other parts of their organization for replies to telematically-delivered inquiries, they must also not engage in the kind of activities such as debate and discussion that provoke telematic usage because that also may provoke organizational dissention or frustration. Most often the services are too cold or too hot. Very seldom are they "just right."

What are called here political barriers are part of the very nature of interactive media. By requiring far more initiative on the part of the user before there is service before his or her eyes than is required by other media, all but the motivated are excluded, by definition. Serendipity plays an important role in the gathering of political information in other media. But in a medium that demands a high level of initiative on the part of the user one does not come across information by chance. In addition, the virtual space created by telematics that serves as the equivalent of either a real public place (the square in the center of town, the meeting hall) or its simulated counterpart in other media (the television talk show, a newspaper's letters to the

event, there are no signs at present of this happening.

editor) is not especially well suited for politics. Only the thinnest possible linkage exists between the words one expresses online and one's real identity in a physical community. Not only are these linkages cut by a pseudonymous identity, but the ephemeral and immaterial nature of electronic text itself further distances the person producing words from their effect and from any personal responsibility for them.

Audience-related and time-based factors are somewhat different than either the particular obstacles to Minitel adoption or the general obstacles to a greater impact for mass scale interactive media. They may either be interpreted as particular or general. Interactive media could indeed reach the point in which the audience for it was of a size and breadth that demanded it be dealt with, although that has certainly not been the case with Minitel. Likewise, a medium must achieve a critical mass among certain subgroups of users as well as the nationwide, commercial threshold often thought of as critical mass. That is also only rarely the case with Minitel.

In terms of time-based constraints, there are no inherent reasons why the platform upon which future interactive services are built cannot be upgradable and thus avoid the technological rigidity of the Minitel-based platform. But since it is impossible to know the technical attributes of a different generation of interactive media it is not possible to assess its peril at being rendered technologically obsolete or losing some of its functions to newer media. By the same token, while the loss of novelty is no doubt a problem to be faced by any new communications product or service, it is not necessarily fatal, as it was here in several cases. It may be less of a problem in the future if interactive media are, unlike Minitel, physically integrated with voice- and video-based media. Then again, it may be an even greater problem as the technological sophistication of new generations of interactive media make them less like tools and more like toys.

The separation of these reasons is a crucial task if democracy is to be considered as a public good that one wishes more of when designing new generations of interactive media. The technical and cultural barriers are not going to disappear, but they will not be the same in all cases. The same would be true of audience-related and time-based factors. Were it not for other likely obstacles, it would be possible to imagine a media regime in which the sum of individually-crafted messages would outweigh the power of the smaller number of messages received by all. However, the organizational and political obstacles observed here are probably a part of the nature of the medium itself. The political potency of sharing easily accessible sounds and images is not likely to be challenged soon by a medium that remains text-based and absolutely requires the very active intervention on the part of its users if it is to do anything at all. Its value lies in great measure in the improvement a participating organization may gain in its image as open, caring, and responsive, regardless of the measurable amount of actual interaction it gets by means of telematics.

Chapter VIII

Conclusions: Democracy and The Prospects for an Interactive Regime

Contrary to the often touted belief that the world is changing ever faster, a review of past innovations clearly shows that it takes a long time for an innovation to find commercial success. Like overnight sensations in the entertainment industry, many "new" technological products spend years perfecting their acts in seedy nightclubs on the unfashionable side of town.

-- Steven P. Schnaars, Megamistakes: Forecasting and the Myth of Rapid Technological Change (1989), p. 137.

A. Challenging the Televisual Regime

Despite the high public profile of telematics as a medium in France, the televisual regime is virtually unchanged by the introduction of Minitel. The two principal reasons for this are the rudimentary nature of this first generation interactive medium and the socio-political context into which it has been introduced, which provides few genuine opportunities for participation. Those rare occasions in which telematics does make a difference in real political conflict are found primarily in horizontal communications--among citizens similarly aggrieved who seek to organize their displeasure--than in communications between citizens and the state or political parties.

First of all, Minitel is a marginal medium even within the media matrix. It does not engender mass defections from the dominant medium. The print regime fell because early in the history of broadcasting first radio and then television took over the function of providing a public space within which political conquest took place. The introduction of Minitel does not, however, marginalize television. Far from it. The new medium lacks the raw audience power that would require some kind of accommodation by the old to the new. Given the technical limitations of classical

videotex, it is actually remarkable that there are as many attempts as there are to solicit input by this means. Like the proverbial dancing dog, one hardly judges whether the act is done well since one is amazed to find it done at all.

In addition, the structure of the French institutional environment and political culture offer little in the way of participatory mechanisms that might be strengthened by the new medium. The hypothetical power of interactive media as a force capable of aiding decentralization and participation pales in comparison with the very real and potent power of the forces of centralization. If anything, Minitel reinforces centralization, by supporting a tightly-controlled decision-making structure and, as seen in a number of examples, making it virtually impossible to truly mount a challenge to it by means of telematics.

Telematics does make a difference on those irregular and episodic occasions when political conflict is very high. Yet, even on these occasions one is most likely to find telematic services used as a forum for free expression than as a medium for political organizing. While this does happen, it happens very infrequently.

Even with the low level of Minitel's technical sophistication and the cultural obstacles to extra-electoral participation in France, three lessons stand out as fundamental problems with using interactive media as a means by which dispersed interests may be gathered, articulated, and organized.

First, interactivity requires initiative, which selects for the most politically-engaged. A tremendous limiting factor inherent in interactivity is that it requires some activity on the part of the communicator. This is the inescapable mirror image to interactive media's positive attributes. While interactivity allows some degree of common action to be exercised it also demands the active engagement of its users. All but the motivated are excluded--by definition. In the televisual regime serendipity plays an important role in gathering political information. One doesn't generally seek

to be politically informed, but comes across this information while being entertained, which is why the :30 spot has become the ICBM of modern politics. It can penetrate the formidable perceptual barriers that keep political information out. In a medium that demands a high level of initiative on the part of the user, one does not come across information by chance.

Second, the real contribution interactive media can make is to allow people to interact without all giving their attention to the same thing at the same time, in other words to interact asynchronously. Yet, while this is the fundamental new thing made possible by interactive media, most proposals for electronic democracy are real time oriented--the creation of monster meetings of many millions. Much of what is written about the impact of interactivity images everyone together at once, recreating in physically dispersed locations the meeting that they might otherwise be attending to conduct public business. But real time applications of interactive media for political participation throw away one of its essential advantages, which is the ability for people to communicate without all giving their attention to something at the same moment. The less that electronic democracy proposals are focused upon real time applications--watching a TV show and pushing some buttons, for example--the more likely it is that what is proposed will take advantage of one of the key contributions interactivity is able to make. It can contribute to a process of consensus-building that re-directs citizen lobbying efforts from a focus upon convincing legislators to consensus-building among relevant group of citizens.

A final, even more troubling problem to interactivity and democracy is the impotence of anonymity or pseudonymity for a simulated public space. As Hannah Arendt has written, it is the visibility of the public stage that allows people to see one another as equals. Interaction online is stripped of one of its essential elements, namely the ability of the powerless to see and confront the powerful. Unfortunately

for its applicability to democratic participation, Minitel in particular and interactive media more generally are invisible media *nonpareil*. No medium yet invented offers more opportunities to hide. One cannot participate in a television show without one's physical image, nor on radio or the telephone without one's voice. Even the most private of media, the exchange of letters, requires a physical mailbox or address to which a letter must be delivered. Communicating online dispenses with even that. The physical self and representational self are severed as much as that representational self is cut off from whatever words it emits. Because the words cannot be traced to their sender nor the sender to any physical image, real identity, or genuine public space, the invisibility of interactive media make it a rather barren field for the development of electronic democracy.

With those lessons for political communication drawn from the French experience with Minitel in mind, what broader design and policy insights can be gleaned from the classical videotex platform that are useful in the conception of the digital, broadband, multimedia environment currently under construction? These fall into three categories: observations concerned with the media matrix itself, another set regarding the role of the state in managing innovation in the areas of media and technology, and finally a group concerned with the evolution of the media matrix and the future of democracy.

B. Videotex and the Emerging Media Matrix

Just as three of the most recent smash hits in consumer electronics--the VCR, the microwave oven, and the fax machine--each spent more than two decades warming up offstage before becoming overnight sensations, videotex is computer communications just clearing its throat, getting ready to sing. While videotex represents an attempt to join computing and telecommunications, it is an interactive medium that

doesn't yet integrate the dominant medium, television. Part of Minitel's marginality stems from its being screen and keyboard that are separate from a household's main screen, the television, and the primary input/navigation device, the remote control. As may be seen already in new products (such as Commodore's CD-TV or Philip's CD-i machine) the ergonomics and user interface of interactive media's next generation may be entirely different, with the viewer/user sitting ten feet away from the screen controlling it as one does a VCR or television rather than sitting at a desk in front of a keyboard, as one does with a computer.

Most of what people do most of the time with the Minitel keyboard is navigation and selection, what is termed above "level one" interactivity. Very little use of the device reaches the higher levels of interactivity. As a consequence, most keystrokes or input commands could be accomplished with a device far simpler than a full alpha-numeric keyboard, which is nonetheless essential for textual messaging and the higher levels of interactivity.

A final observation for the evolution of the media matrix is that while the usage of Minitel as a medium for sexual and pornographic talk is in part a historic accident, it is also in large measure a part of the natural order of things. In part, Minitel is exploited in France by the sex industry (as well as by amateurs, of course) because it arrived before the infrastructure for telephone-based interactive services was established. As noted above, the construction of the Minitel terminal by the French equipment industry offered France Telecom benefits that a purely service-oriented strategy (consideration solely of how to increase telephone traffic) did not. Not only was the order reversed in the US, one would also have to say that the inclusion of voice and its substantially richer range of communications stimuli (not just content but tone, inflection, volume, etc.) make it better suited for sexual communication. However, as Innis (1950) points out, historically almost every new medium is widely

considered both to debase the language by introducing a new vernacular, and thought to be heretical by providing a pathway for messages that would not pass the incumbent gatekeepers. This may be seen as well in the growth of VCR sales and the huge boom in telephone-based entertainment (900 number) services, both of which owe much to consumer demand for highly sexually-charged content.

Technically speaking, therefore, videotex is a ghetto that is well segregated from television or even from most of telephony. Interactivity is likely to be far more central in the future media matrix to the degree that it is seen as adding value and increasing control over an incoming digital bit stream, whether it takes the form of video (real time or to be stored for future consumption), sound (telephone "calls" or audio "recordings"), textual (computer "files" or "documents"), images (stills, animation), or any combination. As McLuhan has written, the content of any medium is itself another medium. While the content of videotex has been text and rudimentary images, the content of the next generation of interactive media will be far richer. It will be all other electronically-deliverable media, with what is now videotex reduced simply to the control or selectivity function. As a consequence, interactivity is likely to move from back in the chorus to a more prominent role downstage center.

C. Managing Innovation: Telematics and the State

Minitel is an oft-cited reference in the US for the presumed failures of US media and technology policies. Throughout his oversight of the consent decree that reconfigured the American telecommunications industry by breaking up AT&T, US District Court Judge Harold Greene has used the word Minitel to describe the telecommunications services of the future that we do not yet have in the United States. While there are some lessons to be drawn from the state's role in building a communications infrastructure that left the creation of services to third party developers, especially the state's role in the development of technical standards, much

of what is accepted as "known" in the US about Minitel is either wrong or vastly exaggerated.¹

First and foremost, as most of the telecommunications industry has argued for years before Greene, the strategies of industrial policy that produced Minitel do not provide a viable model for the development of interactive media in the US. This is essentially because Minitel is a creature of a telecommunications monopoly such as we no longer have in this country and of a state structure that we have never had.

The French experience with telematics is an outcome sprouting forth from the structure of the state as directly as a tree from an acorn. Only an enormously powerful organization like France Telecom could have willed mass scale telematics into being by overcoming the obstacles presented by both equipment manufacturers and the media industry. France Telecom didn't so much build a social consensus for telematics as it bulled ahead by sheer brute force, by raw financial and political muscle while using the alleged inevitability of telematics as an ideological shield.

It is crucial to recall that when the telematic program was being conceived, videotex was seen internationally as the next mass medium, what Barron's magazine was calling "the last great electronic adventure of the twentieth century" (cover story, 2 August 1982). The battles in standards bodies over protocols for videotex became a matter of national sovereignty for the French--protection of commercial interests and the French language and culture. The investment in videotex was supposed to keep out both the Americans and the Japanese and secure for France its share of the rapidly

¹ The most widespread myth about Minitel is not about how it got there, but about what people do with it: that it owes its success to pornographic services. It is true that communications-oriented services, and especially those that allow people to converse in real time, provide the largest single slice of connect hours. But as discussed above in Chapter III, far from all of these conversations are sexual in nature and it is unlikely that sex is appreciably more important for the online medium than it is for the motion picture and television production or publishing industries.

growing global telecommunications market. A critical mass of users and services was able to be achieved because the idea had a cogent, well-organized, and well-placed institutional champion--France Telecom--that had both legal and financial control over its environment.²

This experience is of limited value, for the US for example, since the American national government does not serve the same modernizing function or have the same tools of intervention. As Zysman (1977) and Stoffaës (1986) show, procurement policies are a key to French industrial policy and particularly to those areas of industrial intervention where France has shown the most success. These policies exist in the US, but have a different institutional basis and different goals. Thus, while the French Ministry of Defense may be said to have a relationship with the French armaments industry similar to that of the US Department of Defense with its suppliers, there is no US equivalent to the close coordination of the French telecommunications and electronics industries with the French postal and telecommunications ministry, what Noam (1987, pp. 30-48) has called the "postal-industrial complex." Telecommunications, along with Defense and Industry, has been among the key spending ministries in France. Only one of those three exists in the United States. With an eye on both its own needs and export markets, the telecommunications ministry has exercised virtual monopsony control over its suppliers, the most important of which are likely themselves to be public enterprises.³ This role played by the national PTTs is perhaps the key difference between communications

² Minitel was also supposed to be a product with which French telecommunications equipment manufacturers would capture foreign markets. In this it has had almost no success.

³ In 1990, France Telecom's level of investment surpassed for the first time that of the giant electrical power utility EDF (Griset (1991), p. 157).

and media-related industrial policies in the US and Europe (Nguyen and Arnold (1986), p. 157).

The state's powers are more than just financial, however. France Telecom was in essence a system integrator or value-added reseller, in which it decided by fiat many component elements that only gradually become standardized in the US as market forces slowly establish them. Thus, France Telecom's design of the customer premises equipment users would be offered includes everything from the physical interface it has with the telephone network to the presentation-level protocol used to display pictures on its screen and the navigation commands for using services. When the agreements on how revenues generated by usage of this device would be shared are added on top of these standards, one has in essence the infrastructure that the medium rests upon.

Yet, neither biology nor state structure is destiny. Too often the role of the French telecommunications administration is interpreted as being simply "the state," and the idea implied that state action therefore guaranteed success. This has certainly not been the case.

First, as Vedel and Charon (forthcoming) point out, France Telecom is an element of the French state apparatus that has essentially operated as a private monopoly⁴. France Telecom is not subsidized by the state, nor was the *programme Télétel*. In fact, the telecommunications administration has been a source of funds by which many other state goals have been met, from funding the space program to shoring up the capitalization of the leading French computer manufacturer. On the key question of whether or not the *programme Télétel* was a successful investment for France Telecom, a 1991 study by Coopers and Lybrand found it to generate an

⁴ It is now nominally private but virtually self-regulating and without domestic competition, making it at least the functional equivalent of a monopoly.

internal rate of return of 11.3% and to reach a "cumulative break-even point" (at which the cumulative total of discounted revenues is greater than the total of charges, after taking into account interest on financing) in 1998--fourteen years after it was offered to the public.⁵ Whether this is the appropriate way to evaluate the investment as a public policy is open to question. It does not, for example, address the profits made by private service providers or other benefits that are external to France Telecom such as the nation's heightened "keyboard consciousness," which may be of value in the future.

What is clear is that it is only possible in a non-competitive environment in which consumers have only one network and must use the terminal they have been provided to generate revenues for the owner of that network. In a competitive environment such as the US, the price of telephone service, for business customers in particular, has been driven to cost. Just as the structure of the American legal apparatus produces inexpensive telephony, French centralization produced Minitel.

Second, the fact that the state made this a priority did not by itself assure success. Although "state intervention has always seemed endowed with magical powers" (Stoffaès (1989), p. 113) it doesn't always work. The state has been far more active trying to build the financial foundations of the film and TV production and cable television industries, without much success in the first case and outright failure in the second.⁶ It worked with Minitel because a highly effective organization

⁵ The Coopers and Lybrand report presents only summary data that make it impossible to confirm their analysis by making an independent calculation.

⁶ Dyson (1986, p. 19) calls cable "a form of cultural Maginot line" that has protected the French from the invasion of anglophone cultural products about as well as the original protected them from the German army. While badly conceived, however, the Maginot Line was at least built, which is more than can be said about the French cable industry.

with rapidly rising prestige was committed to doing what it needed to do in order to succeed, including allowing users to re-invent the medium.

So the tools and the goals of state intervention are vastly different in the US. Not only don't agencies of the US government control telecommunications-related spending, but the American government has only limited power in the creation of technical standards. This is the one tool of industrial policy-making that could be greatly expanded in the US. Moreover, this has already begun. The US has the world's only pluralist standard-setting process, something that is likely to remain unchanged even with the renaming of the National Bureau of Standards.⁷ The US government essentially validates privately-developed standards according to the political power of the organization proposing them. But there hasn't been any consensus to validate in the case of videotex. Even Canada, the only other nation with a historically private telecommunications infrastructure, was more active in creation of videotex. As Mosco (1982, p. 84) notes, this lack of involvement of the national government is among the reasons that public-oriented uses of this medium are not discussed more frequently in the US.

This is the one tool of industrial policy-making that is crucial to media and technology policies that can still be legitimate given the very limiting constraints provided by American free market ideology. As a form of government intervention in the creation of markets, standard setting goes all the way back to Adam Smith. But never has it been more crucial than now, when capitalism's core industries are heavily dependent upon standards even before markets can be formed. Still, these standard-setting conflicts are treated as trench warfare among the pioneers of the electronic frontiers that are just too arcane and technical for there to be a public role. This will

⁷ The National Institute for Standards and Technology is primarily concerned with measurement standards, not product specifications or interfaces.

have to change, since standards today may be seen not just as the fashions of technology but as its outposts of achievement: a (temporary) new level of capability for users and sophistication of the medium without which neither technological or commercial progress are possible.⁸

D. The New Public Space: Telematic Democracy or Democratic Telemetry?

For better or for worse, and for reasons more or less unique to France, France has become what TV Guide has called "the most electronically interactive country in the world" (20 June 1992, p. 7). Even more important than how and why this is the case is the question of what the French experience with telematics teaches about democracy and participation. With media-based interactivity a crucial element of the emerging multimedia environment, what can be observed from Minitel about the relationship of interactivity to democracy?

The crucial question for new media is whether it provides ways to involve people in democratic processes. Are there ways to involve the unmotivated, to parcel out small shares of public responsibility by lowering the time-related barriers to participation and disengaging it from one's physical presence?

At bottom, it is the hope of reconstructing a new public space that underlies interest in interactive media as a tool of political communication. Since Jules Verne's very rough draft in 1879,⁹ this fantasy recurs regularly in both the US and France. It is not just the lure of more technologically advanced means of communicating but the hope that the higher levels of interactivity could be reached, that structured

⁸ See U.S. Congress, Office of Technology Assessment, Global Standards: Building Blocks for the Future, TCT-512 (Washington, DC: U.S. Government Printing Office, March 1992).

⁹ Verne is probably the first to conceive of potential public decision-making applications for the telephone and put them into fiction, in Les 500 million de la Béguine.

interaction could take place to produce not just heightened awareness but actual public decisions.

What are missed so acutely under the televisual regime are organs in which a community may gather to conduct public business when there are matters to decide of common concern. In part this is because of what Laudon (1977) calls an 'increased sense of relative alienation' caused by the massive application of technological power to the ability of the governors to speak, at the expense of the governed to reply. The former has been raised to supersonic speeds while the latter is positively archaic. But, in part, if we have no space within which to exercise our capacities as citizens, it is because those who designed our current political institutions did not provide for this. The lack of a genuine public space in which citizens may see and hear one another is a critical design flaw in our current institutional arrangement that Jefferson and Rousseau, among others, sensed the need to correct.

In the founding of both the American and the French republics, their creators failed to institutionalize participation in public life beyond the very occasional casting of a ballot. In the US it was Jefferson who realized in his later years, after he had retired from public life, that the founders had neglected to secure the future existence of the small 'elemental republics' in which people could express themselves as citizens. In part, they were silent on this participatory spirit from which their revolution was born because they were deafened by its omnipresence. The sense of engagement in public affairs was widespread enough to be, for them, invisible.

As Tocqueville was the first to observe, "Of all the ideas and sentiments which prepared the Revolution, the notion and the taste of public liberty, strictly speaking, have been the first ones to disappear." Mumford (1961, p. 328) has called the failure to institutionalize participation on a local level "one of the tragic oversights of post-revolutionary development." As Hannah Arendt (1963, p. 235-6) has pointed out,

"only Jefferson among the founders had a clear premonition of this tragedy, for his greatest fear was indeed lest 'the abstract political system of democracy lacked concrete organs.'" This is why he harbored visions of recurrent revolutions each generation and why he summarized his political theory as "divide the counties into wards." As Arendt has pointed out, it is an idea that "turned out to be as incomprehensible to posterity as it had been to his contemporaries."

What Jefferson saw most clearly after leaving the seat of power was that nothing had been done to capture and sustain the revolutionary spirit which had sprung from the opportunity of each citizen to express himself politically. Public meetings allowed a self-selected elite to constitute itself, comprised of people representing no one but themselves, whose opinions could be formed through interaction with their fellow citizens, and who would know the happiness to be derived from common purposefulness and common action.

In much the same way Rousseau and his followers feared that representation would produce specialists tempted to substitute their particular wills for the general, and be swept away by the love of power and other desires. As Masciulli (1988, p. 153) writes,

Rousseau's participatory democratic model is meant to assure that citizens attain a relatively high degree of intimacy through face-to-face communication in public assemblies and other gatherings. A sense of intimacy and trust results from the familiarity of people seeing one another often, with the consequence that citizens come to know one another and at the same time come to share a sense of compassion.

Rousseau's solution for keeping the governors under control and maintaining a sense of public spirit and compassion was periodic public assemblies. Yet, the fragmentation of the audience, the disconnection of televised images of pain from anything but a passing emotional response on the part of the viewer, and the essential blindness of

the media-based public space make "a technological reconstruction of a Rousseauian transparent assembly...highly implausible" (p. 158).

Few things may be synthetically recreated with only minor loss of their original attributes. If modern humans have, for example, invented exercise on a mass scale to compensate for the more physically active lives they once lived, the fact that this recreation bears little resemblance to its origins is of little consequence. But in the case of public life, the reconstruction of the public space by means of media-based interaction strips the interaction of some of its essential elements. Foremost among these is that in the real public space conflicts and disputes are literally brought out into the open. Even the public space as simulated under the print and broadcast regimes makes this possible. If any of the potential projected upon interactive media is to be realized, it comes in using it to recreate this public space. However, the simulated public space that one finds in the one country in which interactive media is now available on a mass scale is not one in which the give and take of public debate may take place. It is even more impoverished and abstract than the political interaction supported by more traditional media.

If the growth of media-based interactivity is to be a boon to political participation, it must be used to construct a simulated social space as close as possible to face-to-face interaction; one in which the significance of silences and evasions may be judged, and one in which the technical limitations of the medium do not deform political discourse by forcing it to fit into two or three sentence messages. If there is a nascent interactive regime struggling to be born, it must take advantage of the medium's ability to allow people to communicate in non-real time and in virtual space, both of which are habits that will be difficult to establish.

So how to use the evolution of interactive media as an engine to fuel an expansion in political participation? How to motivate the unmotivated and empower the

disempowered? Even if one cannot see this in Minitel, there are indications on how to go about it.

First, the way to motivate the unmotivated is to empower the activists to engage in this activity. The promise of a new interactive regime lies in harnessing the power of the activists to educate and motivate their fellow citizens, rather than focusing their resources upon influencing legislators. This is similar to one of the arguments made for referenda, that they call upon interest groups to organize themselves and present their proposals to the public. This would not only harness the energy that the activists are willing to invest in getting a majority to agree with them, it would also heighten the importance of the consensus-building process within organizations. The interest groups with the largest membership would be the most important to convince, particularly if those members would agree to vote as a block. The log-rolling process so familiar to legislatures could, therefore, be reproduced among citizens. In this way the intermediary groups so crucial to modern liberal democracy could have their role strengthened, rather than diminished.

Second, get the highly motivated to vote first, then give the less motivated a deadline. The technology by which people could cast a secure ballot is very unsophisticated and requires nothing more complex than a voter identification card with the same level of security as a credit card. But the effect of allowing people to vote over a period of time longer than a day could be highly significant. The level of participation achieved through a particular point in time could be announced publicly (although not, of course, the results to that point), up to a basic participatory quorum of 50%, for example. After this threshold was crossed the non-participants could be informed that a legally-binding decision was going to be made, motivating perhaps another 25% of the electorate to participate in the final four weeks, for example.

Finally, allow the technologically sophisticated to educate themselves and convince one another through advanced media, but don't disenfranchise the technophobes. Make the actual decision part a simple choice of yes, no, or go back and start all over again, even while the media available for people to inform themselves provides a wealth of opportunities with advanced media. For example, in a single community hundreds of organizations and dozens of individuals (those recognized for their expertise) could produce fancy multimedia programs (including sound, video, images, data, etc.) that undecided citizens could peruse in making up their minds. But citizens who refused to put their hands on any buttons could rely upon secondary sources to educate themselves, such as radio, television, newspapers, etc.. They could also be able to express their opinion via the traditional voting process by presenting themselves at a public facility and placing an x on a piece of paper.

So instead of envisioning electronic democracy as a matter of everyone watching a television show and responding instantly to a limited range of policy options, interactive media should be thought of as a means of creating structured interaction that runs at its own speed. In the first community to offer a digital, broadband, multimedia communications environment to all households, the city council could establish an annual agenda of the leading dozen policy questions to be decided, after which they would be taken up one at a time by citizens. Those who felt strongly could vote immediately without educating themselves further, but a wide range of media resources would be at the disposal of those who wanted to learn more. Not only could people communicate with one another and cast their ballot online, but they could do so through standard offline mechanisms. What this would promise is systemic innovation in the political communications system rather than just a show that reduces participants to the button-pushing audience of an exercise in televised political theater.

E. Twenty-First Century Democracy

Democracy is undergoing a vast spatial expansion due to the fall of communism. Yet, it is the triumph of eighteenth century democracy. It is the responsibility of the most advanced capitalist nations to push forward the boundaries of democracy--to move forward in time as well as outward in space. The evolution of the media matrix with democratic principles in mind provides a means to advance one of the fundamental intellectual threads of the Western political tradition. Technological power can be applied to the problems associated with building popular consensus in a democracy. It may be seen as a part of the creation of a positive image of the future that can act, as Polak (1986, p. IV) says, as "a regulative mechanism that alternatively opens and shuts the dampers on the mighty blast furnace of culture." Linking interactivity with democracy could be useful in what he calls the task of resuscitating "...the almost dormant awareness of the future," and providing some of the essential "...nourishment for a starving social imagination."

Appendix A

A Note on Language

Télématique is more than videotex and often in French refers broadly to telecommunications networks and services including fiber optics and cable. The use of the word telematics, however, allows the subject to be discussed in English while mutiny against the word videotex is in its final moments. The largest American videotex provider (Prodigy) goes to great lengths to avoid using the word due in large measure to the expensive failures of a much less capable computer communications service than the one it offers. The rest of the computer communications industry in the US either use the term "online" or make something up, like "electronic services." So not only does telematics as a word bring to mind the French experience with computer communications but it also has the advantage of including "videotex," "online," and other words one may use in English to describe the same things. For more on this and the richness of French for describing online behavior, see Lytel, "Translator's Introduction, in Jouët, Flichy, and Beaud (1991, pp. xvii-xviii).

Usage of the socio-economic classification schema known as the *catégorie socio-professionnelle* (CSP) is unavoidable because virtually all surveys and social statistics incorporate it. There is no direct English equivalent for the term *cadre*, which is divided by the *Institut national de la statistique et des études économiques* (INSEE) into two categories. The core of the *cadres supérieurs* is top management in both public and private organizations, but also includes professors, secondary school teachers, engineers, and those in scientific and literary professions. It is generally linked by INSEE with *professions libérales*, meaning attorneys, accountants, physicians and other highly educated professionals. *Cadres moyens* has middle management as its center but also includes primary school teachers, social and medical

workers, technicians, and members of various other intellectual professions. The French term *employé* is also somewhat ambiguous if translated as employee because it refers to low status clerical workers (secretaries and clerks) and staff. CSP focuses analysis on the nature of one's employment rather than social class, and is especially compromised as a tool of social analysis when the CSP of the head of a household is used to categorize the entire family's collective behavior. However, its ubiquity in France forces a researcher into adopting it.

Appendix B

Methodology: How To Study New Media

As discussed in Chapter II, the dominant paradigm in empirical communication research begins with a virtual assumption of sender omnipotence and evolves into one in which receivers are seen as willful and active builders of meaning from out of the huge flow of messages with which they are bombarded, with more or less independence from the institutions that control or seek to control the communications process. In that sense, interactive media, in which audience members must actively select from among the messages available to them and may respond as well as send their own, is a logical step in an already well-established direction. However, as many have noted, the tools--both theoretical and methodological--with which linear (non-interactive) media have been studied are of limited value in studying interactive media. Not only does interactivity compromise the idea of a sender-receiver distinction and the concept of an audience, but it also calls into question the definition of what constitutes a medium.

I. New Media and the Old Methods

The principle axis along which approaches to media studies may be ranged concern the characterization of the power relationship between the producers and consumers of its content. Because telematics' fundamental technical characteristic is the capacity for interactivity that it offers, most of that debate is unhelpful. The essential epistemological conflict in research upon linear media is grounded on one pole by a uses and gratifications approach, which gives relative power to the recipients of messages, who select among an endlessly flowing stream which they actively decode and integrate into their pre-established conceptual frameworks (McLeod and

Becker, 1981; Bybee, 1987; and Swanson, 1979). At the other end, the cultural studies or critical approach attributes mastery of the process to media institutions. In this view the producers and distributors of programming are the essential powers at work producing media effects. A number of theoretical shadings lie in between. (On audience research generally, see Moores, 1990; Jensen and Rosengren, 1990; Lindlof, 1991; Ang, 1989; Seiter et al, 1989; Morley, 1989; Rogge, 1989; Becker and Schoenbach, 1989; and Bahu-Leyser et al, 1990.)

Two essential elements of the telematic medium limit the usefulness of these approaches. First, telematics absolutely requires active manipulation by its audience, so the degree of emphasis placed on viewers as active producers of meaning through potentially different readings has little value. Television or radio may continue to "flow" even if they no longer capture the attention of their nominal audiences, who may be actively engaged in other activities. This is not possible with telematics, particularly in France.¹

By itself, this characteristic would not inhibit an approach based on the uses to which the medium is put and the gratifications the user thus receives for that investment of time and effort. However, in this most textual of media it is essentially impossible to identify a shared text, or a coded meaning that is delivered to recipients. Each user's experience of content is different not just because of varying interpretive needs and abilities but because the content each views is fundamentally and objectively different. No two users, even after the same length of time on the same telematic service, have seen the same thing, even if, at the extreme, they have been interacting

¹ As detailed in Chapter III, one does not log into a service with a Minitel and then leave it unattended because of the relatively high cost per minute, and because if after five minutes the network senses no activity at the keyboard the user is warned and then logged off.

with one another.² Only one content-based distinction, equivalent to the analysis of audiences by types of television programming (for soap operas, game shows, news, etc.), is developed within (in Chapter III). It concerns the classification of telematic audiences by informational versus communication-oriented content and yields a fruitful means by which the medium's audiences can be differentiated. However, this is analytically quite far from the attempt in television studies to relate audiences to the content they have experienced together, which is the essential foundation of their definition as an audience in the first place.

While the fundamentally different grammar and logic of interactive media have been widely recognized as undercutting approaches developed for the study of linear media, few new approaches that might take their place have been proposed.

Interactivity is "driving the epistemological revolution in communication science," according to Rogers (1986, p. 194). As a result, "communications effects research...guided by simple linear models...must give way to convergence models of communication as a two-way process of information exchange." This is because "interactivity means that a highly individualized message content is communicated, instead of the more standardized content of print and broadcasting communication in the past" (p. 213).

To Jassem and Desmond (1985, pp. 125-148) there are a number of assumptions underlying communication theory that are of questionable value in considering interactive media and that make reliance upon existing theory "dangerous." Among these assumptions are audience passivity or very limited capacity for processing, the

² This is the case because, unless active steps are taken to screen out all other potential interlocutors, each participant is subject to a number of side conversations any one of which has the potential to become the principle conversation. And even two people communicating directly to one another without interference experience the interweaving--the pattern of sending and receiving--of their messages differently.

one-way delivery of messages for which only delayed feedback via other media is possible, the ability of media to "wash over societies in simultaneous waves," the anonymity of receivers, the scarcity of channels, and the relatively minor role of interpersonal communication.

McQuail (1985, p. 51) concurs, seeing "much current media theory...rooted in somewhat dated concepts of the nature of mass communication." The new media

offer potential abundance...in place of scarcity, greater individual choice and thus a chance of more differentiation and certain kinds of freedom, interactive possibilities which are not currently present in most mass media, and eventually innovation in forms and applications of communication.

Should new media be widely-adopted, he writes, "society could be more free, changeable, and interactive."

Rogers and Chaffee (1983, p. 25) insist that "scholars are going to have to shift toward models that accommodate the interactivity of most of the new communication technologies," and develop "new paradigms...based on new intellectual terminology." To Ball-Rokeach and Reardon (1988, p. 157, 159) "the way we conceptualize the study of communication will have to change" because the distinction between interpersonal and mass communication "does not apply to telelogic [interactive] communications systems."

But while the point is well-made that the new media require new concepts and new research approaches, there has been so far relatively little advice on how to go about building the conceptual tools with which to study interactive media. Rogers (1986) recommends the combination of network analysis with the analysis of message content. Jassem and Desmond (1985, p. 141) call for "the specification of emerging functions" prior to an analysis of their effects. Ball-Rokeach and Reardon's (1988) description of a "telelogic" form of communication that shares some attributes of both the mass and interpersonal form is a notable exception. They suggest an exploration

of "the types of social relationships that may be created or maintained" as one of the possible approaches to the study of interactive media (p. 152).

On an even more fundamental level, the word "medium" and the study of it have come to be associated with either print (non-electronic) or broadcast (electronic) media. Print is represented as a textual non-electronic medium and contrasted with broadcasting which is electronic and either aural as in the case of radio or aural and visual in the case of television. However, both are one-to-many media, which is to say mass media. While interpersonal communications is a well-established field of research, there is almost no study of interpersonal media.

The oldest electronic mass medium is the telephone, which has not been considered a medium of communication, let alone a medium of political communication. The first journalistic accounts of the political impact of telephony date back to the 1896 Republican convention (McKinley's telephone contact with the convention hall was a distinct advantage his opponent), and in 1906 Telephony Magazine wrote "it is time for someone to write a book, or at least an article, on the telephone in politics," because of the vastly extended reach the device gave to those managing a political campaign. By 1910 a journalist wrote that the telephone was more crucial to a campaign than a good candidate. Yet, in 1983 Ithiel de Sola Pool could observe that "it is still true that no comprehensive study of the telephone in politics has been published" (both quotations from Pool (1983), p. 78).

Telephony is a mass medium in the sense of its breadth, reach and usage--more than 90% of French and American households have one--but one that is used virtually exclusively in point-to-point mode, which is to say it lacks a unified mass audience who all experience the same messages. It is a medium with which telematics shares many characteristics and from which a research approach might be borrowed, but the sociology of telephone use is a very recent and still quite underdeveloped area of

investigation. Singer (1981) calls his study "the first empirical study" of telephone usage in North America. Like Pinaud's (1985) in France, it is an attitudinal survey of how individual users see the device and how they make use of it. If there are typologies of users and functions for the US such as Lauraire (1987) for France, they remain proprietary. None of these studies of telephone usage attempt to locate this medium's application in political communication. Pool (1977) interprets the high rate of penetration of telephony in American society as de facto proof that it has had a democratizing influence. This hypothesis at least superficially supported by the observation that Nazi Germany imposed heavy taxes on telephony while making heavy investments in broadcast media (Dilts (1941), p. 19) but it is far from proven or even studied empirically.

Noting these exceptions, and a study of the relationship between social psychology and the telephone (Rutter, 1987), there is essentially no literature on telephony as a medium, hence no baseline data with which to compare a textual rather than vocal bi-directional medium and no research traditions to contend with. Interactive media breaks established categories: it is both instant and non-real time, point-to-point as well as broadcast, simultaneously textual (presumed to be an attribute of non-electronic media) and visual.

Reaching beyond the study of media to the study of technology and society yields a possible approach: models of the diffusion of innovation. The advantage of this approach to the study of media is that it shows "how the adoption of new media technologies may become inextricably caught up on social and institutional structures" (Rice (1984), p. 75). Typically, this model includes four elements: an innovation, the channels through which it is communicated, the time it takes this communication to occur, and the members of the social system who are involved. However, as Rogers (1986, p. 120-122) points out, there are factors related to new media that make

diffusion different in their case than for other technologies such as the necessity of group adoption before the technology serves a useful purpose or the problem of critical mass, the fact that these technologies are tools that may be applied by users in different ways, unlike many technologies, and the problem of differences between physical adoption of a technology and its actual integration into the user's work and recreational habits. In the case of new media, the gap between mere adoption and actual implementation may be quite broad.

Rogers goes on to show that until the 1970s the diffusion of innovations literature was focused exclusively on individuals. More recently, however, it has been applied to the adoption of technologies by organizations. This changed the methods of research from surveys to in-depth case studies and he offers a model for research conducted along these lines. However, while we may concur with Rogers that "innovation is a keenly social process, so it is important to examine the key social roles that govern the speed and adequacy of implementation," (p. 143) the model of organizational adoption does not fit the study of adoption by an entire social or political system, which is the task at hand. The interplay among the key actors does not follow the stages of initiation, decision, and implementation in a linear pattern but instead stops and starts and returns to the beginning or skips to the end in a non-random but hardly linear order. And although consumer adoption is an important force acting upon the development or nondevelopment of interactive services by politically relevant actors it is only one force, and one that appears to come relatively late in the decision-making process. The process of diffusion of innovation doesn't really allow the fundamental questions at a system level to be explored.

A second problem with models of the diffusion of innovations is the problem of what to compare the introduction of interactive media with. One could hypothetically compare the introduction of broadcast media with interactive media, but

again we have trouble locating a baseline. Research on the introduction of radio and television skipped institutional or system-level adoption and focused directly upon individual-level impact. As Kepplinger (1979, p. 175) writes,

mass communication research...skipped over the first phase of every 'normal' science, which is the description of the phenomenon, and hastily took up the search for effects.

What is available on the introduction of television are histories of the medium, such as Barnouw's history of American broadcasting, and reconstruction of audience attitudes toward the device in its formative years (Jackaway 1990). While there is no single authoritative history of French television, the diffusion of innovation model, as shown below, is an important element of the approach adopted here.

Evaluation research is also a possible approach. As Rogers (1986, p. 217-218) points out, a good deal of scholarship on the new media follows this approach. However, this approach has two major drawbacks for this study--it may not easily be conducted post hoc and is focused on the individual level of analysis. As Rogers delineates, the typical research design using this method gathers data from users by either surveys or interviews both before and after the introduction of a new technology. However, seldom do researchers begin their evaluation prior to the introduction of a new medium. Even worse from our standpoint is that this method is once again focused on the individual level of analysis. As Rogers further points out, the search for effects at the individual level is not an effective means of studying what causes change at higher levels of analysis over time, except crudely.

System-level models of political communications such as Deusch (1963) or Fagen (1966) meet this objection but produce others. Deusch attempted to build a model of society that explained communication as a feedback process that kept the political system from breaking down. Fagen even further broadened the concept of political communication so that it included the selection of leaders, the definition of

agendas, participation in decision-making, the scope of permissible criticism, and socialization. While these things are no doubt true, and communication is a factor in virtually every political variable, it is inseparable from the usage of a particular medium, although some may be more politically potent than others. This approach does, however, point to the need to explore both a society's existing media system as well as its political fissures, around which political communication takes place, as a means of locating the political functions of a new medium.

Also worth of investigation due to the research question being pursued here and the relative lack of established models and concepts to be applied is qualitative analysis, which as Lofland (1971, p. 13) calls "the task of delineating forms, kinds and types of social phenomena; of documenting in loving detail the things that exist." As Lindlof (1990, p. 24) writes,

Qualitative research seeks to preserve the form, content, and context of social phenomena and to analyze their qualities, rather than separate them from historical and institutional surroundings...its emphasis on holism, historicity, and process provide dimensions of explanation typically not available in quantitative studies.

Also known as ethnography or naturalistic inquiry, its strength is its focus upon the social practices of mediated communication. Yet, as Lindlof (p. 30) admits, it "does not normally honor the principles of replicability and universal generalizability."

II. An Integration of Research Methods

To reiterate, the goal of this research is to understand and explain how the technological capability newly-presented by mass scale telematics was or was not integrated into French political communication. This focus, in large measure, has been dictated by resource limitations which deserve a short narrative summary.

For nearly a year (Fall 1988 until Summer 1989) the sponsorship of France Telecom was sought for a broad scale survey of Minitel users that would allow the

individual level to be analyzed in detail. France Telecom does purchase ongoing surveys from a private firm, but in the end the lack of commercial applicability for the results of a poll on politics and Minitel led to the decision not to proceed.

There is still, however, a good deal of opportunistic research to be conducted with the polling data at hand. It describes demographically the base of users and their patterns of use in broad categories. But it is important to note that the polling data cited herein was not drawn from surveys of the author's design. Finding the gratifications cited by individual users therefore, and their motivations for using these telematic services was not possible.

In some ways, actual usage statistics from services offered by organizations of political import points is a more rigorous measure of the political potency of the telematic services of these organizations. Once again, however, this source of data is incomplete. Certain key organizations were willing to release usage statistics for short periods of time, notably the two largest political parties. However, no telematic service would allow either a poll of its user base to be placed on the service or the solicitation of names and addresses of users. This latter means of identifying users ran counter to one of the most important traditions of use in French telematics: anonymity. So as with polling data, the use of usage statistics is able to serve to highlight and reinforce observations drawn by other means but is not exclusively the data upon which conclusions will be based. Another important caveat to the reliability of usage statistics must be stressed: all are self-reported. They appear to an experienced observer to be roughly accurate, but there is no independent means by which they can be verified.

Another method suggested by political communication research is content analysis. However, the application of the method adopted here may more appropriately be called content description rather than analysis. The obstacle that a pure

content analysis approach runs up against is the routine and deliberate editing of messages conducted by the operators of telematic services, most importantly the politically-oriented ones. Many operators systematically remove messages that contain comments that are negative or unwelcome, leaving a sanitized environment more congenial to their partisans but of significantly less interest to a researcher. This said, however, representative Minitel screens were selected and recorded by means of a color camera so that typical services could be described and represented visually. This process was too expensive to record more than a handful of screens per service, any one of which can have more than a thousand individual screens of information. The other factor mitigating against a pure content analysis is that generally it is a method designed to identify "spin" or the bias of information, which is pointless when what are being analyzed, in the case of party or newspaper services, are inherently partisan media.

Since methods that would yield data on the mass level effect of these telematic services have not been available, the focus moved instead to the system level. The goal of determining the intentions of elite level actors in their construction and management of telematic services supplanted questions directed at the individual level. It is these intentions of the people who have created telematic services that are primarily evaluated in this study.

Several means were possible in gathering this data. A structured survey by either phone or mail was considered and discarded. Since a sampling frame could be constructed that was manageable for an individual researcher, the decision was made to organize the politically salient telematic services according to the following schema and conduct intensive semistructured interviews of those responsible for the telematic services offered by their organizations.

A means of organizing the contexts for political communication was adopted that was similar to that used by Abrahamson, Arterton and Orren (1988). Political communication may be said to take place most broadly in an electoral context (parties, campaigns, elections), in an associational context with political ramifications (interest groups and national associations) and the governmental arena (citizens interacting with state and local authorities). In each of these categories approximately several dozen services exist. Rather than selecting them randomly, purposive or judgement samples were selected for their ability to represent the category. Although this introduces an element of subjectivity, a review of the services revealed several in each category that were older, more established, more heavily used, or more innovative than the others in the category. The latter criteria, while again producing some subjectivity, was found to be especially important for identifying ways in which the distinct capabilities of telematics were put to use. Too often, "typical" services were not very creative and judged relatively low on the levels of interactivity scale developed in chapter III.

The final question was how much to structure the interview. In nonstructured interviews

respondents are encouraged to relate their experiences, to describe whatever events seem significant to them, to provide their own definitions of their situations, and to reveal their opinions and attitudes as they see fit. (Nachimas (1987), p. 238)

Several works in the literature on interviewing as a field method recommend this approach. William Foot Whyte (1984, p. 72-3), for example, writes that

In semistructured field methods, the subjects of the study can be treated as passive respondents, but the researcher who does so fails to exploit the possibilities of this methodology.

Whyte objects to the term "nondirective" for this type of interviewing because

The good research interview is structured in terms of the research problem. The interview structure is not fixed by predetermined

questions, as the questionnaire, but is designed to provide the informant with freedom to introduce materials that were not anticipated by the interviewer" (p. 97).

Thus he suggests a mix of descriptive and evaluative questions that are not indexed or coded until after at least 8-10 interviews have been conducted so that substantive theory building can follow rather than precede the field work.

Two other works on interviewing technique recommend it as a means especially well-suited for the present study. Lewis Anthony Dexter writes that standardized interviews frequently oversimplify or miss completely the most valuable part of the interviewee's discourse. The strength of the technique, he writes, is that it allows conventional classifications to be upset and the established categories of analysis transcended. Daniel Lerner's article Interviewing Frenchman suggests that the a structured format is particularly poorly suited for American researchers in France. Lerner writes that

As we moved from pretesting into the main phase of interviewing, the highly structured questionnaire with which we began became a minimally directive dialogue in the format of a free-flowing conversation.

Although this method lacks "the elegant simplicity of objective procedures," he found that it was required due to "the profound preference for the dialogue in French discourse" (Lerner (1956), p. 194).

The major drawback to intensive, semistructured elite interviewing is that in a research project with multiple interviewers it is often difficult to code and classify interview responses. However, with a research project in which all interviews are conducted by the same individual that problem is eliminated. The objectivity of the interviewer is another cause of concern, but since as Dexter (1970, p. 141) says, "cueless interviewing really does not happen," he advises only that every attempt

should be made to focus attention on what the interviewer has come to study. He settles for this as the achievement of objectivity.

Since the standards used to judge traditional methodologies such as experiments and surveys are inapplicable to the evaluation of the quality of these other procedures, Meyer et al (1980) recommend that the researcher's biases and perspectives be articulated so that an evaluation of the validity and reliability of his or her data may be more easily made by later readers of the research.

III. Conclusion

This integration of multiple methods fits well with the matter being studied. Called by Denizen (1978) "multimethod triangulation," it brings together a number of data sources, methods of analysis, and theoretical underpinnings as the most efficient means of studying complex processes. While the diffusion of innovations is limited in its focus on the individual level of analysis and its demand for pretesting, neither of which are possible in this case, it does lend a model by which the adoption of this new medium may be considered. It suggests a before/after framework, which will be adopted by first looking at French political communication apart from Minitel and then bringing the usage of the new medium into the picture. Likewise, the many ways of studying the communications process--political or otherwise--are limited in their ability to provide a foundation for the study of a medium that has few of the characteristics of the unidirectional and simultaneous mass media that have been the basis for past studies of media and political communication. Survey data and usage statistics can be used to reinforce other means of data collection, but the inability of the researcher to control the questions used in the surveys conducted of Minitel users and the inherent unreliability of self-reported usage statistics that are released by

people and organizations with both commercial and political reasons to exaggerate suggests the incorporation of other methods as well.

The primary means of data collection herein, semistructured interviewing, gives the greatest latitude for the developers of telematic services to "teach" the interviewer the purposes for which their services were constructed, and the criteria upon which their success or failure was to be judged. The interviews themselves sought both descriptive and evaluative responses from interviewees, such as the histories and current usage patterns of the services created and offered to Minitel users, as well as whether or not the goals that were held when the services were created have been met.

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