DOCUMENT RESUME

ED 194 077 IR 008 939

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TITLE Impact of Modern Communication Technology. I. Australia.
INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Paris (France).
PUB DATE [80]
NOTE 128p.: New Communication Order 1.

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Communications: Communications Satellites: Cultural Context: Cultural Influences: Developing Nations: Ethnic Groups: Foreign Countries: *Mass Media: Models: National Programs: Radio: *Technical Assistance: Telecommunications: Video Equipment
IDENTIFIERS *Australia: Indonesia

ABSTRACT

This UNESCO analysis of the development of national communication systems focused on the introduction and impact of mass media technology in Indonesia--a largely traditional society--and Australia--an industrialized society. Both countries are using largely imported modern communication media. The studies analyze the role of mass media in cultural life, social integration, and national development. While the context, approach, and methodology of the two studies are quite different, the initial questions had much in common: What are the effects of transfer of technology? and What is the impact as well as the content of the media? The Australian study found that modernization is not necessarily a beneficial process. This is also confirmed by the Indonesian study, which laid more emphasis on the relationship between communication, social change, and development. Both studies indicate that, if modern communication technology is to be useful and efficient, its content and message need to be adjusted to the capabilities of reception, understanding, and possible use made by the population. (Author/MER)

IMPACT OF MODERN COMMUNICATION TECHNOLOGY

I. Australia

By CHRIS DUKE

Foreword

The main purpose of this Unesco project was to analyse the development of national communication systems, in particular the introduction of modern mass media, and the impact of this technology on "traditional" as well as "industrialised" societies.

The approach followed was to undertake two case studies, one in Indonesia, representing a largely "traditional society" and one in Australia representing an "industrialised society", both of which are using intensively modern communication media, which are to a great extent imported.

Besides describing how the economic, cultural and social structure of these societies is affected by modern communication technologies the studies try to analyse the role the mass media play in cultural life, in social integration and national development.

Communication technology is seen to have a direct impact on economic development and political organization and not merely on lifestyles and culture. Technology is not a "neutral element" which can be divorced from social, cultural and political considerations. The choices of appropriate technology and its adaptation to the needs of the country are felt to be of political, economic and cultural significance for an industrialized country like Australia as well as for Indonesia, even if the government lays emphasis on cultural identity and national integration.

While the context, approach and methodology of the Australian and Indonesian studies are quite different, the initial questions they had to answer had much in common: (a) the effects of transfer of technology; (b) the impact of the media as well as their content.

The authors of the study on Australia acknowledge that the introduction of modern communication technology has also to be linked to the "identity crises" of the present world and not only to a country like

Australia, and to the reassertion of their own "cultural identity".

Transfer of technology it seems can also be a vehicle for the transfer of ideology. Therefore the recent interest of Australia in appropriate communication technology in order to produce adequate endogenous messages so as to redress imbalances in flow of information and cultural materials.

One of the most important findins of the Australian study is therefre the experience that technological progress, understood as modernization particularly in the communication field, is not per se and necessarily a beneficial process. This is also confirmed by the results of the Indonesian study which laid more emphasis on the relationship between communication, social change and development.

The Indonesian study has also concentrated more on the socio-cultural impact of the domestic satellite communication project in two cities and five provinces. It was found that different economic and socio-cultural backgrounds strongly influence acceptance and use of the information provided by modern communication media. Mass media distribution and ownership is a prime factor conditioning the effectiveness of modern communication systems in traditional societies. The role of the opinion leaders is closely interrelated with the role of the mass media. Though, in general, the role of mass media as initial sources of information is seen as still relatively small, the local opinion leaders are intensively and regularly using the media. They can even be characterized by their knowledge of cultural and religious matters, and also because of their innovative and progressive attitudes and practices which seem to mainly stem from the mass media.

The study also shows that there is a "two-step-flow of information". The information which is being transmitted by the mass media to the rural populations and mainly passed on and interpreted by the opinion leaders, motivates the villagers to know more, to study and adopt first technical and later cultural innovations and to participate more actively in the life of the nation.

Both studies indicate that if modern communication technology is

to be useful and efficient, its content and message need to be adjusted to the capabilities of reception, understanding, and possible use made by the population. One of the conclusions of the studies is that further research is needed to identify the specific role of mass media in the development process, to determine the impact of the media on the level of the local "consumption customs" and to design communication policies and strategies which are appropriate to the different socio-economic and cultural patterns of not only "traditional" but also of "industrialised societies".

This study is not an official document of the country it refers to. The views stated therein are the author's and do not necessarily represent the official views of Australia or those of Unesco.

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CONTENTS

I Introduction

This is an interpretative essay about the relationship between communication technology and Australian society - a society chosen as being 'modern' in contrast to neighbouring 'traditional' Indonesia. The appropriateness and the connotations of these terms are among the various themes in what follows.

There is also a theme about methodology: method in social science generally and in future-oriented studies and communication more specifically. A standard Australian sociology text published as recently as 1965 (our 1968 edition was the fourth printing) called sociology the Cinderella of Australian universities - and defined it as an "academic discipline seeking to illuminate the results of social surveys", Cinderella-like definition of role indeed (Davies & Encel, 1965). A more recent Australian analysis of critical theory and critical research on mass media and society refers to the problem of overcoming 'methodological inhibition': how can one transcend the limitations of existing theory "but with a theory and method which does justice to the complex and dynamic empirical reality which it seeks to explain" (Sinclair, 1974). Sinclair finds media research to date to display 'methodological inhibition' and abstract empiricism: "uncritical and simplistic assumptions inform short-sighted projects". He advocates critical theory, the distinguishing features of which he considers to be transcendence and dynamism. Whereas much controversy in mass media studies conceals conflicting ideological stances, critical theory is explicitly an ideology in that it is radical and action-oriented: "the consciousness of a practice that aims at changing the world", to quote Marcuse.

On the whole our approach in this essay accords with that advocated by Sinclair whose paper appears in the more critical sociological reader edited by Edgar in 1974, the different flavour of which provides one measure of the movement in Australian sociology over these few years. At the same time we are mindful of Davies and Encel's observation in introducing the earlier reader: "the typical art form of the writer of Australian social affairs is the one-volume study which aspires to sum up

a complex community in an array of subjective assessments..."

In chapter two we mention problems of causality and interpretation in social science. The nature and direction of change is problematic at the best of times. In a consideration of the relationship between communication and society it is formidable: "no one really knows all the functions of the mass media, for in their entirety these functions are probably so pervasive and so subtle that they cannot be caught by the means of social research now available" (Wrights Mills, quoted by Sinclair, 1974). We maintain that the future is in some measure already contained in the present (Emery, 1974), and that emergent trends may be discerned with change prophesy to prediction. At the same time we acknowledge that predictions generated from an analysis of values and the leading part do not always prove to have been accurate forecasting. We also hold that identification and amplification of desirable trends in a purposeful way may partly create the future - a version of the self-fulfilling prophesy.

The meaning and scope of 'modern communication technology' requires some attention. It is frequently equated in casual conversation with the mass meida, sometimes indeed nowadays with the electronic media almost to the exclusion of print. "Many scholars today include, in their use of the phrase 'communication technology', more than mere machines or equipment or techniques. In their thinking the phrase would include communication infra-structures, production of programme materials, training and education programmes - in other words the total technological environment within which the communication system operates, the ways in which technological means, methods and knowledge are organized, institutionalized and developed, the processes by which technology is applied and made available..." (Unesco, 1978b). The narrower alternative is the 'hardware' of modern communications. Communication may also embrace face-to-face and one-to-one exchange as well as the mass media; and the latter may yet be technologically based, as with CB radio. The difficulty in using the term is illustrated by another extract from the paper just cited: "one of the main functions of communication is to stimulate attitudes conducive to innovation in science and technology and thereby improve productivity" (Unesco, 1978b). This may be akin to boiling the kettle

when we refer rather to the water: it is the information, the content, rather than the process of communication which is intended here? We are concerned in this essay with both content and process in terms of the effects of new communications technology and not, in a direct way, with face-to-face communication or those forms of communications and communications technology concerned with moving goods or persons rather than messages which are normally encompassed by the term transport.

"Failure to assert the primacy of policy over technology is an alarming and increasingly dangerous phenomenon of the modern world. This danger is also present in the area of communication". (U.N. Secretary-General, 1972, quoted in Unesco, 1978b). We have referred to purposefulness and the 'consciousness of a practice that aims at changing the world', thereby rejecting technological determinism both on principle and as interpretation. When Prime Minister Whitlam introduced community radio to Australia there was nothing in the technology which had not existed for fifty years. What may be less easy to tell is whether this was an act of political will calculated to generate a different climate or whether the decision itself reflected a change in community style. Enzensberger, in the course of identifying constitutents of a theory of the media, incidentally provides several instances of the irrelevance of technology per se to the social role and significance of the media, even while identifying emergent forces and possibilities in the electronic media which have great potential for social change - "the open secret of the electronic media, the decisive political factor, which has been waiting, suppressed or crippled, for its moment to come, is their mobilizing power". In other places he observes that "every transistor radio is, by the nature of its construction, at the same time a potential transmitter; it can interact with other receivers by circuit reversal. The development from a mere distribution medium to a communications medium is technically not a problem. It is consciously prevented for understandable political reasons". "In the face of technical developments, which long ago made local and international radio-telephony possible... the prevailing laws for control of the air are anachronistic". "Even so potent a means of production as the short-wave transmitter has been tamed... and reduced to a harmless and inconsequential hobby in the hands of scattered radio hams". On the other hand

events like the Woodstock Festival offering groups as identification models "develop a mobilizing power which the political Left can only envy", without any great reliance on new technology, even though sophisticated amplification plays a part. In the Cultural Revolution in China "wall newspapers functioned like an electronic mass medium - at least in the big towns", and the Soviet invasion of Czechoslovakia saw "spontaneous productivity on the part of the masses, which ignored the institutional barriers of the media" (Enzensberger, 1970).

What these apparently random examples have in common is that they illustrate that technology is often of minimal relevance to socially or politically significant communication. Some technologies have proved insignificant because of political decision, legislative control or community apathy despite their radical potential; while dramatic and significant communications occur, when socio-political circumstances are favourable, with very simple technology. We may recognize the complexities is history and causality. Further, as is suggested in the first chapter, different disciplines may each impose their own 'truth' through interpretation of events. Each may be right, 'wrongness' resting only with the attempt to assert the exclusiveness of one truth over others. Any study of a complex phenomenon like communication technology and society, especially a comparative study such as this purports to be, referring also to traditional societies, must seek to take all factors and dimensions into account.

Our point about determinism and methodology is reinforced by the recognition that there is no single technology - that technology grows up in different social contexts and according to different social needs and choices (Reddy, 1978). Asian societies, and possibly governments, are coming to recognize the possibility of choosing a particular level of technology. State-of-the-art technology may not be optimal on socio-economic and cultural grounds. This recognition appears to be dawing also in Australia.

One interesting comparative aspect is the possibility of choice of communication technology by a society, whether through its government or

by some other means. Another is the criteria or content of such a choice. Variety, or diversity, has emerged as a salient value among influential groups in Australian society with legislative and other practical consequences for ethnic minorities, some of which are touched on below. Variety-enhancement may be a key value for media reformers and activists in Australia.

In societies where national unity is a dominant consideration a decrease of variety may be more attractive. In such circumstances variety and diversity may mean continuing weakness and dependency on the technologically advanced. We should take care not to assume that what is desirable - 'active-adaptive' - for one country is necessarily desirable for another country. In this connection we note the need for an Asian or non-Western social science which does not suffer from unwitting ethnocentrism (see chapter 2, also the stance of the Western press over the Unesco draft declaration on communication from 1976 to 1978).

Lest this appears prematurely to adopt an intransigent position let us add, on the one hand, that senior communication colleagues in Indonesia espouse somewhat similar values to diversity and decentralisation as are favoured by Australian innovators. There may be some convergence in the evolution of both societies on this dimension, despite the importance to Indonesia, and politico-economically similar societies, of national integration. On the other hand, we need to ask whether and in what sense Australia is itself a 'modern' society, something to which we turn to in chapter 3. Nor should we make the mistake of assuming unity of interest and interpretation among classes and interest groups within either country.

I I

Communications and society - methods and models

In the thought and work generated by this study we have moved from a stance of relative confidence and clarity to one approaching scepticism and indeed nihilism. This refers to the role and methods of social science in approaching the relationship between communications, including communication technology, culture and society, including social change. We approached the study with a methodology for future forecasting and social change drawn from one tradition of systems thinking which emphasises purposefulness and choice in human behaviour and human affairs (Emery, 1974, 1977). We remain in accord with the underlying rationale and the anti-deterministic value stance of this approach, which avoids psychological behaviourism no less than technological determinism. We have, however, found too much blurring of description, prescription and prediction to satisfy us completely in the application of this methodology, and examples of recent predictions which have proved incorrect. Optimism, desirable values and wishful thinking may, at times, interfere with accurate perception.

If our own chosen methodology and tradition is at times deficient in observation and methodological rigour and hence predictive strength, we are the more disappointed by much research in the communication field. We tend to share the opinions of some Australian scholars in this field cited in chapter 4 below. The criticism is wider and deeper than any comment on communication studies themselves, for it relates more to the development and application of 'Western' social science to communications, and especially to Third World and comparative studies with which this essay is at least indirectly concerned. We heed Inayatullah's warning (Schramm & Lerner, 1976, 246) against positing an Asian model of development, Asia being more a geographical than a cultural category, but we do consider that there has tended to be a Western model of development, and a social science which has promoted this. We incline towards the view that there is need for an Asian, or non-Western, social science, or for a plurality of non-Western approaches to the interpretation of social structure, process and change, including the role of communications in social change and 'development'. At present, while

much social science in Australia and similar societies has taken refuge from the broader and more difficult questions, including philosophical and ethical concerns, in that form of reductionism and quantification of the less significant, sometimes called 'number-crunching', communication studies in Asia, partly no doubt because confronted with unconvincing theories imposed from different settings, tend to fall back on recitations of content and other factual data accounts rather than exploring the more complex issues and relationships.

We turn shortly to review old and new paradigms relating to communications and development - mentioning first that Australia is itself in many respects a developing country, for all its affluence. For the moment we assert that much of the earlier development literature in this field is (albeit innocently) ethnocentric, not excluding what still reads as too complacent a restatement of a new position ten years later by Daniel Lerner (Lerner, 1976). There has been a shift to a new paradigm - or perhaps simply a move away from the old to a diversity of paradigms or, possibly, even to an abandoment of the paradigmatic approach which tends to become a constraint and a trap (Schramm and Lerner, 1976). But the very attempt to measure the thousand flowers which bloom under the new order is a constraint and distortion. This occurs because using tools of (Western) social sciences imposes a logic from one or more of its substructures which are inappropriate when used outside the societies from which they originated. We doubt the very concept of objectivity, acknowledging the overweening influence of the position from which the scientist does his observing in determining what is perceived.

By sub-substructure is meant the perspective and limitations induced, for instance, by the discipline of psychology to the exclusion of other also valid and non-comprehensive disciplinary perceptions and perspectives. Few inter-disciplinary studies have proved successful; where they are, they tend to be the achievement of a brillian individual transcending disciplinary constraints rather than the work of a team. In the words of Laing and Cooper, inter-disciplinary projects often fall down precisely over the rule of denying the existence of the rule governing perception and behaviour. We may take diffusion theory, an important strand in

studies of communication and society, to illustrate. Psychologists from the forties in the United States studied patterns of adoption of innovation among farming groups; their resultant framework remains largely intact. Measurement suggested an asymptotic curve for adoption. Interest focused less on the larger phenomena which shaped this curve than on the individual behaviours which it represented. Those at the beginning of the curve were called the early adopters, and psychometric studies ascribed various positive qualities to such persons. The late adopters fared less well in terms of the way their attitudes and qualities were characterised. Factors such as lack of capital, or the perceived utility of the innovation, were omitted from consideration, and casuality was ascribed to the psychological variables. Along with the causality went, at least implicitly, credit and blame. Thus internal psychological characteristics such as openness or closedness acquired positive or negative attributes; social behaviour was explained by such traits in a context where adoption of innovation was an assumed good.

This leads us to the nihilistic position of doubting the validity of comparative studies where external methodologies are introduced for the study of societies. Parallel with the quest for appropriate and autochthonous technologies is a preference for endogenous methodologies. The unacceptability of this to the rational, apparently open and democratic West will be obvious. Indeed, it would remove much of the ground for Western involvement in Third World studies. Western preoccupation with economic, consuming man, as seen by Asian observers, is part of the problem. The problem is otherwise suggested by the reported Chinese observation on Western science to the effect that a scientist observing a cat through a picket gate would see first the whiskers, then the head, the body and the tail, and would deduce that the whiskers had caused the tail.

Lerner (1976) defends comparison and scientific method in seeking a path towards the (although also at other points 'a') new paradigm. He asks how social science works and what is its proper work, looking to continuities and regularities for a resolution. It is not explicit whether regularities also imply causality. Lerner quotes 'scientific and

sage' words from Schramm which counsel caution over monolithic theorising and respect for scientific pluralism; our doubt is whether scientific pluralism is itself sufficiently comprehensive of other modes of understanding than the Western causal-rational-scientific. Lerner fears that Eisenstadt's 'culture-specific' findings "may be approached in ways that divert social science from its proper work" (Lerner, 1976, 61). Culture-specificity is seen as diverting "the quest for a new paradigm onto an abandoned sidetrack". We would question, rather, commitment to a paradigm. Lerner continues to take exception to the phrase "cultural imperialism" as applied to development aid and rejects what he calls the spurious dichotomy between spiritual East and material West. We again go further, acknowledging the dichotomy to be over-simple, but not rejecting the differences of value, perception and consequently experienced reality to which it refers. Lerner cites an Asian commentator on Inayatullah (who called for a non-Western model of development) on the hatred for Western domination and the struggle for independence, accompanied by a revival of native traditions, whether historical or mythical, as part of this anti-Westernism. We are less confident than Lerner that ten years later there is a new paradigm, such that "strident emphasis on our 'culture-specific' differences" has given way to "acceptance of 'regularities' in the human condition" (Lerner, 1976, 63).

Concerns expressed about foreign ownership or control, and content, of satellites in the Third World, and the controversy over the draft Unesco declaration at the 19th and 20th sessions of the General Conference are grounds for hesitancy over Lerner's proposition within the communications area. The pressures for alternative and diverse roads to development - or rather for the future, because the concept of development has come under criticism with the failure of the Second Development Decade significantly to ameliorate the lot of the 'poorest of the poor' in most countries - are increasing. To abscribe anti-Westernism or anti-development (Western style) to residual hatreds of the struggle for independence is too simple; like the sub-structure of disciplines, it is a truth which may hide more than it reveals. Majid Rahnema, writing as the national of a country which has not been under foreign colonial rule, attacks the dominant development concept that all countries had to follow the West's

development route through international co-operation: "for more than thirty years, people everywhere were subjected to unprecedented brain-washing. Deploying their computers and their statistics, not to mention the authority deriving from their office, the development experts conjured up the most awe-inspiring theories destined to bring about the 'take-off' leading to modernisation". He refers to making up lee-way, prefabricated kits offering a short-cut to development, including teams of specialized technicians. Rahnema describes the ideal design thus created for world living as a "monocentric and misleading concept of development" which "did immeasurable harm to the countries of the Third World" before those affected were forced to extract themselves from this paternalistic concept. "Any uni-directional approach which leaves out of account the plurality, the immense variety of human cultures cannot but hinder those paths which are essentially individual and keyed to their future".

Kato writes somewhat pessimistically about the impact of 'global instantaneousness and instant globalism' on popular culture, though seeing possibilities for positive effects on local culture if countries can afford the production, in particular, of their own television programmes presenting and using traditional forms of communication. Often, however, the modern medium itself alters, and possibly destroys, traditional communication. Illich, speaking recently in Australia, described how the dozen or so bands in the Mexican village dear to him disappeared within a year of the introduction of juke boxes, and how students now come in to teach the villages their own songs and stories. Kato remarks that Thai viewers could name Japanese but not national figures; it has been observed that television, and before that the cinema, has made the names of American Indian tribes familiar to Australians who cannot name one Aboriginal tribe of their own country. Kato also notes the disappearance of travelling story-tellers and singers in some countries in the face of broadcasting, and the fact that consumerism fostered through television viewing does not by any means automatically lead to an increased national capacity to produce such goods, since importation from more industrialised countries is easier. The introduction of modern communication technology then becomes the precursor to opening

up new industrial markets for the less impoverished sectors of development countries. On the other side Floyd Matson, commenting on this paper and using the phrase 'identity crisis' for developing nations invaded by technological media (yet disowning this - "no doubt it would be excessive to speak of...") finds possible a "restoration of the 'balance of imports' on the cultural level", with developing 'consciousness' respecting "traditional customs, art forms, and other collective representations" (Schramm & Lerner, 1976, 259-60). We do not find 'identity crisis' too strong a term for Australia, as the next chapter suggests, but we do see a possibility that the reassertion of cultural consciousness and affirmation of traditional values may be a 'leading edge' in many countries of Asia. There may indeed be convergence in this sense rather than towards any one economic production model: there is an analogous renaissance of traditional - pre-industrial - forms of art and production in Australia which has reached the point of economic self-sustenance for many small groups in this and, presumably, similar countries. There is considerable ambivalence among modern communications and media scholars and advocates about traditional forms of communication, and a hesitancy to come to grips with the impact of television on such traditional forms. This may betray hesitancy over research methodology as well as ambivalence of attitude and values.

It is unnecessary to spell out very fully what Rogers and Eisenstadt respectively describe in Schramm and Lerner (1976) as the passing of the dominant paradigm and the changing vision of modernization and development. Rogers distils four main elements in the concept of development: economic growth through industrialisation and urbanisation measured as GNP or per capita income; capital-intensive technology; centralized planning; and the causes of underdevelopment identified as being within the developing country rather than outside. He notes the shift from this to a new paradigm or paradigms, with the main target the villagers of the 'Fourth World' or least developed countries (LDCs) - 'the poorest of the poor'. Eisenstadt outlines the conceptual stages of modernisation, given the two dichotomous types that had been employed (traditional and modern), noting the assumption that there was only one viable way of coping and that diversity would progressively disappear. His ob-

servation that "the less 'traditional' society is, the more capable it is of sustained growth" has proved fallacious is sharpened by the hesitant growth, or end of growth, which characterises the West in current economic circumstances. He goes on to challenge the concept of dichotomy and to refer to a plurality of models and a broader view of modernization. Schramm himself also comments on the inadequacy or failure of the 'trickle-down theory' of development, remarking that important though top-down communication may be, bottom-up communication is still more important, also that the main effects of television are very often indirect and unplanned (Schramm, 1977).

Literacy provides another arena of communication where there has been doubt and reconsiderations of late, with more questions than answers, although Rafe-uz-Zaman concludes that the potentialities of bypassing literacy are limited (Rafe-uz-Zaman, 1978, 75). Rahnema (1977) notes of the "catching-up" model of the UN First Development Decade that "it was solemnly proclaimed that illiteracy in such-and-such a country or region should be eradicated within a specific number of years, that universal primary education should be achieved by a certain date and universal secondary education by another , that at a given point a particular continent should have so many radios and newspapers per hundred people". Maddison's 1971 Unesco study, Radio and television in literacy displays unquestioning faith in the utility and desirability of the mass media. Technology is an undoubted gain - the more and faster the better: "all the various ways of using radio and television should be fully exploited in all countries with a sizeable problem of illiteracy; this should be done as part of an overall plan to develop the new techniques of communication for economic and social, and especially educational, advancement". "In sober truth, the audio-visual media would seem to be capable of virtually wiping out the scourge of illiteracy by the end of the Second Development Decade" (Maddison, 1971, 36, 38). Sadly, we find Maddison's figure of 800 million illiterates still describing the illiteracy problem. In highly industrialised Western societies we now witness concern and allocation of effort related to the high rate of (functional) illiteracy - in Great Britain, Canada, Australia - and some suggestion that illiteracy correlates positively with the high in-

cidence of television viewing.

A more recent Unesco document offers a more sophisticated interpretation: "the general character of mass communication as public communication, which supposedly goes beyond particular interests with its 'universality', conceals the ideologic legitimization function of the mass media. The concealmente is greater in those definitions of mass communication which operationalize the 'public' nature of the functioning or 'publicity' of the mass media as their being accessible to everyone (and anyone). Precisely because of this formally 'quite technical' character the mass media appear to be particularly appropriate for achieving social integration of all classes and layers which is, of course, only seemingly so; in reality, this makes them particularly appropriate for the transfer of ideology and for the stabilization of ideologic norms, values and meanings" (Martelanc, 1977, 47).

Transfer of technology is a vehicle for transfer of ideology. The recent interest in appropriate and endogenous forms of technology generally in Asian countries clearly concerns us in any consideration of modern technology. Adoption of satellite communication is accompanied by fear that an open skies situation, perhaps overriding national policy, will create further cultural imperialism. Rahnema, at a recent Third World symposium (on participatory research in Costa Rica in July 1978) spoke of a shift in emphasis from change towards preservation of what we have, are or wish to become; 'change' is seen as another's imposition. He suggested the prospect of pride and pleasure in traditions and values, in what we are, poverty as the 'basis of new operational dynamics' rather than change induced by the 'North' out of shame of poverty. The new Indian Government proclaimed a shift towards chosen, often lower level and more labour-intensive forms of technology and production, in a statement in Parliament by Minister George Fernandes in December 1977 (Fernandes, 1978). The statement made mention of removing the distortions of the past and changing the minor role of cottage and small industries, with "man at the centre of planning". Appropriate technology would become an integral part of policy and future industrial development would be

based on indigenous technology as far as possible; where complete technological self-reliance was not possible "the government's preference would be for outright purchase of the best available technology and then adapting such technology to the country's needs".

Another Indian paper in the same journal proposes "an alternative pattern of Indian industrialisation" (Reddy, 1978), starting with the underlying assumption that "the pattern of technology of industry is shaped by, and in turn shapes, the society in which this pattern is generated and sustained. More specifically, technology and industry respond to social wants, which are in turn modified and transformed by them, through a causal chain, or rather causal spiral". Reddy points out that social wants are filtered so that only some become demands upon technological capability; this filtering, by educational, scientific and technological institutions, meas that there are wants which are ignored: "this filtering process is usually operated by decision-makers, firstly in the bodies which control research and development institutions... and secondly in the institutions themselves. These decision-makers are either conscious agents of political, social and economic forces or are unconsciously influenced by these very forces". Technology is the "product of its times and context and bears the stamp of its origins and nurture. It is in this sense that technology can be said to resemble genetic material, carrying the code of the society which conceived and nurtured it and, given a favourable milieu, trying to replicate that society. To the extent that the replication is not automatic and inevitable, the argument is not one of technological determinism; and to the extent that technology itself is socially conditioned it is not being viewed as a motive force outside the society".

Reddy observes that the Western pattern of technology and industry "has only accentuated the evils of the dual society. The elite... is the principal beneficiary... In short, the pursuit of the Western pattern has created and bolstered metropolitan islands of Western-oriented affluence among vast oceans of rural poverty, but the islands can survive only if they do not expand significantly". The social dimension of development requires the exercise of preferences for technologies promoting

endogenous self-reliance, and the economic dimension the exercise of preference for need-based, not demand-oriented, technologies. Reddy also asks about the impact on the cultural fabric of society, for instance, on endogenous technical traditions. Are these built upon, or eroded and lost? - does the technology blend and enhance, or disrupt and destroy? (Reddy, 1978).

These two Indian statements suggest the possibility of purposeful choice, which requires the recognition that technological choices will inevitably influence social outcomes as well as, obviously, that there is not one (usually state-of-the-art) technology but a range of possible technologies from which a choice can be made. Our doubts about the validity of Western social science, including our own approaches, in this field do not prevent optimism in the sense of a belief in the possibility of choice, nor for that matter that it is possible in some measure to make the future by purposeful planning and choice. Four components (at least) interact to produce a communication system: technology; economic factors of various kinds; policy and legislation; and what might be called style, culture or probability of choice arising from familiarity. Though these four elements merge and interact, merely to recognise them is to suggest the falsity of technological determinism; that this is a fallacy is one conclusion brought home to us time and again during this study.

Linked to this, and clearly implied in Reddy's paper, is the role of government in exercising choice and control. This brings us to crucial and difficult questions of power and change. Politics and power intervene between 'communications technology' and 'society and culture' as we try to disentangle directions of causation and cause from effect. One helpful way of looking at communications is in terms of the symmetry or asymmetry of power between the person(s) giving and those receiving the message. Is there the capacity for two-way transmission, or is one party only a receiver of messages? Who determines the volume and content of messages transmitted? Can the recipient(s) switch off the flow of messages - literally or psychologically? Can they give feedback and modify the communications? Invited or uninvited, and so on.

The same questions about power and communications must be asked at

the societal level if we are serious in exploring the social consequences of communications. There is a plausible thesis that technology is developed according to the socio-political context and not in relation to technological absolutes, and the technology developed is that which serves the interests of dominant power groups in society. Is the shape of the new culture in modern societies being determined mainly now by those who control television? As we observe in later sections, it is extraordinarily hard to say that communications or the mass media 'cause' a particular; the media are part of the causal texture of the environment, the nature of which may be undergoing radical changes for a complex of reasons, including among them, for instance, satellite communications and the overlap and drawing together of computer and telecommunication technologies. One reason why it may be difficult to find direct causal relationships between mass communication and (significant, structural) social change could be that the media are in the control of elites and the government whose interests are opposed to radical social change. It may further be hypothesised that the process of leap-frogging, whereby Third World countries come to acquire state-of-the-art technology, accentuates the tendency for communications to become the servant of elites. There is a paradoxical situation here: planned social change in Third World countries is seen as a responsibility of government, yet the influence or control of governments by elites and interest groups makes structural change in the society improbable. Thus the more powerful and sophisticated the communication system, the more it may be a force for conservatism, for validating and reaffirming the status quo. We take this argument further in discussing hegemony in chapter 4. Communications may foster structural change only in those few societies where government for one reason or another appears really to be committed to such change; where this happens high technology appears to be largely irrelevan (see also Enzensberger, 1970). Godwin Chu demonstrates this in his account of group communications and development in China, sub-titled "the functions of social pressure": "more important than the mass media was the network of interpersonal communication... the communication network in the village's new group structure both made it easier for the cadres to apply pressure on the peasants and, at the same time, gave the peasants some sense of participation so that the constraints of collectivisation

seemed somewhat muffled: (Chu, 1976, 125). Here the old groups, with kinship and landlordism interwoven, were deliberately broken up by mobilising peasant political consciousness. One salient feature of this situation was comprehensiveness - "an individual belongs to essentially one formal group". Pressure was sustained by interpersonal surveillance with 90 % of all households exposed to "a loudspeaker that is regularly emitting hortatory propaganda..." Chu describes the range of media employed, including television, big-character posters, and Peking opera troupes on tour; "with the Peking regime, politics is in command" (Chu, 1976, 137). Lest these extracts appear selectively critical, let us add that "every Chinese belongs to something, and it meets frequently. He goes to meetings and learns to participate". We may compare this with the negative scenario sketched about high-technology post-industrial Western urban society by Pawley in The Private Future (Pawley, 1973).

Mobilisation of the media and of communications technology to foster major social change thus is likely to be unusual. Unless certain political conditions hold - conditions unattractive to many in the West - the likelihood may be that technological advances will reinforce the status quo, albeit while inducing unintended changes in the fabric and culture of society, mainly it seems in the direction of homogeneity. The Australian case study, and specific case studies within this, explore this proposition, specifically dismissing technological inevitability but not so clearly disproving the quasi-social determinism born of laissez-faire, such as is indicated above. Some sociological explanations for this are cited towards the end of chapter 4. We will be looking in particular to test our interest in choice and causality for examples where Australia, or Australians, have chosen a lower, or less than state-of-the-art, form of technology, and for other than strict reasons of efficiency or economy.

We conclude this discussion of method and approach by reiterating some scepticism about social science. Inayatullah, while modifying the detail of what he stated earlier, sustained recently that Western social scientists tend to adjust their perspectives to the political context

of technical assistance programmes they are involved in, that they prescribe solutions compatible with their own countries' global interests, and that they "reflect ethnocentrism about the superiority of their culture and institutions". He finds the intellectual perspective of Western scholars to be "conditioned by a narrow and shaky unilinear view of the history of man", and maintains that non-Western societies should consciously choose and invent their own models of development (Inayatullah, 1976, 58). Our scepticism about social science is not restricted to Western studies of development strategies or to studies of the role of communication and the mass media within this. There is something of a turmoil in Western social science about these and other matters, and we find Feyerabend's Against method (1975) a persuasive as well as an appealing study. The different disciplines called upon to interpret social change and communications may each have descriptive value, and they may also be of value for prescriptive purposes. Because of their imcompleteness they tend to fall down, however, in terms of their capacity to predict.

I I I

Australia and identity

"Data on the communication system will only have true meaning when related to the basic demographic and physical structures of the particular country. One should add to them the socio-cultural factors, in which case the relevance of communication models on the basis of which the data are analysed also becomes crucial". (Unesco, 1978b).

The basic demographic and physical factors about Australia are easily summarised. It is the socio-cultural factors which present problems, and which will detain us longer. It is a large, ancient and in the main inhospitable country with huge tracts of desert and arid land from the Great Australian Bight in the central south through to the north-western coast, and with mangrove and swamp along large stretches of its northern coast. Australia's few hundred thousand Aborigines, living in many distinct tribal and language groups, were largeley unknown and untouched outside the continent until European settlement began in the late eighteenth century. Geographical and economic considerations contained the rate of settlement and extension of European communities. These gradually exterminated, expelled or assimilated the Aboriginal population in establishing what remains the dominant settlement pattern - a ring of urban communities in the East and South-East coastal area, including Tasmania and west of Adelaide with agricultural or mineral-based hinterlands. The largely separate colony in the West, like other parts of the country yet still more fortuitously, also chanced to become a British rather than a French colony. The continent might well have become the site of several different European settlements - French, Dutch, English - and so perhaps different countries, or a bilingual country like Canada. But Great Britain, by a combination of accidents and initiatives, became the sole colonial power (Blainey, 1966). Its early role as a series of penal settlements is widely known, although the socio-cultural implications of this are variously and speculatively described.

More tangible and significant, but probably less well recognised in

Australia as well as abroad, is the 'tyranny of distance'. Geoffrey Blainey chose this title for his 1966 economically oriented history which explores the effects of distance, and communications problems, within the country and between Australia and other parts of the world, especially the British homeland and the other European countries from which white settlers were drawn. Developments in land and sea transport and communication (new forms of sail, steam, the railroad and the telegraph), and their interaction with the moveability and marketability of such raw materials as Australia could produce or uncover (wook, wheat, gold, timber, whale products, minerals) provide the infrastructure and the texture for Blainey's account. The immigrant population grew slowly through the nineteenth century apart from the dramatic surges of the gold rush, but almost doubled from the time of the Second World War with the massive assisted migration of the post-War years through to the early seventies. Immigration is now on a very modest scale and restricted in the main to certain needed occupations and skills. The population stands at about fourteen million. The total Aboriginal population of about 200,000, maybe two-thirds of the total when European settlement started, is mostly part-Aboriginal (identity being on the basis of self-identification, not a caste formula). The tribal minority, some of whom are re-emphasisin traditional culture, social controls and life-styles, live in the main in the least accesible and most inhospitable areas of the desert Centre and the tropical North. Here the tyranny of distance has afforded some fragile shelter from the tyranny of race and economic aspiration. A contemporary concern with the disadvantage of the geographically remote, both Aboriginal communities and those who work with them and, more vocally, remote mining and rural communities, emphasises the continuity of this theme in Australian history. We return to it in chapter 7 in considering satellite communication in Australia.

Three related themes from the later part of Blainey's history interest us here: the source of immigration and its effects on national identity and relations with Asia; the sources of capital for economic development; and relations with the imperial power or mother country, Great Britain. In the late 1850s, 4 per cent of the pupulation was Chinese because of the gold rush, and there were tensions and racial clashes

in Victoria. Other non-European groups were important in the northern half of the country: the so-called Afghans (actually Pakistanis), to provide the physical communication system of the camel trains; other Asian and Island peoples for pearling, navvying, the sugar cane business, throughout the tropical arc from northern Western Australia to the Queensland coast in the tropical east. "The fact that coloured races were essential pioneers in tropical Australia has long slipped from memory, but it is almost wishful lapse of memory"; Blainey remarks that Australia achieved racial unity (through the casuistically denied 'white Australia' immigration policy) by over-riding the interests of northern development, including probably the wishes of the majority of settlers in the North (Blainey, 1966, 318-9). The price of this has been later Asian resentment of the white Australia policy; few of the North's resources were used to support the small European population in its styles and at its expected level, whereas it has the potential to support a much larger Asian population. It is indeed now being predicted that in the next ten years whites will have left most of the remote north to the Aborigines, withdrawing to the 'urban ghettos'.

Australia's net gain in migration 1860-1947 was surpassed in the next seventeen years. This phenomenon, which Blainey and others describe as an Australian form of defence expenditure, was assisted by the closing of the United States in the twenties as well as the reduced remoteness of Australia from Europe with more reliable, faster and efficient transport, as well as telegraphic and radio communications. Although Australia is physically close to South-East Asia, its great land mass is itself a barrier to communication; again the atlas can deceive unless one remembers the location of the population. Northern Australia, which is close to Asia, is showing some interest in developing a tropical and Asian regional identity, especially with the approaching independent Statehood of the Northern Territory. The same phenomenon is discernible in muted form in centrifugal Western Australia; Perth is closer to Singapore than to Sidney. We may agree with Blainey that Australia's relative freedom from racial and nationalist conflict - the near-extermination of Aboriginal peoples and culture excepted - is easily understood compared with other newly settled lands (the Americas, Africa),

but also note that the massive assisted immigration of the post-war period, which was intended to keep Australia British in character, in fact included large numbers of Europeans of many different languages and cultures. Australia now is a country of considerable cultural diversity. The rights, needs and claims of its different language minorities, refferred to as 'ethnics', are now significant to Australian identity and, inextricably, to communication policies and provision.

The massive influx of population boosted economic activity and also overseas capital investment. Until the early sixties British investment in Australia was still slightly ahead of that of the United States each year, although USA and Japanese investment has become economically and politically more important in recent times. Blainey shows a connection between this and communication through oil: "oil engines spurred foreing investment in Australia. Just as the spread of railways had once been the largest single avenue of foreign investment in Australia, so the oil engines spurred a new wave of foreign investment. North American companies came to control all the main automobile and tractor factories in Australia, the main oil refineries, the petro-chemical industry, most of the petrol-selling companies, a line of roadside service stations. They invested the most money in the search for oil and controlled the only producing oilfield. Through transport changes key sectors of Australian industry belonged to overseas owners. Partly through transport changes North America began to challenge Britain's tradition as main investor in Australian industries..." Blainey refers to the 'Yanks go home' signs of Australian nationalists during the War (Blainey, 1966, 313-4). The dependence of Australia on overseas capital for development, and the cultural as well as economic consequences of this dependence, are important themes for this essay. They relate both to the medium of communication - such as the cost of investment in modern telecommunications systems, including satellites - and to its content - the debate over local content and American or British cultural domination.

British cultural domination was indeed unquestioned by the majority through much of (white) Australian history, for all that Australia started as a series of convict colonies. Blainey observes that "Australia

and New Zealand depended so much on Britain, were in most senses imitations of Britain, that their geographical position near the end of Asia's tail and near the islands of Oceania seemed irrelevant". The Commonwealth was created in 1900 as a federation of the six States (all ex-colonies) but the First World War tightened relations with Great Britain as well as providing, at Galliopolli, what is generally perceived as the effective birth of an Australian nation, immortalised through Australia's national ANZAC Day: "Australia still acted on most issues as if it were the Isle of Wight". The white Australia stance was again manifested at Versailles, and the 1931 Statute of Westminster which accorded full autonomy was not actually confirmed in Australian legislation until 1942; in bahaviour, Australia might still have been mistaken for a British colony. Blainey, who titles his final chapter 'Antipodes adrift', holds that Australia long blinded itself to the political and economic decline of Great Britain - deceived by the illusion of the red-painted atlas. However, "Britain ceased to dominate Australian cultural life; for American universities, films, books, comics, hit tunes, plays, television programmes, and American industrial design and architecture, influenced channels of leisure, and entertainment and culture in which the incoming flow was once overwhelmingly British" (Blainey, 1966, 328).

These themes from Blainey, who stands out as an economic historian with a coherent perspective and interpretation of the geographical and economic factors which fashioned the country and influenced the society, recur in what follows. We have drifted already into more speculative matters of national culture and identity, and may already suggest that it is misleading to think of Australia as a 'modern' society in contrast with the traditional. Colleagues in the Caribbean maintain that Australia and the West Indian islands have much to learn from each other, being similarly ex-colonial, dependent, developing societies. Australia is clearly not traditional (devastated Aboriginal Australia apart) in the same sense that the word is applied to Asian societies, but in economic and cultural senses it may be seen as developing rather than modern. To more tenuous matters of culture and identity we now turn. "... this phenomenon of development - the breaking away from the colonial past, the renewed search for cultural definitions and identities, the pride of developing

endogeneous means and methods to solve one's problems and to develop one's philosophies and goals, etc. 'manifests itself in a variety of ways and across a variety of societies' concerns". (Unesco, 1978a). What progress is Australia making to develop endogeneous means, philosophies and goals? In conventional economic terms it is of course a modern society. In 1975 its per capita GBP was 25 per cent higher than the next most affluent countries in the Asian and South Pacific region, Japan and New Zealand, and seventy times that of the poorest countries, Bhutan, Bangladesh and the Lao People's Democratic Republic. Only Mongolia had a lower population density and none a more highly urbanised population. Per capita consumption of electrical energy was also the highest in the region. As one moves from economic towards socio-cultural measures the prominence of affluent Australia is modified. It ranks third in terms of tertiary and fourth in terms of secondary education ratios in the age cohort. While it had the highest proportion of TV receivers per capita in 1975, the advantage was slight, and may be explained by the metropolitan concentrations of the population in the various State capital cities. It ranked third in terms of newspaper circulation, and eight in radio receivers per capita (Unesco, 1978b). Economic affluence thus runs ahead of some cultural and communications measures, reflecting a society rich in natural resources, essentially a primary producer developed by foreign investment. Its economic strength, yet dependence, is echoed in anxiety, uncertainty and curiosity as to its national identity and autonomy.

A recent press report quoted an address by the former Governor of South Australia to the Australian Chamber of Commerce under the caption "Australia a new type of colony: Oliphant". Federal Government was joining with the giant multinational companies to destroy Australian manufacturing industry, making a new-style colony "for the more adventurous and larger nations"; "Australia is being taken over by multinational companies which, once established, begin to phase out Australian activities" (The Canberra Times, 24 May 1978). It is a theme which echoes through many historical and speculative studies of Australia, permeates popular attitudes to the Americans (Yanks), British (Poms) and Japanese (still occasionally referred to as Nips) and, from fear that industry will be

relocated by multinationals to countries with cheaper and more subservient labour thus eroding union power and Australian living standards, concerns trade unions.

There are many speculative, part-historical, part-sociological sketches of Australian life and characteristics. Many of them perpetuate stereotypes or myths which the 1965 Davies and Encel reader sets out to demolish: "the notion of a community dominated by egalitarianism and uniformity is perhaps the chief of these" (Davies & Encel, 1965). The epilogue to one such study in 1971 includes the following passage: "social and political planning in Australia too often follows irrelevant, imported ideological guidelines. As a result, enormous energy might be spent on debates about whether we should or not be involved militarily or politically in a token way in south-east Asia. Meanwhile a vast tide of ideological, industrial and recreational trash from an ailing Western culture flows into the nation as a matter of unquestioning acceptance. Thus artifical styles, spurious wants, bogus social allegiances, imported neuroses, are deftly grafted onto the life patterns of our children and solemnly treated as if they were really relevant to our special kind of Eurasian environment. In time, the imported sicknesses become indistinguishable from the host body as a whole; the spurious imported 'problem' gradually, unnecessarily, becomes a real one". (Conway, 1971, 267).

This passage displays a quite common pattern of critical irritation with both Australia's failure to assert its own identity and the supposed debasing effects of the inflow of artificial and spurious 'trash from an ailing Western culture', as though Australia were not a part of the Western cultural and economic system. Positive, much less substantiable, definitions of what constitutes Australian culture and a distinct autonomous Australian national future are harder to come by. A Pacific Islander, addressing a recent Australian conference, offered a negative definition in contrasting the communal caring qualities of Pacific life and culture with the preoccupation with technology, work and achievement of Australia and similar societies (Tevi, 1978). An Aboriginal speaker on the same occasion, somewhat in the same vein, compared different European colonisations around the world and contrasted settler values with those of Aboriginal Australia.

Suggesting different possible futures for Australia, including something akin to South America, as a multiracial Asian society, he concludes: "perhaps at this stage no definite choice needs to be made. What is necessary, however, is to make sure that the more desirable possibilities remain open... Australians must begin to take account of their own destiny in every aspect of their lives, and prepare for survival in Asia..." (Willmot, 1978). For Willmot a first step should be to remove education from the hands of " 'pop' promoters and idiot radio systems, and make it again the responsibility of parents and teachers..."

Another writer who displays both the quest and the irritation of those who reflect on Australian society and culture is Donald Horne. His commonly misunderstood 'lucky country' (1964) was followed by Death of the Lucky Country after the constitutionsl crisis of 1975, which appears to have precipitated a personal crisis (or raising of consciousness) for Horne himself (Horne, 1976). Reflecting back to the earlier account, Horne wrote in 1976: "I had in mind the idea of Australia as a derived society whose prosperity in the great age of manufacturing came mainly from the luck of its historical origins. It was sufficiently like the innovative industrial societies of 'the West' to prosper from their innovations... Nor, more widely, did it show much originality in general social or political changes or world views... The Menzies-style elites were reared in an era of self-congratulation on 'national achievements' that came mainly from foreign innovation, so there was an uneasy basis to their pride..." (Horne, 1976, 93ff). Horne writes bitterly about Australia's 'parochialism' and 'provincial-minded approach' to the world economic crisis in 1973-75: "there seemed to be a genuine belief that somehow, yes, Australia was the lucky country, able to go its own way despite what was happening in the rest of the world. There was a refusal to recognise that the capitalist world... is going through an economic cirses from which it may never recover... Yet, since Australia is part of that world, Australian economic life in the future may be unimaginably altered..." (Horne, 1976, 56).

Donald Horne had a high regard for the Lsbour leader Whitlam whose

Administration from late 1972 to late 1975 followed 23 years of conservative (Liberal-Country Party) government: Whitlam sought to cultivate an Australian sense of excellence (described by other commentators more simply as nationalism); "aspects of his government included innovations as well as imitations..." The country itself, however, in supporting the overthrow of the Prime Minister by the Governor-General and the return to office of the Liberal-Country Party in December 1975, proved that it was a 'Governor-Generalate' - "most of the organs of authority in Australia are still clothed in the symbols of royalism, or at least of upper-class Britishry..." In reflecting upon the popular misreading of the ironic 'lucky country' title, Horne concludes that Australia, in the lucky style, never 'earned' its democracy, simply going along with some minimally amended British habits. Echoing the historian Manning Clark's question about the 1975 election, whether it might mark the conversation of radicalism to industrial action, he also quotes Clark - "It may well be the day which proved once and for all just how hopelessly wedded we, as Australians, are to the petty bourgeois values" (Horne, 1976, 86, 95-6, 99).

We see here a political as well as economic dimension to the discussion of Australian culture and identity. For most social critics and commentators who have contributed to the critical quest for identity 1972 was a watershed, a coming of age or recovery of direction of a country led for the laissez-faire right throughout the affluent, lucky, lazy fifties and sixties. The sense of disillusion, of overwhelming complacency and conservatism, following Whitlam's dismissal and the return of a strong conservative Administration, was therefore all the stronger. The enthusiasm of the post-Second World War reconstruction years, and perhaps the spirit of Labour, if not socialism, and an independent Australian identity around the turn of the century, looking to be restored, was soon to be snuffed out. Hence, in part, the anger at Australian complacency, and at blaming the economic misfortunes of the Whitlam years on economic mismanagement rather that world trends. Ironically, Horne and others berate Australians both for being too like the rest of the Western world and for not acknowledging the likeness, common membership and common predicament. Directly or implicitly communication and distance,

in Blainey's sense, are important to this, as are the mass media which are frequently castigated for both their ownership, their political role and their purportedly un- or anti-Australian or otherwise debilitating content. Australian content has been a recurring theme in mass media discussion and regulation, another manifestation of the quest for an identity which remains unknown. It may be, indeed, that support for the 'culture and identity' movement among Australian Aborigines represents a vicarious identification on the part of self-conscious members of the dominant society rather than guilt for the conduct of forebears which is more commonly cited.

We return in a moment to the political dimension of culture in turning to the writing particularly of a new generation sociologist, R.W. Connell, and taking up Manning Clark's reference to bourgeois values. First let us reflect for a moment on the preoccupation which, the preceding paragraphs suggest, characterises much Australian social commentary with national culture and identity. The 1965 sociological reader by Davies and Encel, which has been criticised for its lack of theoretical sophistication, set out explicitly to demolish various Australian myths while perhaps, in the process, perpetuating others. The national self-concept of the man in the street was shown not to stand up to sociological analysis; the 1965 study indicates the strength of forces for stratification and hierarchy, the tenousness of the base of egalitarianism (or mateship) which is part of the chosen self-concept. The disjunction between the quest among intellectuals for 'Australia' and the lack of substance is absorbing, and helps to explain the significance of both the advent and exodos of Whitlam to and from office. Carpenter (1976) discusses how frightening self-discovery and self-awareness can be. His examples are drawn especially from remote areas of Papua New Guinea, and explore the impact of media on that society - not just the electronic media and newspapers but the camera, the tape recorder, the Census Book and the mirror. The Canberra Times, reporting on 1978 ANZAC Day, wonders why so many people, other than the old soldiers themselves, turn out for the chill predawn service, remarking that ANZAC Day "began as a sort of 'private' memorial conducted by and for soldiers and there was a time when the public was not encouraged

to attend. All that has changed. The old soldiers thrill particularly at the sight of the younger generation making a real effort to understand what it is they are trying to commemorate". (Cranston, 1978). This report should be read alongside a cartoon in the same issue showing the same old diggers at the bar after the march alongside young guerrillas sporting guns and gelignite, over a caption that 'in our day we knew who the enemy was'. The same issue also carried an advertisement seeking submissions to a government Committee on Australia's Relations with the Third World, and a news item about a series of multi-cultural meetings following the recent Canberra Week conference on 'our multi-cultural capital'.

We turn for some cohering explanation of this scene, this ambiguity over an Australian identity, particularly to Connell, both an essay on 'Images of Australia' and a study of conflict, power and hegemony in Australia life (Connell, 1974, 1977) which, along with an analysis by Kay Iseman (1977) provide some answers to the questions whether there can be a distinct Australian society and culture, as well as about the role of modern communications, especially the mass media, in this.

Connell analyses Australians beliefs about their own country in terms of images elaborated into articles and books, drawing out the powerful influence of the historian W.K. Hancock and illustrating the extent to which Hancock's themes echo through subsequent historical analyses and intuitive descriptions of Australian culture. Major themes for Hancock are the conquest of the land, the development of sectional conflict, and the 'emergence of a democratic order coupled with Australian nationalism'. Illuminatingly, Connell observes that urban history has been ignored by subsequent historians, as by Hancock himself; this despite the predominantly metropolitan character of modern Australia. As to the egalitarianism which Hancock finds interwoven with nationalism, Connell discovers two variants, one which is essentially working class, the other which is middle class; the latter holds sway with most later writers but "each has attributed it to his own period". "The idea that Australians are an easy-going, somewhat thoughtless lot... runs through the whole of Hancock's analysis of the economic system and public

enterprise" (Connell, 1974, 36).

How far have Australian analysts broken away from the powerful Hancock tradition? Connell finds "a homogeneous tradition of social comment and criticism" but also some search for alternatives, including the attempt at demythologising by Davies and Encel mentioned earlier, which was only a very qualified success - later Connell judges the book to be static, and totally lacking in social theory (op. cit., 41). Elsewhere he refers to Mc Queen's A New Britannia (published five years after the Davies and Encel study) as a vigorous refutation of "that great standby of colonial social analysis, environmental determinism". Mc Queen, in taking a different approach to national character and the 'Australian legend' of the bush and the outback, develops a much more systematic and coherent basis for analysis (Connell, 1977, 16-17). Mc Queen, under the title 'The suckling society', finds Australia to be an outpost of an empire, first Britain, then American, which has become derivative, dependent and closed - "derivative from another society and place in such a way as to seriously impede the evolution of an appropriate relationship with our geographic and political surroundings; dependent... in the sense of seeking innovations from outside our environment rather than through creative adaptations to it", and closed in the sense of lacking in internal critique and based on the "repressively homogeneous nature of Australian society" (Mc Queen, 1976, 65). He sees its penal origins as reversing the normal sequence whereby the changing nature of society brings forth a State: a strong central administration from the outset had as a function "to fashion a society around it".

For Mc Queen, Australia, a rich white outpost of the British Empire, merely transferred across to the United States' imperialism after 1941. Protest movements are likewise derivative or imitative of the United States, "largely because Australian society derives from outside Australia". Australia was unable to benefit from the peculiar strengths of isolation because it was open to every English and later American vogue; Australia's absence of a film industry is credited mainly to the same cause. One may contrast this with the protection afforded a tradi-

tional, for instance Asian, society by its own language or languages. Mc Queen sees Australia as inheriting and willingly adopting "the worst aspects of triumphant capitalism" and, because of its recent post-feudal origins, lacking even the alternative cultural source afforded by the American Old South from which "a critique of a society founded on the cash-nexus could be drawn". In his view "Australia is not a society in its own right, and can never be understood by searching for the true genuine Australian essence. Many of the flaws in our way of life can be seen most vividly by imagining what we would be like if our society had evolved here over the last thousand years... our inappropriate dress and diet remind us how completely we remain an Anglo-Saxon outpost". (Mc Queen, 1976, 66).

Connell similarly challenges the very concept of a distinct Australian identity, and from a similar analytical perspective: "the analysis of Australia's relations with the outside world in terms of the achievement of an independent nationality... is something of an anachronism... the urban-industrial culture which formed the tissue of Australian life was an international culture. Seen in this perspective, every nation and every perspective which participates in this culture is and will remain a province of the whole, a field for the interplay of forces from scores of other centres. Australia has not moved in the direction of a distinctive nationality, and cannot while the full tide of common Western culture is set in the other direction. There is, nowadays, a certain old fashioned ethnocentrism in the very complaint that Australia is provincial". (Connell, 1974, 38-9).

In his subsequent, more detailed, analysis Connell provides ample factual data on the functioning of the Australian ruling class and the role of foreign investment to support his position. Like Blainey he finds it to be a country "in a sense created by foreign investment - though it was a long time before many Australians were to think of Britain as 'foreign'". Absentee investment and government loans became significant about the middle of last century. By 1970 foreign inveatment was estimated to control between a quarter and a third of all corporate business. Connell records the ambivalence of the conservative government parties

to this around this time, and the role of Gorton, foreshadowing Whitlam's nationalism, compared with the preference of most other Liberal leaders. Mining, in particular, aroused public criticism and concern both then and subsequently under Labour, and through to present criticism of the coal profits of the American company Utah and the threat to Aboriginal lands and lifestyle of American uranium companies. Multinational corporations undoubtedly wield considerable influence in Australia, and influence not significantly altered by the nationalism and little curbed by the closer controls of the Whitlam period.

Connell makes the important point that foreign companies' political influence would have been slight, for all their large investment share, but for the mutual interests of foreign and local businessmen. It is a theme which directly concerns us as we explore the impact of communication technology and investment whether in Australia or in countries like Indonesia: the division of interest and the alliance of the politically and economically powerful with overseas investora and developers. Connell finds three very substantial interests in Australian business which stand to benefit from overseas investment: shareholders in Auatralian companies whose share prices are foreced up by having foreign firms in the market; the business houses which act as financial intermediaries for the inflow of foreign capital; and others which do business with such capital within the country itself. "Thus there were large sections of Australian business which had a definite interest in the maintenance of the flow of investment". Connell quotes the difficulty a Senate Select Committe on Foreign Ownership and Control of Australian Resourcea had in getting evidence: 'The news media have been singularly reluctsnt to put in submissions, many pleading that they have no information or knowledge of this subject, a point of view which is hard to reconcile with the articles and editorials so continually published'. This is a particularly telling instance of the indirect influence of the presence of foreign capital, as overseas ownerahip of the news media, at least those involved in broadcasting, is restricted by law and very slight in fact". (Connell, 1977, 99-101).

Iseman, in a paper based on David Walker's Dream and Disillusion:

a Search for an Australian Cultural Identity, brings us back more directly to the question of a distinct cultural identity with which these political and economic considerations are, we maintain, inextricably interwoven. Walker traces a dream of a national identity which flowered in the early twentieth century but died in the difficult inter-war years. Iseman considers that the central concern of the four men studied, "the call to define unique Australian tradition, the search of a nation for its fundamental self... has been and continues to be an ongoing concern among critics of the society". "... those who presently assert a cultural nationalism through a commitment to an ideal of Australian republicanism draw both spirit and sustenance from the radical-democratic theories which originate overseas... The demise of the concept of national culture can be seen as a separate issue, perhaps best understood within the context of 20th-century capitalism". (Iseman, 1977, 276). In reacting against middle class 'moral priggishness' the group is held to have "moulded an image of an ideal Australian type which did not exist". Disillusion characterised the inter-war years in contrast to the optimism surrounding the birth of Commonwealth at the beginning of the century, "a contrast between the interest in social experiment before the first world war and the complacent conservatism that preceded the second". Although we are on shaky ground with such characterisations, it cannot be disputed that many historians have noted a similar reaction in America at this time. Iseman uses the expression 'cultural dissonance'. It seems that loss of confidence, purpose and faith in progress was reflected in Australia also, manifesting this country's cultural dependency. Iseman remarks of the period: "the stranglehold of American and European culture smothered nationalist sentiment not only in the arts but in popular culture as well, with the advent of silent film, the gramophone and the wireless into the theatres, dance halls and homes of Australia". "Australia did not have a strong nationalist ideal to reassert. But cultural retrenchment followed lines remarkably similar to those in the United States. Suppression of communism, strike-breaking, union-bashing, censorship, the White Australia policy, fears of the 'alien' thrust..." (Iseman, 1977, 290-1).

Iseman, following Walker, quotes examples of stories of the twenties

which idealised the native life of the bush. "To relieve the triviality of city life and replace it with a robust indigenous Australian culture". Optimistic dreams of this minority for 'cultural nationalism' however proved illusory. Iseman notes the wide base of protest on specific issues but lack of a unifying political base for developing national identity: "the general culture acceded to the strength of international imperialistic ties which offered the promise of affluent security to the Australian people". Iseman considers that belief in the possibility of a socialistic, indigenous Australian culture is at least as strong in the late seventies as it was in the early years of the century. However, "the impact of any movement towards a national culture... hinges on whether or not it is possible to mobilise popular support around an issue which can be expressed in terms of national aspirations", precisely the same hope, and disappointment, as Horne, Manning Clark and others expressed over the political and constitutional events of 1975. "The interdependent political, economic, social and cultural systems operative within a society exercise effective control over not only systems of social practices (ideology) but over individual consciousness and the unconscious as well". While Australian writers have "matured in their endeavour to explain the theoretical bases of contemporary culture" "so have those in power within the ruling culture learned to more effectively maintain the mechanisms of social control" (Iseman, 1977, 283-4).

These last observations accord with Connell's allusion to analysing hegemony at the level of the unconscious (1977, 208), and are reminiscent of the writings of Berger and Luckman and of Laing and Cooper about consensual reality and agreement about rules, including the rule not to acknowledge the existence of certain rules. There is perhaps a need for collective myth-making and symbols to affirm an identity or ideal which is distinctively Australian. One can only strive t[illegible] or to become what can be recognised and agreed upon. Communications and the media are important to the business of creating and disseminating images or self-concepts. Without such symbols, successful action may not be possible. Yet much of this wide examination of Australian identity may seem defeatist, if multinationalism indeed means that Australia

cannot be a province. On the other hand, Australia - reality or myth - seems distinctly different and unique to many Americans as also to Australians, a different society with a different value system (Hefner, 1978). From this apparently complex set of perspectives upon 'Australia identity' we proceed to consider perceptions of mass communications in Australia.

Perception of mass communications in Australia

A theme of the previous chapter was the rapidly growing consciousness and sophistication in Australia specifically within sociology and perhaps more widely about social and socio-political issues. If there is to be a distinct Australia, in the sense of a national identity and character, an Australian society which is more than a province or satrapy of a single Western socio-economic and cultural system, such emergent awareness and critical capacity is essential. We need not apologise if this essay appears to preoccupy itself with alternatives rather than with the mainstream or cultural norm.

We consider here more directly the role of the media in Australia, mainly popular and intellectuals' perceptions. This sketch will tend to support the hypothesis that technological change may be rather insignificant, incidental rather than causal in terms of socially significant communications 'events'. Technological advances may not be a necessary, much less a significant, condition of socially significant communications. At the same time we recognise concern from several perspectives about the supposed effects or possible consequences of technological advances in this field. In the next chapter we consider moves in the direction of communications systems planning. Here our focus in on Australian images and perceptions of communications and the media.

We noted in the previous chapter the relative affluence of Australia compared with most countries in its geographical region, in terms of both television and radio receivers. (This must be distinguished from content, to which we refer below). These media apart, Australia has a press which has become more consolidated into fewer hands, and subjected to quite severe criticism at home and abroad. Its film and television film industries are stronger than a few years ago yet both are still tenuous, with heavy reliance on foreign-produced materials and considerable overseas influence on both cinema and television content snd business management. (This refers in the case of television to the manage-

ment of advertising rather than of the channels themselves). Other less salient but possibly more significant elements - video access centres, community and ethnic radio - are referred to in later chapters. We should not overlook the possibilities and significance, either, of less conspicuous lower-technology forms of communication such as local journals and newsletter, and 'folk' modes of communication within Australian sub-cultures. At the other extreme there is the serious engagement with the idea of an Australian satellite examined in chapter 7. Although the possible interface and amplification of telecommunications and computer technology has apparently not yet registered in Australia as potentially significant, the impact of computers themselves has undoubtedly won popular recognition. Indeed the mass media, especially television but also the press and radio, gave much space and time to the possible impact of computer technology on the employment situation in the later months of 1978, thereby converting quite suddenly a specialised debate into a public, and an increasingly participative one.

Some issues and themes have been implied already. One dominant but perhaps slightly 'passé' theme is ownership, monopoly and control of the media, formerly the press, but now the three main media. Another concerns content, and the effects of content on both individuals and society. Distorted reporting of news (whether by misreporting, exaggeration or omission) is one aspect, especially in areas of policy (foreign and home) and politics). Another is the effect of advertising on individual and community values and behaviour. There is more awareness of the process (as distinct from the content) aspects especially of television, notably but not only a controversial study by the Emerys (Emery & Emery, 1976). Australian pride - emergent, hesitant, national identity - is affronted by the media as means of foreign influence and domination, mostly in terms of foreign (usually American) content, but sometimes more subtly and pervasively in terms of the process and hidden messages, especially of television as a life-style. Freedom of the media is an older theme which intermingles with resistance to foreign domination, but acquires more sophistication in some recent analyses and critiques. There is concern over commercialism in all media, and over the degree of 'freedom' of the Australian Broadcasting Commission

- both radio and television. Public radio broadcasting, as a third force alongside the ABC and commercial radio, provides an alternative means of expression for those who object to commercial domination of the media and also the 'establishment' modes and assumptions which influence the ABC as a quasi-government authority. While such terms and values as 'community', 'access' and 'participation' are at least temporarily prominent and have official as well as local or community support, technology and emergent technological options attract little public interest except inasmuch as they appear to have implications for employment. The Orwellian nightmare appears to interest few in Australia, and the 'wired city' has attracted only limited interest, although Pawley's The Private Future is quoted a little, and the Telecom 2000 report (see chapter 5) attracted some attention - such as the weekly journalists' pice which reported on the possible scenario for the year 2000 and concluded "BUT I DON'T WANT TO BE A FACSIMILE PERSON, LEADING A FACSIMILE LIFE - I WANT TO BE ME!" A few social scientists of critical persuasion have developed a theoretical framework for the role and impact of the mass media in modern society. This we consider below, not only for its intrinsic significance but because of our thesis that 'Australia', as an essential component in this discussion, depends in an important sense for its distinctive existence on the emergence of endogenous awareness and identity. To this, such home-grown conceptualisation is important.

Davies and Encel, editors of the reader cited in chapter 2 which is of interest as a bench-mark in the emergence of Australian social science, themselves provide the chapter there on the mass media, drawing on anonymous sources from among working journalists whose perspective the chapter emphasises (Davies and Encel, 1965, chapter 14). Ownership and the concentration of control are prominent concerns. Henry Mayer's publication the previous year of The Press in Australia is identified as a significant event, a judgement borne out a decade and more later. The same year saw the first issue of the first national daily, The Australian, some limitations of which we touch upon below. One subject of this chapter is the role and degree of real freedom of the ABC, which commenced sound broadcasting in 1932 and television in 1956. (In fact radio broadcasting in Australia commenced with a transient form of public radio as early as

1923). It is recognised that the Commissioners inherited a "rather polite 'Establishment' tradition in programme making" although they were authorised to exercise independent power, and that they went so far, in the case of the challenging current affairs programme Four Corners, as to remove staff in the 1963-64 disputes. This, it is reported, weakened public confidence in the Commissioners' management of the Commission's affairs. Davies and Encel note that control is exercised by conveying a cultural climate and general atmosphere, rather than by direct interference such as some newspaper owners and editors exercise: "the ABC's reluctance to permit free discussion of ideas, its conformity to standards of 'safety' and familiarity ... does not encourage the notion that publicly-controlled mass media can act as a countervailing force against monopolistically controlled press". (Davies and Encel, 1965). This suggests some caution over accepting too easily the view that "in the field of information, it may be good to keept in mind that multiple sources are not necessarily bad. They may, in fact, increase public credibility of public organisations..." (Unesco, 1978a). Protectiveness towards the ABC has mingled with criticism over recent years, especially with the events of the past two years (see chapter 6). In addition, growing awareness among the 'intellectual-cultural elite' of linkages and cross-ownership between the different media, newspapers and television especially but also radio and periodicals, and, possibly, more widely shared suspiciousness of authority (one of those elusive and unprovable 'national characteristics' alluded to in the previous chapter) further reduce the credibility of the message even from several distinct media. However, the real influence of the media remains unsettling and elusive for many Australians writing on the subject.

The second reader previously quoted, Edgar's study of social change in Australia, includes an essay on the role and work of journalists (as distinct from media owners and from the impact of media in general), and a study of the influence of the media by Patricia Edgar, "Self-perceptions and mass media violence", which comments on the absence (in 1974) of good mass media research; opinion, prejudice and 'number-crunching' are alike superficial and lacking in sound underlying theory. Her emphasis is more on individual psychology and behaviour that on societal fac-

tors (inasmuch as these are inseparable). The study by the Emerys alluded to above probes further in this direction, linking possible neurophysiological responses to social consequences. Although speculative, it is of interest as an Australian attempt to bridge several disciplines and relate physiological consequences of the technology and medium of television - distinguishing colour from black-and-white - to social effects. The interest it has generated among scholars in North America also represents an unusual flow of influence and 'foreign domination'.

We do not examine Marshall's 1974 account of the work of pressmen, except to note its connection with political and class questions of ownership and work in the mass media which surface from time to time, and are germane to the theme of hegemony explored below. There have been strikes and other disputes sporadically when working journalists have found intolerable the political stance taken by their employers, usually but not exclusively in relation to elections. 1978 has also seen a significant and highly publicised dispute between management and communications employees over the introduction of new technology by the Telecommunications authority and its expected effect of redundancy and exacerbated unemployment. This does represent a direct response to technological innovation in the communications sector. However, it is still incidental to our main interest, which is about the impact of technological innovation influencing communication modes per se, not merely communications as one employment sector. The other aspect of press and pressmen to be noted here is a glamourisation and possible abuse of working journalist as a defence of the freedom of the press, and one key to democratic society. Thus Margaret Jones writes of 'the growing risks of journalism' in The Sydney Morning Herald (January 19th, 1978), documenting cases of censorship, banning or closure, defamation and other forms of legal and physical harrassment suffered by journalist around the world. It is not easy to distinguish appropriate respect and support for journalists seeking to uncover and communicate truth as a professional and personal responsibility and compulsion from glamourisation calculated to ward off criticism of media monopoly; some recent Australian studies have, however, documented the distinction (see in particular Mc Queen, 1977, cited below).

Finally, Edgar (1974) includes an important essay on theory and

research, to which we have already made reference, and which both queries the real influence of the media and implies the methodological framework of Connell discussed below: "it should be understood that for critical theory the media are just one of a number of means by which the one-dimensional society conditions its members - another is through mass edication... but more generally the entire universe of discourse is closed and self-reproductive and thus contains* the immanent possibilities for change - in ordinary language, the job, science, academia. The recognition that one must not overrate the power of the media in no way lessens the validity of the critique..." (Sinclair, 1974, 623).

A substantial reader in Australian politics published two years later includes two chapters on the media by Henry Mayer which suggests further maturation in study and awareness of this field; "there has been more movement in the study of and concern with mass media in Australia between 1972-75 than for decades... The old days, with focus on the press, on issues of ownership and bias, or on a narrow view of "effects" of the media, are drawing to a close" (Mayer and Nelson, 1976, 120). Mayer notes the new interest in news as a social product and the role of media in legitimising social systems: "it has also focused on the newly available opportunities for divertisy, antagonism and choice provided by cable television and the access movement. It has opened up the more general issue of the relations of technological change in social structure". Mayer notes the significance of access groups and educational public broadcasting station in March 1975). Writing at this time (1975), Mayer observed that the Department of the Media itself helped to bring some media into day-to-day politics, and that a Liberal Government might abolish the Department. He likewise speculated on the long-term fate of the Melbourne ABC and access station 3ZZ which was 'ruffling feathers'. Chapter 6 takes up the story of community access and ethnic radio. The main point here is that by 1975 the electronic

* We take this to be intended in the negative sense of controlling or boxing in, rather than having latent within it.

media were firmly in politics. Mayer speculates about the possibilities of forcing some of the media to give public account of themselves through hearings for licence renewals, etc. Despite the dissapointment felt among the community participation-oriented about the fate of 3ZZ and among liberals about the cut-backs and controls administered on the ABC, the public hearings of the Australian Broadcasting Tribunal in 1978 suggest some substantial shifts in this direction. In mid-75 the six trends which Mayer discerned were: the beginnings of some link-up between people active in the generally very fragmented different media (perhaps belatedly mirroring the cross-media influence of the large media owners); recognition of the potential of legal processes to generate change, with radio - FM, community access - as the leading edge, "a medium almost totally neglected for decades"; establishment of courses in media studies; research by activist groups and to some extent in tertiary institutions; maturation of a Labour Pary policy on the media expressed through the new Department of the Media, but with important limitations and omissions from Mayer's perspective; and the various media reform movements and groups. Mayer asks how radical 'access' really is, and points out the extent to which this depends on what kind of access. Likewise the existence of migrant or ethnic access radio in itself is a neutral issue; its significance depends on the conditions and style of such stations. "Migrants, especially Asian migrants, or black or gay or children's and students' stations could challenge the basic tenet of Australian society - that of homogeneity plus 'tolerated deviance'... Overall one may expect most migrant stations to slightly annoy a number of people by their very existence but to work well within the main confines of the system" (Mayer, 1976, 128). The key strand in the more radical version of access is to break the present active/passive, sender/receiver structure of the media; for some, this means working through and within the system without being co-opted by it, while others see the only viable stance as complete autonomy from controls. The practical difficulty is that: "(1) Existing preferences, wnats and perhaps needs are strongly influenced if not almos completely shaped by the very interests that benefit from the existing media system. (2) Most people are unaware of possible alternatives. The system makes sure of this... Habit works very strongly in favour of the status quo". (Mayer, op.cit. 129).

The development of community and ethnic access radio is a conse-

quence of political decision and perhaps underlying socio-cultural shifts, and not, as Mayer makes clear in another paper, of technological change: "frequently space for more AM stations through frequency sharing had always been available and this fact had been publicised... in 1965. It was a political decision not to make this clear... It was with surprise that the Minister for the Media announced on 20 February, 1974, that AM stations could be doubled. Since there has been no sudden technical breakthrough, the 'discovery' of the possibility of doubling radio stations must have been made because the political and social climate permitted, if not demanded its announcement" (Mayer and Nelson, 1976, 151).

While most of the interest in media developments among radical groups has concentrated on radio, there has also been probably some enhanced understanding of influence and control of the other main media in recent times in Australia among a wider public. The role of the press in particular in the 1975 and 1977 election campaigns, and over the dismissal of Whitlam in 1975, may have heightened public consciousness. Donald Horne wrote of a feeling of shame for the first time in his life at having been a journalist, "the foreign journalists who came to see me... said they felt it too. The unanimous stridency of the newspaper vendetta was for them a uniquely Australian characteristic of the election..." (Horne, 1976, 64). The British Guardian, commenting on the Australian 1977 campaign, wrote of "the undoubted and shocking bias of the media in Australia" as having been of enormous benefit to the Government. "Not even one major newspaper, radio or television station has supported labour. Though this media campaign has been less outrageous than in 1975, it has enabled Mr. Fraser to skirt issues and dominate the election... The media is controlled by just three large organisations and all are Right Wing. None of the newspapers even pretends to be impartial. It is an open secret that the prime minister keeps in close contact with the propietors. Though the Press tends to be politically conservative in all Western countries, in Australia the lack of any alternative voice raises fundamental democratic questions". (The Guardian, 10.12.1977). This was one of several recent occasions when the staff of a major newspaper refused to print the owner's blatantly pro-liberal

leader.

The same Murdoch press was the subject of a leader in The Financial Review more recently for its stance against married women working, which raised similar questions: "normally the campaigns of one section of the media, no matter how absurd they might be, are not commented upon by other sections. But Mr. Rupert Murdoch controls - and that is an accurate description - a large slice of the Australian media... Furthermore, Mr. Murdoch is a man who has been close to Prime Minister Fraser. He is one of the most important inputs that Mr. Fraser seeks out from time to time". (The Financial Review, 16.1.78). Another example of critical awareness of the role and process of the press was provided by The Canberra Times on the occasion of the 1978 International Press Institute conference in Canberra. A feature article by Ian Warden commented sceptically on the dispensing of news "as if it were some kind of worthy missionary work". The article examined the extent to which news is shaped and packaged to fit the requirements of the different media, and the processes whereby 'news' is selected and edited. News is not to be confused with information; the media provide "bushels of the former and grams of the latter" (The Canberra Times, 10.3.78).

These few examples are taken to suggest that awareness of the processes of the media is becoming less uncommon, and is finding its way from research and other specialised literature into more public places, together with more familiar reports speculating about the effects of television-watching on children; these range from the screen, or at least restricted to late-night viewing, through to more subtle considerations of the influence of American content and advertising on values, diet or life-style, and to considerations of the actual process of large amounts of viewing on both the individual and the nature and quality of community life.

Other less popular writings display still more sophisticated awareness of the nature and social implications of the media. An article entitled 'Radio Today' was reprinted by the Education Unit of the Australian Council for Overseas Aid in June 1976. Again, as in the piece by

Warden, the emphasis is more on the process than the content of the medium, including the processes whereby certain kinds of people and activity are selected for attention, with the effect of reflecting back to society norms and desirable models. The article echoes the findings of Patricia Edgar (1974) as to which kinds of people get most exposure, and the ignoring or stereotyping of working class and other groups. The paper calls for decentralisation, pluralism and user-orientation, as well as widespread participation. "A central concern should not be whether the people who run radio mean well but rather whether they should control such enormous power... It might well be optimistic of us, but broadcasters should take the initiative in deliberately undermining their own positions and accpet that they are skilled workers who should be placing their skills at the service of the man, woman and child in the street to enable them to say what they want in their own way... Once people become thus involved they learn a great deal about the subjective process that characterises the media and the process of de-mystifying the media has begun... Radio could be used to encourage people to talk with each other and to get to know each other... There is a need for... 'a sustained policy of familiarisation' - encouraging a community to become familiar with itself". (ACFOA, 1976). We see coming through an anti-professionalisation which tends to go along with simpler methods and technologies rather than relying on technological innovation. This is not to say that all in the communications field interested in social impact and social change are luddite or even 'alternative technology' people; this is clear over satellite options (chapter 7). However, there is no necessary connection between socio-cultural and technological significance (which does not in itself disprove the thesis of technological determinism).

Two studies published in 1977 take further and present more systematically aspects and interpretations mentioned by Mayer. Connell's analysis of ruling class and culture, cited above, has a chapter on the media and middle-class culture. Mc Queen's Australia's Media Monopolies provides a well-documented Marxist analysis of the role of the media which harmonises in essentials with Connell's interpretation.

Mc Queen documents the concentrated ownership or oligopoly of the

Australian media. Mayer points out that even in 1969, Australia ranked second among 15 developed nations in terms of concentration of press ownership, and that "the process has gone apace among dailies since then". Mc Queen analyses the concentration of ownership across the main media (press, radio and television) and the interlocking of the main groups, except the Murdoch press, with other forms of big business (Mc Queen, 1977, chapter 2-6). The Murdoch press is different in concentrating in media business overseas as well as in Australia, rather than becoming involved in other kinds of enterprises, as are the other major owners. Mc Queen portrays the direct political interest and involvement of the big owners, thereby and in other ways challenging the stance and assumptions of 'freedom of the press'. The conflicting perspective of working journalists compared with owners and sometimes editors emerges, including the difficulty for journalists as control, and so job opportunities, have come to be concentrated in very few hands. Mc Queen also provides a persuasive and dismissive critique of the supposedly more radical papers (The Financial Review, The National Times and The Melbourne Age), which he sees as necessarily refining, criticising and making more efficient the working of the dominant (bourgeois capitalist) system rather than providing any real critique and alternative. The role and the discrediting of the first national daily, The Australian, in 1975 and subsequently, is also documented (Mc Queen, op. cit., 78-80).

Mc Queen confirms that the Australian press itself is essentially Australian-owned, a position supported by legislation. This does not mean the foreign, and multi-national, influence is not considerable. Henry Mayer tells us that 73 % of foreign television material comes from the United States, 24 % from Great Britain and only 3 % from all other countries; the cost to produce a programme locally he estimates to be about five times as high as purchasing in America. Picture tube, communications, or cultural, imperialism has a sound financial base and rationale (Mayer, 1976, 145-6, 153-4). Mc Queen brings out the significance and influence of American control of advertising, and the overriding importance of this to commercial television. While ownership resides with Australian firms the major customers are controlled from

abroad. Eighty per cent of all production money spent in Australia on maing television film goes on making commercials: "it often costs as much to make a sixty-second advertisement as it does to make a sixty-minute feature". Cuts in the ABC budget from 1975 further reduced opportunities for locally produced television material and Australian content. In a chapter entitled 'Voices of America', Mc Queen describes the rapid take-over of the advertising industry in Australia by foreign, mostly American, agencies; in 1975, for example, eight of the largest ten were American, the other two being British. Only big multi-national agencies are able to meet the difficult financial conditions of the Media Council of Australia. Mc Queen quotes evidence that the agencies have moved in to protect the international accounts of large multi-national corporations, and compares the situation with that in Canada where, despite laws compelling Canadian ownership of the mass media, their single greatest source of revenue is foreign-controlled. He also discusses the apparent increase in Australian content (from 16 to 56 % from 1957-61 to 1972-76) in response to national demand for more local programmes, but argues that "many Australian shows are little more than US shows with local setting". This suggests the need for a more sophisticated analysis of the nature of foreign influence and the meaning of local content. Mc Queen also shows, by reference to American experience as well as Australian, the effects of the rating system in squeezing out or ignoring the interests of disadvantaged sectors such as the elderly, the rural, and ethnic minorities: "we are free to choose which ever US television programs we like from those which appel to America's big spenders"... The cultural cringe towards England (and Europe) turned into a collapse before the might of the USA especially in the 1950's". (Mc Queen, 1977, 11, 144-152).

Referring more specifically to technology, Mc Queen suggests that the remainder of the century will see changes not so much in terms of fundamentally new media (like radio, sound films, TV, cassettes) as in delivery systems - satellites, computers, cable. Satellite transmission of facsimile for newspaper printing is mentioned, and the transition problems this will raise for newspapers if equipment is written off in the face of computerisation. Mc Queen concludes that "the new technolo-

gies will add names to the list of media monopolies, names such as IBM and AT & T, bringing more direct involvement of US transnationals in Australia's media" (174-6). He adds that "not just Australian publishing but every aspect of our social, political, economic and cultural life will be tied to these US-dominated firms as our annual capital spending on computers doubles to an estimated US $ 634 million by 1980, with nearly a quarter going to the manufacturing sector" (op. cit., 178). It has been pointed out that the 'computer revolution' may exacerbate unemployment in Australia, since there is no Australian manufacturing industry. Public debate on the computer revolution has not as yet, however, recognised the potential significance of the linking of communication and computer technologies; it is almost entirely limited to the question whether, and ho much, computers will destroy jobs.

Mc Queen concludes, despite the influence of the media, that they are not the most important factor in forming people's views: "the media reinforce and sharpen views formed in our practical experience of life". His own, perhaps romantic, hopes lie with the people's own media: "on job sites, in factories and offices across the country, there are roneoed news-sheets organising workers against their bosses... The vast network we need is a network of people who talk with others, who learn from them... We must enliven all the old methods - chalking footpaths, painting slogans on walls, speeches, leaflets and posters... By murals and street theatre, with songs and badges, and in a hundred other ways always surprising ways, Australians are showing the same spirit today". (Mc Queen, 1977, 197, 207-9). This may seem romantic and fanciful; but we should not be too hasty in dismissing it. In traditional societies there is increasing emphasis on traditional forms of communication, and media specialists seek to integrate them, if possible, with the mass distribution techniques of modern communications - treating too lightly the processes of communication themselves in seeking to package for radio or especially television. We have quoted Enzensberger's remarks about wall newspapers; he also observes that the Xerox, the most efficient and simple form of press, is controlled and owned by its makers, being rented rather than sold and forcing less affluent and less acceptable groups to use more primitive and less efficient forms of duplica-

tion. Again, technology per se appears to be a not very important factor, and far from being a determinant, compared with political will and social purpose.

We conclude this review of perceptions of mass communications in Australia by turning again to R. W. Connell, who has taken Gramsci's concept of hegemony and applied it to Australian society, and to the role of the media in Australia. Essentially similar concepts are presented in the work of Paulo Freire, whose main communication medium is the study group breaking the culture of silence and poverty through analysis of immediate experience and peasants' own chosen words within which that experience is contained and transmitted. Connell concludes his discussion of 'the media and middle-class culture' by observing that the very title is wrong - "as if the one were external to the other. The media are middle-class culture, or at least a very important component of it. The processes throught which they work, the transformations that their materials undergo, are central processes in the production of an ideology. I have stressed that it is not 'bias', in the sense of conscious choice of material to serve a particular point of view... It is rather the normal functioning of the media in a commercial context and a class society, which produces a selective and eventually mythologised version of the daily history of the social order". (Connell, 1977, 204).

Connell points out, as have Mc Queen and others, the link between the Liberal party and the press, for instance during Menzies' time. The main point, though, is the predisposition to vote conservative and the role of the media in merely predisposition to vote conservative and the role of the media in merely passing on the necessary information, a function now carried over to the electronic media. "... press proprietors (and now television proprietors) have maintained the mixed business and political role that other groups of businessmen have long since dropped" (op. cit., 194). Connell sees the media as maintaining an ideology of progress both in what they advertise and in their manner of presenting things as news: "the media are thus agents in the care and maintenance of a growth economy..." The most important impact is a system of symbo-

lisation, as a language "with a structure and constraining power of its own". Cornell proceeds to show the selectivity of the media in reflecting back to society only a middle-class image and experience, and the effect on those events which are selected as news - cut off from their own history and transformed into type-events or symbols (op. cit., 196-7, 200).

We do not pursue here this theoretical analysis. Our purpose in going thus far into identifying different theoretical positions has been to demonstrate the rapidly enhanced sophistication of those in Australia who have chosen to study and write about the media, noting along the way the extent to which technological innovation is seen to be a casual or otherwise significant factor. We have witnessed a fairly consistent emphasis among the critically aware on interactive, decentralised, and participative, variety-enhancing forms, yet a growing recognition of the social funciton of the mass media in integrating and underpinning a homogeneous middle-class society. As we turn now to the question of planning and a communication system, we need to keep in mind these functions and perceptions, as well as earlier questions about a national identity and self-concept. For example, do the requirements for planning a technological infrastructrue, where major investment decisions are required, imply exclusion of options and a measure of determinism which overrides the largely non-technological or anti-technological stances of the radicals? Does the diversification into community access radio, in particular, mean a break from hegemony - the media as middle-class culture - or is this merely another form of national integration and a form of cooptation?

Towards a national communications system and policy?

"An example of a well documented and co-ordinated communication plan within the region might be 'Telecom 2000' which was drawn up by the National Telecommunications Planning Branch and submitted to the Australian Telecommunications Commission. The study looks to the future of telecommunications in that country over the next 25 years. A significant aspect of the study is that it takes into consideration not only the developments in technology but also their relevance to and impact upon social needs" (Unesco, 1978b, 34-5).

"There are two fundamentally different ways to conceptualise the role of a telecommunications authority. One is the role of a supplier of telecommunications hardware and software. The other is the role of a provider of communications. During the two-year long Telecom 2000 Study it apperas that a lot of attention was paid to examining the provider-of-communications concept as a basis of the future role of Telecom Australia. A superficial reading of the Telecom 2000 Report also suggests this concept has been in the minds of its authors.

However, a more careful reading of the Report makes it clear that the role envisaged for Telecom Australia is seen in terms of a supplier of hardware and software and that the Report has a strong technology bias". (Peckover & Evans, 1976).

"The Post Office manages to keep its 'Year 2000' wired city project and work on cable TV pretty quiet". (Mayer, 1976, 125).

"For as long as prospective satellite telecommunications are discussed in the bleached language of OTC Annual Reports, the pathetic TELECOM 2000 Report, and the Report of the Commission of Inquiry into the Australian Post Office, Australia will be open to whatever the US wants to feed us. To read TELECOM 2000 after reading the earlier report on telecommunications in Canada - Instant World - is to become acutely aware

of the extent to which Australians are being kept uninformed about this very important question. Instant World at least asks all the questions about foreign control of satellites and computers. TELECOM 2000 ignores them completely" (Mc Queen, 1977, 182).

There have been many recent events in Australia relevant to the question of a national policy and system but little agreement or sense of common purpose and direction. The most thorough and best known report in this field, Telecom 2000 (Telecom Australia, 1975), has been received with far from unanimity, and later reactions have tended to be less favourable than the earlier. Referring to the formulation of communication policies a recent Unesco document emphasises the need to establish "institutional frameworks necessary for a rational use of communication in its broadest sense. It would therefore be important to recognize that such sub-areas as telecommunications, post and telegraph services, transport, etc., where effective frameworks already exist, may provide some useful clues" (Unesco, 1978a, 9). We find ourselves here widening our field from the mass media which have mainly interested us hitherto to the communications infrastructre developed and managed by bodies like Telecom and Posts and Telgraphs, and which supports one-to-one and mass communications. While we have so far largely skirted core questions of technology and tended to dismiss technological determinism, we have now also to confront the question how far technological decisions and present and future forms of investment in the communications infrastructre determine forms and styles of communication, and maybe foster, or exclude, certain modes of communication which cumulatively fashion or influence the quality of social and cultural life in Australia.

Communication planning is not a familiar or easily acceptable concept in Australia, although in terms of degree of regulation and political control Australia sits well along the spectrum of countries towards the 'State capitalist-Third World' end. It has a licensing and control structure more usually associated with such planned economies. As such, one thinks of a context of national integration and social control rather than those few countries where the emphasis is really on

structural change - China and Cuba, Vietnam, Tanzania. The question is therefore posed whether communication planning in Australia is motivated by this purpose, or at any rate undeliberately expresses this function. On the one hand, there is a tradition of regulation and control unusual in western societies; the editor of The Melbourne Age judged the Australian press to be 25 % free on a scale which places the United States at 100 % and Great Britain at 50 %, aminly from the harsh and restrictive defamation laws to which the Freedom of Information Act provided only part of an answer (Four Corners, October 1978). There is also a tradition of hostility to the idea of planning on the ground that this betrays the democratic freedom of the press and the journalist. Such was the hostility that the metropolitan newspapers initially refused to have anything to do with the National Commission for Unesco when it was created in 1948; the communications sector of the Organisation and the Commission were seen as a threat to press freedom. This tradition has survived through to present times, and has been manifested in the hostility with which the Australian press commented on Unesco's 1976 Latin American conference, in line with the stance of the I. P.I. and other watchdog bodies, and in the stance to the 1976 draft declaration. The I.P.I. conference in Canberra in 1978 was the occasion of further criticism of Unesco and some myopia about press freedom and the practical meaning of this on the part of less wealthy, more dependent, societies.

There is tension between this and Autralia's own culturally dependent status - witness the periodic concerns about Australian content on television. However, press freedom, media monopoly, foreign content, government regulation and covert (or self-imposed) censorship, and the question of communication planning, seem all to live for the most part in separate compartments in Australian thinking. The apparent contradictions which would require confronting were these brought together are thus largely ignored; at least among the owners of the main media, communication planning remains unfashionable. The proposition that "in many of the countries, the political, economic and social changes that have been taking place have resulted inevitably in a climate in which the media have had to re-define their social responsibilities in rela-

tionship to the present and future needs of the societies they serve", that media rights and responsibilities are effectively balanced up with public rights and responsibilities, is not obviously applicable to Australia (Unesco, 1978b, 25).

There is a parallel with educational planning in the sense that Australia lacks of a national development plan of which education is a sector or component, and so finds difficult dialogue with Asian partners not shy about comprehensive planning. The considerable amount of educational planning and model-building - much increased with the crisis in education and the economy since about the mid-seventies - has not been enough to displace the Australian laissez-faire style and tradition. The problem is further exacerbated by the federal-State structure. The difficulty is, if anything, more marked in non-formal education, as distinct from the formal education sector, which is closer to problems of communication planning and co-ordination; one can think of both non-formal education and communications as society-wide services and processes rather than the line responsibility of any one department. Short of a major crisis threatening national survival, the main thrust for communication planning probably comes from the department or authority which finds itself responsible for making long-term communications investment decisions. Telecom 2000 and the 1978 satellite report (see chapter 7) are of particular interest in this respect.

Although planning in this area is anathema to many who are influential politically and commercially, we see in recent years a number of disjointed incremental steps towards communication planning, without a clear trans-sectoral concept or context. The short-lived Department of the Media set up by Labour helped to bring media into public focus and the arena of policy, but not to produce a comprehensive media, much less communications, policy. An important event was the interest of the 1974 Senate Standing Committee on Education, Science and the Arts in TV and radio, though it did not support the idea of a national communications policy. There has emerged over this period a new third force in radio, which has tended to be the leading edge and the area of interest for radicals interested in the media. Commercial radio and the ABC

are now joined by community radio (educational, access, ethnic), and the Public Broadcasting Association of Australia has become a body to be heard and reckoned with alongside FARB and FACTS (the Federation of Australian Commercial Broadcasters and Television Stations). It has been argued that the very existence of the publicly owned, yet timidly inhibited, ABC actually disadvantages Australian public interest in broadcasting, defusing the criticism and confrontation of exclusively commercial provision such as is seen in the United States.

Community radio activists can speak for a system of provision within this framework, even though their touchstone is decentralisation and diversity: "a decnetralised system of radio would include the ABC and commercial radio but would also include stations which specialise in a particular format (such as all-news or a particular music), stations run by ethnic groups (such as Italians and Greeks), stations run by interest groups (such as elderly citizens or service organisations) and stations run by local communities (such as the inner suburbs or the Dandenongs). The need is for sufficient alternatives to be provided so that people can freely choose the way of working, living, using and responding that most suits them". (ACFOA, 1976). We probe more closely in chapter 6 the story of access and control over this 'third force' in radio. But there is no doubt that the recent developments which we have noted are socially and politically, not technologically, determined - since the frequencies were available all along but their availability kept unpublicised - they have been officially permitted and institutionalised through the licensing procedures of the Australian Broadcasting Tribunal. More interesting is the impact of this procedure on the commercial sector which led to a crisis over powers and confidentiality with the first public hearing for a television licence renewal in Adelaide in October 1978.

We leave aside from this account the press, acknowledging what has already been said about its economic base and rhetoric of freedom to protect the present ownership structre. Mayer asserted in 1976 that there was no media policy on the press and hoped that the days of futile discussion about having a press council were passed; on the other hand,

that if an economic crisis affected the press Government might take some responsibility for communication channels without dictating content. Computerisation of the industry and the costs of transition incurred might indeed have such an effect, as other commentators have speculated. In a postscript late in 1975, Mayer notes the Liberals' commitment to abolishing the Department of the Media should they regain power, and the new lease of life of the Department under the new short-lived Minister and Permanent Head. A Press Council was again a live issue for a few weeks but, following the change of Government and the role of the press in this, the newspaper industry, instead, set up in 1976 a voluntary Press Council. Mc Queen bitingly remarks on this "vain attempt to repair the damage done to their reputations during late 1975 and early 1976", and the toothlessness of the membership and early performance (Mayer, 1976, 120, 131, Mc Queen, 1977, 200).

The word 'system' must be used with qualification in any discussion of mass media aspects of communications in Australia. It is in a commercial and cultural systemic aspect in the sociological sense that Connell writes about hegemony (see chapter 3), but not in any general and comprehensive policy and planning sense. There is also the tenable viewpoint that the existing patchwork could be complemented and filled out to give more diverse and systematic coverage in terms of matching opportunities to different needs. This is the trend, with at least official sanction and political toleration, in radio, the simplest and lowest cost of the three major mass media. We turn now to further consideration of the Telecom report, and its mixed reception, with which we began this chapter.

Telecom's National Telecommunications Planning (NTP) unit was created in mid-73. The Telecom 2000 report appeared in December 1975, inviting discussion prior to final decisions in late 1976. It sought to provide a guide to possible directions in Australia's social, economic and technical future and to likely demand for telecommunications facilities through to the end of the century. Its most distinctive feature is the attempt to identify social values and directions, and to consider the

likelihood and desirability of various futures. This approach implies that technological choices, choice about major investments allowing or precluding various communications options having social significance, are a socio-political matter and not exclusively technological and economic. The first main section is on social futures, then economic futures, then technical futures, followed by chapters on technological possibilities and options - Radio Frequency spectrum and mobile services, cable television, computers and communications, visual telecommunications. The later chapters consider planning and economic matters, including the need for 'open planning' and the role of the Authority itself.

This said, one cannot but recognise a disjunction between what is said about social futures and options and e desirable planning processes - including some attempts at participation by the Authority and NTP themselves - and the nature of, and criteria for, planning and recommending which then follow. One discerns a lapse from social futures and purposefulness to profitability and market demand as the main framework for the planning actually proposed. This is clear in the discussion, for instance, of videophones and videoconferencing. Nor does the report grasp the thistle of central planning and socio-political purpose implied by 'communication planning' as used in Third World contexts. Rather, a necessity to make major long-term decisions about investment in a telephone system which allows or excludes many other communications options produces an economic and technological analysis for which the sociological and political framework is tacked on or partly omitted, rather than providing a central informing dimension. The likely outcome seems to be that technological choices will be made mainly by engineers working on information about likely market demand from the big-spenders - large corporations and large concentrations of population. This corresponds poorly with Australian self-concepts and preferred futures suggested both in popular wisdom or mythology and by more sophisticated analyses of the kind mentioned in chapter 3.

Social assessment is certainly mentioned in connection with the selection of new services. For instance: "the new services under discus-

sion will have varying implications for our values about growth, privacy, equality, security, humanisation, freedom and beauty, at least... People with strongly held values, either positive or negative, about growth or privacy can be expected to exert continuing and increasing pressure for or against the introduction of new services. In addition, specific services (e.g. CATV, CTV, data and mobile telephone) would appear to be especially relevant to questions of equality of access and of resource distribution... most services have implications for peoples' values and about security - both personal and organisational - since all sophisticated telecommunications systems can be seen as threatening personal and organisational security". (Telecom Australia, 1975, 127). The report does not find the Orwellian negative scenario (described as maladaptive authoritarianism/segmentation) very probable. This on the ground that, to be effective, a central source would need to control distribution, impose judgements about the nature and value of information, and control the processing and co-ordination of it. It would require massive telecommunications systems for data collection and surveillance, which would also be very vulnerable to sabotage (p. 48). Enzensberger similarly casts doubt on the 'Orwellian fantasy', partly on the ground that "blanket supervision would demand a monitor that was bigger than the system itself" (Enzensberger, 1970, 16). The Telecommunications Employees Association, however, does question the lack of answerability of Telecom in relation to privacy as well as more generally (ATEA, 1978).

We might note that technological communications threats to personal privacy are not limited to the possibilities of a centrally controlled system, although the potential from the marriage of communications and computer technology for data banks of personal information has attracted concern among a few Australian observers. A Four Corners television programme in October 1978 examined the entry into the Australian market of a lie detector claimed by its manufactorers to be infallible and already being used by some employers to screen job applicants. Such a device is the logical negation of the ideal communication arrangement, as defined by proponents of open, participative society: it represents total asymmetry of power, being entirely one way

with no feed-back, no form of recall or appeal, and indeed apparently no control over one's own communication as the input. An essay on communications technology which confined itself to the national, integrated, big system concerns of Telecom is far from complete.

The Telecom report itself cites this as one reason for not being alarmist over another 'maladaptive trend - superficiality/synoptic idealism', meaning, for instance, the view that everything could be resolved by a bigger and more complex ideal computer/communications system producing the 'wired city'. "It is NTP's belief, however, that this maladaptive trend will also not be the dominant one. The reasons for this can be seen in the plethora of non-formal information channels which have always existed and, in fact, are increasing, especially in Western society; the 'Samizdat' publishing system is an excellent example from behind the Iron Curtain" (Telecom Australia, 1975, 50). Whether such channels are indeed so numerous and actually increasing is disputable, although the 'little magazines' have been praised in Australia as compensation for the mediocrity of the mass media and the best hope for Australia's political and cultural future (Aitkin, 1978). It has been suggested as a generalisation that "the development of modern systems of communication seems to have generally had the effect of drastically reducing the number of institutions which disseminate information (Unesco, 1978b, 15). Certainly this is true in an obvious sense with newspapers in Australia, as Mayer and others have documented; the current trends in radio, which are not directly related in any significant way with technological change, are for this reason all the more interesting. When one considers, however, the web of traditional communication forms in a society like Indonesia, the reassurance of the Telecom report may seem too glib.

A response to the Telecom report by Peckover and Evans (1976), from the vantage point of Australian telecom experience but working in the same field in neighbouring 'developing' Papua New Guinea, provides relevant criticism largely in harmony with that suggested above. Peckover and Evans judged the report to be preoccupied with supplying telecommunications hardware and software, despite a superficial appearance

of seeing the role as that of a provider of communications. This hardware/software orientation is seen as historically and currently accurate both for Telecom and, previously, the APO. It is judged inappropriate for Australia's future - a change of paradigm which NTP approached but failed to carry through. 'Preoccupation with the supplier role - with technology' is evidenced by a series of examples drawn from every section of the report."Over the past twenty-five years or so, the technology of telecommunications has changed dramatically. Common equipment is now providing voice, data, telex, telegraph and other services; and new computer technology is making it very difficult to allocate part of a piece of equipment to local, long-distance or international calling" (Peckover and Evans, 1976, 21). We have then the interesting and persuasive proposition that, far from technology determining communications options, the fiscal-cum-technological thinking of those responsible for providing and managing the system is locked into earlier, largely technologically conditioned and misleading, perspectives.

The authors conclude that the Report indicates "a strong affection for the status quo and only weak proposals for change"; "we are concerned that once the debate on Telecom 2000 subsides, Telecom Australia will claim its 'soft' recommendations and general themes as a mandate, and continue with future planning along traditional lines". The structure, leaving engineering and marketing as powerful, entirely separate departments, is strongly criticised: "the Engineering Department is so large, and so powerful that it could consciously or unconsciously perpetuate the traditional technology-based approach to telecommunications planning in Australia.. It is unfortunate that Telecom 2000 did not cover this very important and very sensitive issue". Added to this, the Report favours participative open planning but makes no practical recommendations to effect it.

It is suggested that there is hostility to the concept within Telecom which would preclude it, and that the Report and NTP exercise will be treated by the technical planners as mere window dressing; "... no doubt this was a natural reaction by technocrats upon having their values and judgements questioned by persons with social science and other

backgrounds..." The apparent acceptance of the Report itself within Telecom, it is suggested, may be because no major changes are actually recommended and the APO and Telecom technocrats therefore no longer feel threatened.

It is pointed out that Telecom itself contains 'vast resources of skill and experience' which could be tapped if its organisational style changed to allow broad participation in planning decisions. The accuracy of this perception and concern is borne out by the major dispute which beset Telecom less than two years later over computerisation of the telephone system and the loss in jobs which this implied; see, for instance, the union leaflet which included a letter to the Minister for Post and Telecommunications expressing concern over "the unchecked advance and intrusion of computer technology into the lives of Australians" (ATEA, 1978). Telecom's failure to reassure its employees on this score, much less involve them in the planning process and decisions, triggered off a major public debate about communications and other technological change, especially relating to computerisation, which may prove to do more for opening up communications planning to public participation than the Telecom 2000 exercise itself. The interest relates to the employment situation and prospects rather than the communications sector per se, but this has been the focus and vehicle for the discussion, and for the beginnings of a wider and more popular questioning of modernisation and the technological process which takes little or no account of social or other than short-run economic factors. The communication sector may thus have unwittingly raised public and community awareness and set off a reaction which will curb the free run of its technologists in a way that the Telecom 2000 Report only purported to do.

David Griffiths finds Telecom 2000 a sad reflection on the inability of the NTP group to relate to differing values and assumptions "and how they misused alternative values and assumptions to give the appearance of dealing in a meaningful way with alternative values and assumptions" (Griffiths, 1976, 54). He criticises the failure to come to terms with 'grass-roots, community participation', which is held to be inherently and substantially difficult, because of the integral nature of

networks such as the telephone or telex network. Such an attitude points towards accepting technological determinism. Griffiths has four basic criticisms of the Report: the assumption that the problem of the technological society is the technology rather than how it is used to serve power interests; that the role of technology in creating and reinforcing the turbulence of 'the turbulent society' is ignored and the inevitability of technological development assumed; that the practicalities of participation and the realities of organisational and elite group manipulation are ignored; and that assumptions underlying alternative views and values are not seriously engaged. (Op. cit., 54-55).

As a footnote we might note the Report's bland reassurance about production of parts: "Australia is geographically remote from the major world telecommunications markets and manufacturers. The consequent need to ensure continuity of supplies, coupled with the desire to have the capability to modify telecommunications plant designs to match the specific needs of our networks, has led to the present structure of the telecommunications industry in Australia. The local industry features large measures of both competition and overseas ownership. Of the Commission's annual equipment requirements, 85 % (currently totalling $300 million) is manufactured locally"; which components comprise the other 15 % is not indicated. (Telecom Australia, 1975, 74).

The report acknowledges that new manufacturing capabilities will be required; with the move towards optical fibre subscriber distribution from the late 1980s; with the foreshadowed move to digital technology, both transmission and later switching; and with future moves in the terminal equipment market. While the need for attention to these areas is suggested in terms of R & D and local industrial capacity, there is no suggestion of urgency or concern. By contrast, an ABC Monday Conference programme on computerisation and its likely effects on employment in Australia pointed out that there was no computer industry in Australia, which left the country mainly dependent on overseas suppliers who would also be the beneficiaries in terms of enhanced employment opportunities. ATEA also asks whether Telecom is being manipulated by computer advocates concerned only with sales (ATEA, 1978).

This chapter does not provide a comprehensive account of attitudes, moves and prospects in relation to a national communications system and policy, but rather highlights, by means of a few examples, some of the main issues and problems. In chapter 7 we refer to the report of the Task Force on a national communications satellite system, released in September 1978, which raises other questions about the interface between social and cultural trends and options and a high-technology aspect of communications. Our examination of the telecommunications situation and of the Telecom 2000 report suggests that, despite some serious attempts to discuss social values and alternative social futures for Australia, technology and technologists still have their head in Telecom planning. This does not imply technological determinism as such, but that technology and engineers may continue to choose or exclude options from a narrow state-of-the-art perspective with merely token participation. Reaction to and curbing of this in favour of socially preferred options, if it occurs, will probably be because of concern about employment rather than about communications as such.

V I

Public broadcasting - Community access and ethnic radio

Leaving aside Telecom and similar requirements to make long-term decisions about investment in the communications infrastructure, we see that we cannot really talk about purposeful planning of a communications system in Australia. We may talk about a system but this would be in a sociological rather than a planning sense; the society evolves communications arrangements of various kinds and in various deliberate or unintentional ways which are 'functional' for the society. The function ascribed to communications, especially the mass media, in Australia by a number of writers like Connell and Griffiths is that of co-optation and repressive hegemony.

Political decisions, largely reflecting dominant social and cultural preferences, have emerged as more significant than technology in permitting or preventing different modes of communication. Although there has been considerable recent concern about the effects of television on society or, mainly, on children, this apart, the negative scenarios of 1984, The Clockwork Orange, The Private Future and - if it is negative - the wired city, have not generated much public interest or anxiety. Where there is neither clear technological domination nor a clear public policy and plan for communications it is difficult to understand how communications provision evolves and by what processes decisions are reached and change induced.

The hesitancy and lack of clear policy and purpose over radio in the period since Labout took office in 1972 to the present time well illustrates this in Australia. We reflect on this in examining developments and incidents concerning access - community and ethnic - radio. A Unesco document, observing that advertising ultimately pays for the services of the media, comments that this may produce management problems in terms of meeting public needs while remaining viable. It asks "how can the necessary capital be made to flow towards the new sectors and activities of communication and where can it be obtained?... What

may be important to recognize is that investments made or not made in the economic, social and cultural life of a society and its people". (Unesco, 1978b, 43). Griffiths empahsises the role and institutional interest in broadcasting of bodies like the ABC and the Australian Broadcasting Tribunal (as formerly the Department of the Media and also the commercial networks) and their resistance to changes threatening their hegemony. He adds that "the increasing provision of access opportunities for minority groups and the establishment of public broadcasting system for minorities is a manipulative and co-optative strategy that will legitimise and reinforce this repression and the capitalist system". (Griffith, 1976, 47).

Conceiving and implementing a policy for public access broadcasting in the laissez-faire mixed situation of Australia, with a strong commercial sector and the ABC, is not straightforward. Different interpretations may be placed upon the creation of a third sector as discussed in this chapter. Does diversification of broadcasting foster cultural diversity and affirm the identity and rights of minority groups and interests, or is it a means of co-opting and imposing integration and control?

> "In the largely multi-lingual and multi-cultural societies of Asia and Oceania, communication may be seen as having an especially important role to play - that of speeding the achievement of national integration and of a sense of national identity. While each of the linguistic and cultural sub-groups in a society may demand and deserve communication facilities... communication also needs to take on a role which is perhaps even more important in a world made up of sovereign nations - i.e. that of a cultural force which, while providing for each, can also provide for all and thereby build a climate of appreciation and understanding between the sub-groups and a feeling of oneness among all the peoples of a nation". (Unesco, 1978a, 6).

This may be simply another way of describing 'repressive hegemony'. It is pertinent to the development of ethnic radio in Australia, and to our broader question about the identity and future of Australia as in part a developing country.

Apart from the different ethnic groups which comprise Australian

society there are many other kinds of minority interest groups. One obviously relevant one, where communication are concerned, is the geographically isolated; other include religious groups, sports groups, cultural bodies and, more controversial, the many social reform groups representing socially stigmatised or disadvantaged sectors of society. Authors cited in earlier sections, like Mayer, Connell and Mc Queen, note that radio may or may not be socially significant, in that it may or may not represent alternatives giving influence or power to the disadvantaged. Thus Mayer commented that "by mid-1975, the new radio forms had arrived, but it was harder and harder to see them as very anti status quo". "Just how radical is the whole access idea? The term is elliptical - access to what, for whom, for how long, with what funding and resource support, paid for by whom, within what kind of institutional framework?". "Depending on who handles them and how, cultural claims can pose diversity and heterogeneity at public expense as a clear-cut right. Migrants, especially Asian migrants, or black or gay or children's and student's stations could challenge the basic tenet of Australian society - that of homogeneity plus 'tolerated deviance'". (Mayer, 1976, 126-8). We return to this question in discussing below the demise of 3ZZ. The 'Radio Today' paper reprinted by ACFOA in the same year suggested that radio had the potential for making institutions more responsive to needs, providing it was itself conducted in this way. Noting the exclusion of "the poor, the old, blacks, migrants and other minority groups from their own society" by what it defines as news (reaffirmation of "the normality of the middle-class ethos"), the paper suggests a number of programming possibilities including (inter alia): "political groups conducting programmes - the Combined Pensioners Association, the Australian Union of Students and the A.C.T.U. ... groups on strike - such as teachers and airline pilots - could run their own talk-back show and invite listeners to talk to them... students occupying a university building and workers occupying a factory could be put in direct contact with the public for discussion of issues ... a consumers' association could run a show providing information about goods and services". (ACFOA, 1976, 2, 8).

The role and effect of the ABC are ambivalent, and it has attrac-

ted a wide range of attitudes and observations. While the liberally inclined have taken up its cause, especially with the progressively heavy reductions to its budget and staff ceiling under the present Administration, more radical commentators, ahd those who have encountered its influence and management in the course of trying to stimulate diversity or to introduce genuinely alternative access broadcasting, have found it at the least cautious and conservative, and more generally an Establishment institution and a force for preserving the status quo. We have referred in passing to critical comment on the Commission, both structure and Commissioners, in the comparatively early and uncritical sociological reader by Davies and Encel (Op. cit., 1965, 217-222). The indirect, and occasionally direct, control of what was broadcast is spelt out, together with the very conservative 'Establishment' composition of the Commission itself. Whitlam made a number of more radical, Labour-oriented, appointments to the Commission, including a single staff-elected Commissioner. In October 1978, he and the other remaining Labour appointee, Professor Harding, completed their term. No new staff member succeeded Marius Webb, despite a public campaign and protest, and the Commission is again solidly conservative (or Liberal) in composition. This has made more obvious to the less politically knowing the political character and influence of the ABC. There have been public rallies, protests and strikes over cuts inflicted on the ABC since 1975, but as Harding observed in his retiring press interview, the ABC has been emasculated in terms of programmes and style as well as resources. Programmes like Lateline and TDT have been cut or curbed; this despite the fact that Lateline had only a modest off-peak audience. Monday Conference, which many critical viewers find irritating and vacuous, continues unchecked; Mc Queen (1977, 99-101) refers to Robert Moore's 'timid, uninformed and flippant approach', his 'bemused liberalism', making him the ABC's star interviewer, because of its preference for timitidy and light heartedness. Trivialisation, Mc Queen suggests, is the programme's theme song. Mc Queen discusses in some detail the leadership of the ABC, especially the history and connections of the short-lived Chairman Sir Henry Bland, and, by contrast, the one executive who could be described as 'any kind of a socialist', Alan Ashbolt. He documents many instances of 'politically inspired suppression', yet con-

cludes that the ABC has to be defended, as a check against a slide into general repression and as a means of employing at least some Australians producing Australian material. (Mc Queen, 1977, chapter 7).

Such tends to be the unenthusiastic tone of support for the ABC, reflecting an uneasy alliance between normally apolitical 'small liberals' and the more active reform-minded who have pressed for community access radio. Henry Mayer asks whether the ABC should and could be used as radio is used in Sweden and Finland - "in a deliberate attempt to correct bias in the social system by counter-bias, compensatory bias?" (Mayer and Nelson, 1976, 149). The principle of positive discrimination has been largely accepted in education and other welfare fields, but its only manifestation in public broadcasting has been as a largely defensive argument by some public radio stations to counter charges of left-wing bias. Thus the Canberra campus radio station 2XX, in its successful application for a community licence, stated in relation to accusations of partisanship that the station's apparent criticality of established views might reflect the fact that establishment views are readily accorded access to other outlets and so have no need or desire to use 2XX, that the station, being free, attracts those groups unable to afford commercial outlets, and that such views tend to be treated as "either deviant or frivolous and not worthy of sustained treatment" elsewhere (CCBA, 1978).

The 1977 annual report for 3CR referred to "unprecedented interference by the Federal Government in the internal affairs of the ABC, culminating in the forced closure of ABC access station, 3ZZ". On the other hand, David Griffiths, who withdrew very early from the 3ZZ planning committee when it became clear that the ABC was insisting on retaining control, charges the Commission with manipulation in the interests of bureaucratic efficiency and refers to 'the benevolent myth - the ABC art of seduction'. For him, commercial radio may be characterised as - advertising - big business - free enterprise/materialism - distraction; on the same dimensions, the ABC appears as - government (source of finance) - public bureaucracy (how controlled) - good taste/ respectability (values reflected) - elitism (objective). Griffiths warns

against the fundamental and innate antipathy of bureaucracy to community groups, something borne out by studies of other community-oriented initiatives under Labour from 1972 and the history of their administration (Griffiths, 1975). The role and perhaps the intrinsic nature of the ABC are, therefore, a complicating factor in the story of emergent community access radio, the more so since this may be defined either as a third force in radio or as a style of broadcasting which commercial and national broadcasting might adopt. Ideologically speaking, the latter is logically unacceptable to reformers for whom commercial and ABC broadcasting necessarily manifest what Marcuse calls repressive tolerance; they would merely co-opt some community leaders to the dominant society rather than affirm and strengthen cultural diversity. It would only be acceptable if it took the form of enforced change in these sectors through power changes in the whole braodcasting and, indeed, social field. The story of 3ZZ suggests that such an expectation would be unrealistic.

The hesitant and faltering encouragement of community radio by Labour through the short-lived Department of the Media (it was abolished by the succeeding conservative government and its broadcasting functions passed to Post and Telecommunications) was only one of a number of community-oriented initiatives of the same period. Others less directly pertinent to our theme included a policy of self-determination for Aborigines (including, for example, bilingual education) which has suffered the bureaucratic social control functions of the Department concerned, paralleling Griffiths' warning about the ABC. There was also some encouragement of cultural diversity and respect for immigrant communities generally, of which ethnic radio, announced by the Commissioner for Community Relations, was one example. The Social Welfare Commission administered the Australian Assistance Plan, a rather ambitious nation-wide community development project, and the Department of Urban and Regional Development (DURD) pusued a similar policy. The years immediately following the change of government have seen the demise of both the AAP and DURD. In other words, the 'arrival' of community access radio had almost nothing to do with technological innovation (although it fostered some low-cost 'appropriate technology' ingenuity among the engi-

neers of the community stations), but much to do with the values and style of the government of the day, and more particularly of the more innovative Minister and Permanent Head who ran the Department of the Media briefly in the closing months of the Labour Administration in 1975. In noting again the limited role of technology as such we need to be on the watch for technological constraints assumed or identified with the development of access radio, and new possibilities in this arena offered by technological advances.

Another initiative in the communications field of this period was the video-access centres (VACs) started as a pilot project in 1974 by the Film and Television Board of the Australian Council for the Arts and administered through the Australian Film Institute. Enzensberger alerts us to the potential significance of video (already used, for instance, in Canada for community development and consciousness-raising) in this passage: "it has long been clear from apparatus like miniature and 8 mm cine cameras, as well as the tape recorder, which are in actual fact already in the hands of the masses, that the individual, so long as he remains isolated, can become with their help at best an amateur but not a producer. Even so potent a means of production as the shortwave transmitter has been tamed in this way and reduced to a harmless and inconsequential hobby in the hands of scattered radio hams. The programmes that the isolated amateur mounts are always only bad, outdated copies of what he in any case receives". (Enzensberger, 1970, 22). We tend to think of communications (leaving aside those between machines, or between humans and machines) as either one to one (CB radio, telephone) or one to many (radio and television). The social significance of the group or community, and so of communications for self-concept, identity and mobilization, is suggested by contrast by Enzensberger, and is central to both VACs and the more coherent philosophies of community access radio.

The most important resource for community video is said to be the communities themselves, often initially hidden, unintelligible, unrecognizable. (Analogously, Asian trainee visitors to radio station 2XX in Canberra found it hard to recognise that the valuable and distinc-

tive resource was the community of volunteers manning the station and interacting with one another and with/as the different communities outside from which they were drawn). According to Emery and Abrahams, the VACs were established on the general ground that video was a technical breakthrough which made it possible for people to record experience in a visual non-conceptual way. Relaince on specialists was unnecessary; the Centres made the technology available at a time when they were not economically viable as individuals' property in the way that the transistor radio has become. Emery and Abrahams, in asking whether the VACs are economically justified, as against waiting for lower prices to lead to wider sales, observe that "the benefits of individual purchase and ownership of video... may not be the same as those generated by community access video centres", an observation congruent with Enzensberger, above. Radio innovators like the Alternative Radio Association in Melbourne would not agree that radio (contrast television and film) is different from video in necessarily suffering the intervening refining process of experts, as Emery and Abrahams assert. Indeed the rationale subsequently articulated for access radio (see for instance ACFOA, 1976) is very close to that spelt out for the VACs.

The 1974 evaluation found the Centres to be successfully teaching government departments the power and validity of video as a communications tool and helping to make it more available to the community, thus making less difficult the participation of disadvantaged groups in processes of government. More important, the VACs were held to be achieving success: in people informing public agencies about the effects of programmes on them; in people informing public agencies and other people about currently unmet social needs, potentially leading to social organisations and action. We have evidence from Aboriginal communities in North Queensland of video made available to the communities playing a significant part in community-building and mobilisation for action. It was concluded that the VACs had proved themselves by 1975, though still close to a pilot phase. It appeared, however, that they should not be exclusively video, but diversify into typing, duplicating, etc., access to such facilities being more important than ownership. We recall here Enzensberger's observation that Xerox retain ow-

nership of the most advanced and convenient copying machine at rates which ensure that it does not get into the wrong hands: "the equipment crops up as if by magic where economic and political power are concentrated" (op. cit., 1970, 17). It is emphasised that community development skills should take precedence over technical and production skills, and that the attraction of more esoteric equipment and expertise should be avoided (Emery and Abrahams, 1975, 38, 41). The relevance of this apparent digression from radio to video is the common emphasis on community, access, and demystification. The link is directly manifested in the contents of recent issues of Access Video. This includes articles and information on radio, and indeed television, from a 'committed' community access perspective, as well as about video access approaches and equipment.

We turn now to the expansion of community access radio within the political, socio-cultural and administrative context set by this and previous chapters. We have noted the creation of a Department of the Media by Labour; this implied dissatisfaction with the Australian Broadcasting Control Board (ABCB), which was responsible for licensing and regulating radio and television stations under the Broadcasting and Television Act. Conflict between Department and Board characterised the Labour period and partly explains the use of the Wireless and Telegraphy Act, which was not under the Board's jurisdiction, to offer radio licenses. Although critics like Griffiths emphasise the established (commercial or ABC) media backgrounds of senior members of the new Department it did, especially under Moss Cass and Spiegelman, raise in a more comprehensive way the question of broadcasting and communications as a policy area. Sixteen experimental licences issued under the Wireless and Telegraphy Act were due to lapse in the latter part of 1978. The Australian Tribunal (ABY), which superseded the ABCB, began hearings for applications of public broadcasting station licences then allowed for under the revised Broadcasting and Television Act, which precluded licensing under the Wireless and Telegraphy Act.

Griffiths, who constantly emphasises the ABC's self-protective stance over public broadcasting stations, traces discussions of the

idea of such stations, noting the secondary and supplementary role envisaged for them by the ABCB in its 1972 report on Frequency Modulation Broadcasting. He describes the report as conservative, cautious and compromising, concentrating on technical and procedural questions such as VHF or UHF and the cost of introducing FM, shying away from alternative ideas for content and structure, uncritical of existing arrangements and assumptions, and elitist in its own assumptions about the role and nature of public broadcasting. The report favoured introducing FM into the UHF band. This was criticised and subsequently reversed following discussion in a Senate Standing Committee reporting in 1973 and by the report of the Mc Lean inquiry the following year (Griffith's, 1976, chapter 2). Mayer comments of Labour that its record was hardly worth cheering, though it did open up some possibilities: "the fact that they seemed innovative and 'radical' while being in the very best of bourgeois traditions merely showed how crusty Australian society had become and how remote from current concerns in the field of the media both major parties were" (op. cit., 123). Griffiths observes that when Labour was dismissed in 1975, the ABC and commercial systems were even more firmly entrenched than in 1972. He summarises that disruption to the prevailing ABC-commercial hegemony was minimised; that existing broadcasters were looked to as a means of meeting the needs of the majority of minority groups (the ABC's 3ZZ, 2JJ and FM network); that the number of public broadcasting stations was minimised and the majority of such licences granted to safe, non-controversial groups; that the resultant system was inferior, cheap, ghetto-type. yet politically elitist (op. cit., 17). He cites a particularly revealing passage from an unpublished Department of the Media document which reads, in part "an alliance of educational, environmental, religious, union, women's and community groups, antagonistic to government initiatives in this area, could seriously impair the overall public receptiveness to the new and exciting services the government is providing for the benefit of the community. Further the groups that are currently antagonistic derive ironically from those which might be considered the government's traditional base of support. There is clearly a valuable public relations exercise to be conducted in this area". (Op. cit., 12).

The technical key to public community broadcasting was the avai-

lability of frequencies. This required a change of perception, or rather of political will, not a technological breakthrough: "Australia has about half as many radio stations in relation to people as has the United States... Frequency space for more AM stations through frequency sharing has always been available and this fact has been publicised by Barry Cole in the Australian Quarterly in 1965. It was a political decision not to make this clear... the 'technical people' had 'certainly always known it'... Since there was no sudden technical breakthrough, the 'discovery' of the possibility of doubling radio stations must have been made because the political and social climate permitted, if not demanded its announcement" (Mayer and Nelson, 1976, 151). Contrast the ACBC's statement in its 1972 Frequency Modulation report that "there are only 108 channels available in the AM band", and the initial preoccupation with FM. While frequency sharing provided one obvious means of multiplying radio capacity without offending the desire to preserve the valuable public commodity of air-space, the other related question which has concerned public broadcasters is transmission power. Thus 3CR Melbourne in its 1977 annual report observes that the station has not been allowed adequate power to cover the 10 mile area for which the licence is allowed. The chief engineer of 2XX expressed in October 1978 his disappointment that the station has not been allowed to increase its power of 300 watts, because of poor reception in about a third of its nominal coverage area (The Canberra Times 21.10.78). A national technical conference of PBAA resolved in 1978 that power and frequency allocations given to Public Broadcasters "have always resulted in a service markedly inferior to that predicted by the Department" (or Post and Telecommunications).

We have implied that public broadcasting, or community access and ethnic radio, the recently formed third leg of Australian radio, may represent a socially significant development in communications in Australia. It has the potential, along with video access, to enable a community, and its many sub-communities, to talk with itself, to get to know itself, and to empower itself through this medium to become more active and effective. At the same time, more politically and socially alert commentators have cast doubt on the likely effect of the develop-

ment, suggesting that the result may be further 'domestication' through co-optation of the leaders and efforts of minority groups and sub-cultures. Hesitant and grudging support for the development of the sector and the ambivalence of bodies like the ABC, the ABCT and the Department of the Media lend weight to some scepticism.

We have also indicated some confusion of categories and purposes in the different terms employed - public, community, ethnic, access broadcasting. Griffiths points out that most of the initial experimental licences were to very safe educational stations run by or from universities and other tertiary institutions. The University of Adelaide's station 5UV, run by the Adult Education Department, reflects in its 1977 annual report the different categories of use which have grown up. It observes that different educational agencies contributed programmes, often only after much badgering, whereas ethnic and access radio saw spectacular growth under the aegis of the Ethnic Broadcasters' Incorporated co-operative. During the year, broadcasting by nine groups for ten hours a week expanded to 34 hours among 23 groups; it was agreed to allocate the co-operative 46 hours a week in 1978. A further 10 hours of access radio was allocated to Student Radio, breaking the previous 2:1 formula of 5UV's own programmes to access time (54:44). "However, the maintenance of 5UV programmes and access in separate program blocs has helped diminish any adverse effect on the 'educational character' of 5UV which its licence demands"; the financial contributions were also useful (University of Adelaide, 1978, 17).

An experimental educational licence under the Wireless and Telegraphy Act was granted to another campus radio station, Radio ANU, which became the Canberra station 2XX. 2XX tended to shift from calling itself campus to community radio, although the formal title of the body, which applied successfully for Canberra's one public licence under the new scheme of licensing in 1978, was called Campus Community Broadcasting Association Inc. (CCBA). By a quirk of official classification (described in one press report as 'a bizarre piece of red tape'), only an AM licence was made available for Canberra because of its classification 'in broadcasting law' as not a metropolis; had it a general post

office it would have qualified for an FM licence also. Again, the constraint is neither technology nor cost, but regulation through legislation. In its licence application dated May 1978, CCBA identified two kinds of need and interest: audience and user. The latter are classified as: 'pure access' (groups talking to their own members); 'particular use' (groups seeking to communicate to the broader community); 'community information'; and 'broadcasting enthusiasts' - those wishing to learn and experiment with the medium itself. This last group comprised the core on-air staff. CCBA sought to facilitate broadcasting of: issues/educational programmes; music/arts programmes; community information programmes; non-English and bilingual programmes; and 'pure access programmes' for specialised interest groups. Up to three hours a day would be allocated for this last category. As to the 'broadcasting enthusiasts', the volunteers on whom the station heavily relied, CCBA acknowledged that there was some criticism of amateurishness, of the 'indulgence' of some announcers, but emphasised the importance of catering for this need and for offering training opportunities as well as insisting on performance guidelines. A balance was sought between informality as a virtue and amateurism as a fault, between relaxed style and sloppiness.

In its required 'promise of performance' CCBA undertook among other things to develop policies and programmes according to the views and opinions of the listening community, to foster community awareness of the station's role and potential, to maximise access and provide guidance to those seeking it, to favour Australian content, with a target by the end of 1979 of at least 30 % of its music by Australian artists, to refuse sexist or racist broadcasting, to encourage and assist children to make their own programmes, and to present diverse and provocative viewpoints but with sensitivity as to presentation and scheduling. The submission, while attempting to explain and, in part, rationalise charges of partisanship, asserted its right to guide and determine each case on its merits, to allow all segments of the community so desiring to express their points of view, and not to tie itself to the ABC and commercial formula of presenting all sides of controversial questions within the one programme. Summarising 'what the Canberra community thinks

of 2XX' from various kinds of survey and other feedback, the submission concludes that "the station cannot be mistaken with any other broadcasting in Canberra, in either style or presentation or programming. Such diversity is not a bad sta: (CBAA, 1978).

Like 5UV, 2XX allocates airspace to ethnic community groups, and incidentally derives useful revenue in the process. Normally each ethnic group is allocated one half hour for broadcasting in its own language each week. Such programmes must conform to the same general standards and requirements, and an English translation of the script can be required in advance. However, "transcripts and translations are required only when matters of dispute or complaint arise. We believe that broadcasters in non-English languages are in no way less responsible than English language broadcasters; English language broadcasters are not normally required to present scripts before or after a programme; the same should apply to our non-English broadcasters" (CBAA, 1978). By contrast, 3CR's 1977 report states as its policy that "programs in languages other than the national language should provide English translations so that English speakers can understand the programs as well. The programs should take the form of short alternating segments in the two languages". 3CR lists far fewer groups using this facility than 5UV or 2XX; it also reports that "support for the programmes has come initially from migrant welfare and cultural groups and from local municipal councils".

The political sensitivity of ethnic radio becomes more clear when we turn in a moment to the story of 3ZZ, noting the tendency for Government to exercise close control over it while defining such broadcasting as a distinct fourth secotr through the Special Broadcasting Service. Ethnic radio could thus be split off from community public broadcasters and its access character further diminished. The issue reflects an ambivalence over Australian identity as between homogeneity, with emphasis in assimilation of migrant groups, and cultural pluralism and diversity. Officially Australia has chosen the latter path, as reflected also in the bilingual programme in some Aboriginal schools. This is not to deny the continuation of discrimination against non-English speaking

groups, ranging from covert continuation of 'white Australia' control devices and community attitudes through to resolutions of the 1977 conference of the 'Returned Servicemen's League in Adelaide against ethnic radio and for insistence on monolingualism. The ethnic broadcasting question well illustrates the way that public radio could be either 'liberating' or 'repressive' for minority groups and so contribute to reinforcing one or another identity and possible future for Australia itself. We note again the irrelevance of technological innovation, in any significant sense, to this question.

The Melbourne station 3CR was granted a five-year licence (through the Community Radio Federation Limited) with effect from mid-76. Its application emphasised as principles the encouragement of community participation with training to facilitate this, and providing "a voice for those denied access to the mass media, parcicularly the working class, women, aborigines and the many community groups discriminated against by the mass media. Under cross-examination it was made clear that the aim of the Federation was to actively discriminate in favour of Australian artist and composers, and Australian aspirations". (CRFL, 1978). The report comments on increased Government control of radio, especially the forced closure of its sister Melbourne station, the ABC's 3ZZ. It criticises the 1977 Special Services legislation as potentially enabling Government to extend direct control over sections of public broadcasting and over the educational broadcasting of the ABC, although at the time it applied only to ethnic broadcasting, and especially to 3EA Melbourne and 2EA Sydney.

We consider now in some detail the brief history and demise of the access radio station 3ZZ which was closed by the ABC on instruction from Government in July 1977, on the ground that it was an experimental station and that the experiment need not continue, also that it was substantially providing ethnic broadcasting and was a duplication of a community service. The case study highlights several of our key themes: the meaning of and distinction (if any) between access and ethnic radio; the role of the ABC and of political and bureaucratic factors; the

alternative models for such public broadcasting and the different social functions which the same medium can play, depending how it is handled and directed. Information here is especially from tapes of three lengthy interviews with key actors in the situation: David Griffiths, Chairman of the Alternative Radio Association (ARA), George Zangalis, first Chairman of the 3ZZ Community Group and executive member, and Alix Butler, Co-ordinator of 3ZZ, an original member of the Access Radio Unit and Senior Producer before becoming Co-ordinator until the station was forcibly closed down in July 1977, little more than two years after it started broadcasting in May 1975.

3ZZ was one of two stations announced at the same time by the ABC, the other being the rock station 2JJ in Sydney. Although announced as an access station it was retained in the ABC sector. The Chairman of ARA tells how that Association gained access to the preparatory meetings called by the ABC and describes basic differences about management from the outset. The ABC was seen as secretive and manipulative. It retained control of the station and a segment of the planning Committee withdrew when it became clear that this control was to be retained; others took the pragmatic view that it was better to compromise on this and get on with the job. Many such persons, both community representatives and ABC staff working on the station, later judged Griffiths' stand to have been correct.

At the time it started up, for all that control rested with the ABC, the station was seen both from within the ABC and by informed community leaders like Zangalis as unique in the world; other stations have subsequently developed on similar lines, in Canada and Great Britain, for example. It was seen as a bold step and a courageous development which incidentally, because of its popularity and ratings, generated strong indirect support for the ABC itself. At the same time, Zangalis and others, in observing that the station could not but be multilingual, given the enthusiasm to participate of different ethnic groups, found also that senior ABC management was unable to accept the idea of other than a monolingual and monocultural society; the media should be used only in support of this concept. Butler commented on the commitment

and dedication of ABC staff working on the station. They tended, however, because of their involvement to become cut off from and uninfluential vis-a-vis the senior management of the ABC itself. Many continued working overtime and in their own time to try to sustain the station and some resigned from the ABC when the station was closed.

The important trend in staffing was the tendency for a third group to emerge in addition to the salaried staff of the ABC and the unpaid workers making programmes: salaried personnel of other organisations who were expected to use the station as part of their normal duties. This number might have gone up with a gradual run-down of ABC staff, had the station been allowed to survive. Griffiths points out, however, that the initial mistake (according to his perspective) was the fatal one - allowing the ABC to retain real control and leaving the community in a consultative relationship, so that the station's very success made it vulnerable to political interference.

The closure of the station need not detain us long. It has been pointed out that its opening also represented an act of political interference, since the Labour Administration foist this and the Sydney rock station on a reluctant ABC. Its closure was an act of interference by the successor conservative Administration, and one which some in the station expected from the time that it appeared Labour might lose office. The closure took place, as David Griffiths points out in the pamphlet Free Speech and 3ZZ, under the Broadcasting and Television Act circumscription of the Commission's independence: "the Commission shall not expend any monies otherwise than in accordance with the estimates of expenditure approved by the Treasurer". The Commission's new budget had the item for 3ZZ explicitly excluded. The Minister for Post and Telecommunications first declined to comment on the ground that it was a matter for the ABC, then announced that funding had been terminated as from that financial year (a Cabinet decision communicated to the Treasury), then told the ABC in July that the Government would not reconsider its decision. The quite massive community response and protest against the closure was ineffectual. It included rallies of several thousand people and a decision by 20 unions, including the Telecommu-

nications Employees Association, not to close the station. The physical closure in mid-July was effected via a lock-out by plain-clothes police when most of the supporters were away from the station at a rally in its support.

A facts leaflet by the 3ZZ Planning Assembly which sought to have the decision reversed after the closure pointed out that 3ZZ accounted for only .025 % of the Commission budget; also "that the government has constantly disregarded the difference between 3ZZ - a multilingual ACCESS radio station, and 3EA - a oneway ethnic radio service". "3ZZ allowed all groups and individuals in the Melbourne community to make and broadcast programmes in the language of their choice. No-one was ever denied air time on 3ZZ". "3ZZ devoted 36 % of its air time to English language programmes. The rest of the time was divided between 28 other languages..." Commenting on Government hostility to the ABC and the previous cuts to its budget, the pamphlet observed that the Commission conspired in its own demise by accepting that it had only qualified independence instead of reallocating resource within its budget to keep the station going; "the Government has therefore been successful in removing from the ABC its traditional freedom to control its own programmes. It has also become the first Australian Government to close a radio station during peace time".

The specific ground for closure was that this was an experimental station, and that the experiment was no longer necessary. There was no public evaluation procedure, but nor was the station able to follow 3CR and achieve a five-year licence under the Broadcasting and Television Act, thus securing it a specific period of protection. In Free Speech and 3ZZ Griffiths writes of the criticism that it had developed substantially into ethnic broadcasting: "although a play on words, this is quite true. But, this simply proves that ethnic groups and individuals are most in need of access. The determining factor to 3ZZ access is minority status and not ethnic background". "... 3ZZ does not duplicate 3EZ. 3ZZ is an access station whereas 3EA is not, but rather provides a quasi-professionalism and access that is not substantially different from the kind of access provided by commercial and mainstream

ABC radio except for ethnic groups rather than 'white Anglo-Saxon protestants'". In Griffiths' view "the central strategy of the government is to reverse the development of what is perceived to be left-wing control over the media and intimidate the further development of free speech". He was also consistently critical of the exclusion from 3ZZ by the ABC political groups, unions and business - "the distinction between 'individual', 'community', and 'political' is, of course, an unreal distinction, but which has the effect of excluding groups who are consciously, deliberately and explicitly political - groups aware of their own politicisation".

If it is accepted that the closure was political - and one would be hard pressed to avoid this from any close examination of the story - the question arises why it was worth the public hostility to take such a step. An answer is provided by an examination of the kind of programming provided, and a comparison of this with the traditional style and role of the media as analysed by Mc Queen, Connell and others - to reflect back to middle-class society self-affirming images of itself while denying such affirmation to other groups and interests such as the poor, blacks and other minority or deviant sub-cultures. Among these is included the blue-collar working class. George Zangalis maintains that no migrant could confuse 3ZZ with 3EA, because of the close government surveillance of the latter, closer than of any other station. There was no real access to 3EA and no talk on current topical issues; "they wanted only 'his master's voice' and one-way transmission". Government used 3EA to tell migrants what to do and what to think; 3ZZ was the reverse, for ethnic and other groups used it to speak to one another and to the Government. No one involved, according to Zangalis, accepted the presented reasons for the closure.

Zangalis emphasised that non-English speaking groups are in the main workers rather than the middle class; inevitably, therefore, 3ZZ was more a working-class station. ABC staff at the station and the Committees provided access channels for community groups to make their own communications, but did not do it for them. There was nothing else similar in Australia at the time or since, especially in its closeness to

the problems of migrant workers. Conflict areas in labour and community relations were exposed. Inevitably this attacked those in power, attracting the charge of being left-wing. However Zangalis, like all others involved, strongly asserts that - some initial errors and learning pains apart - the station provided access to all and excluded no-one; its closure was a result of its very success. The station was in the habit of taking specific issues as well as general matters - subjects like social welfare, safety on the job, discrimination agains migrant workers, workers' compensation legislation. Thus the station informed people about their rights, and in the process shifted the power balance between them and their employees. Yet Zangalis points out that the RSL and the police association were among those cabling their support for the station. Support was widespread and massive: in all 38 different language groups brought together. This was an important social and political phenomenon, in contrast to emnity and division among these disadvantaged groups, arising from misrepresentation and stereotyping. It was a manifestation of Australian multiculturalism. At the community elections for the Greek 3ZZ Committee, for instance, some 5,000 people voted, the highest vote for any Greek Committee in their community. Something of the order of 3,000 Maltese and 4,000 Arabs were similarly involved. This created a new dimension to community participation and a potential for mobilisation and action, the import of which could scarcely have been lost on those in power.

Alix Butler adds to these observations the comment that many migrant participants in the station and witnesses of its closure, who were deeply moved and shaken by the latter, found themselves recalling experiences from their countries of origin of totalitarian State operations. The event itself fostered further politicisation and community development in the sense that it forced debate among these groups about the alternatives of taking a stand through civil disobedience over small rights like access radio in order to protect the bigger rights which get destroyed later, as against not disobeying the law except in the most extreme circumstances. Butler's view is that the experience of 3ZZ is not lost, but disseminated into other forms of communication, both stations like 3CR, which became more politicised through the ZZ expe-

rience, and 3RMT-FM (now 3RRR-FM), and also into journals, the ethnic press and other protest and participation movements. Consonant with this impression is Griffiths' assertion that the (lost) battle for 3 ZZ was also a fight for "2JJ, the public broadcasting movement generally and 3CR in particular, and minority newspapers and magazines". Tribune, on August 10th, 1977, also emphasised the class/power dimensions in quoting community leaders on the station's importance as working-class in orientation: "3ZZ reflected the social and political views of workers and also... the multilingual character of the Australian working class... it was because of this orientation towards working people that Fraser was so intent on closing the station down". Tribune, the best known voice of the political left, went on to emphasise that the proposed Ethnic Broadcasting Commission would explicitly exclude community participation.

This case study, which attracted great publicity and protest nationally as well as in Melbourne and remained a live issue and source of resentment demonstrates the interlocking of political and cultural questions, questions about the identity and future of Australia. Technology plays a quite insignificant role in the story, although it is not irrelevant to the question of public broadcasting and access radio generally. First, the availability of low cost easy-to-use equipment is important if "the mystique of broadcasting and professional broadcasters" is to be exposed to public scrutiny and evaluation, as Griffiths claims for 3ZZ. The 2XX submission for a community licence identified a significant proportion of its equipment which was designed and constructed by the station staf f itself. It has been pointed out that the division of responsibility which existed between the authority allocating frequencies and that which grants licences served to obscure the situation: licences might be refused on the ground that frequencies were not available when this was in fact technically speaking unconvincing. Again, we must acknowledge that the determining factor is political rather than technical, although it is a question in the technical arena.

Access radio emerged in Australia rather suddenly. The alternative

radio group (ARA) criticised the sudden expansion of services thus: "there has been inadequate discussion by a priviledged few and inadequate opportunities by the manu; the forced pace of decision-making is manipulating people into accepting de facto situations, and most people are unable to understand the issues and the alternatives" (Griffiths, 1975). We have seen many examples of its political character. A debate in the Senate in May 1978 resulted from the right-wing Senator Harradine's attack on radio 2XX close to the time of its licence submission. The opposing applicant for a licence was popularly understood to be the candidate of the conservative Country Party. The interweaving of politics and technical matters appeared again when the public hearing for the Canberra station commenced before the Tribunal in July. The representative of the Federation of Radio Broadcasters (FARB), the commercial radio stations, while avoiding directly taking a position on the specific application, concentrated on both legal and technical considerations as ways of seeking to constrain the scope and potential of public broadcasting to compete with commercial radio. One strategem was to assert aht commercial radio allocated four million dollars' worth of free time to ethnic community groups, the implication being that the need was well met; cross-questioning by the Chairman showed that this included "ethnic, religious, educational institutions and community groups". The spokesman then emphasised that the electromagnetic spectrum was a scarce public utility and a national resource which should not lightly be made available. In this and other ways legal and technical matters were brought forward to suggest that any extension of broadcasting into the public broadcasting, community access sector should be under the most rigid control and scrutiny, and in such a way as not to disturb or disadvantage the present provision on future potential of commercial radio. Just as access radio, and most dramatically 3ZZ, threatened the status quo and was removed, so FARB, representing existing powerful commercial interests, took the status quo as the unquestioned desirable order of things and wielded technical and other arguments against its disruption.

We move now from an area where participation and access are obviously paramount, and technology modest and of limited significance

in decision-making, except as an excuse or rationalisation, to one where at least on the face of it this situation is completely reversed, satellite communication.

V I I

An Australian communications satellite system?

Satellites are the most prominent and popularly known form of very advanced communication technology. Their contribution to reducing distance for television transmission of events in other parts of the world may have made more impression on Australians than on television viewers in less remote countries. At the same time their very mystique may constitute an obstacle to their future use and adaptation to the particular circumstances and requirements of Australia. Public information about, and the demystification of, satellites has emerged as an important permeating theme in discussions of a possible national satellite system for Australia.

We are again concerned in this chapter with the question what kind of Australia will satellite technology foster; who determines its sociocultural consequences, in so far as these are considered and controlled at all; and the role of technology itself as distinct from the interwoven question of economic and fiscal calculations in the short and long term related to investment in one or other variant of satellite technology. These in turn, as with public radio broadcasting, shade into social and political choices and decisions. We need to note in this chapter arguments about ownership, control and the sharing of costs, the relative merit of investing in a costly satellite compared with more or less numerous and costly ground stations, the needs and technological/financial implications of remote areas and of other not necessarily geographically remote minorities, the relative merits of audio and visual, radio and television, receive-only and receive-and-transmit, governmental, commercial and public usage, the balance of national versus regional and local production and transmission. As with the terrestrial operations of Telecom Australia we may note that, while the needs of remote populations - the Australian outback - have received some public attention as well as much attention within the Task Force report (see below), the main public interest and concern is with possible effects on unemployment. Throughout, as in previous sections, we are forced to recognise

the interactive character of planning and decision-making and the difficulty of assigning causality or primacy to technology (often translated as financial rather than purely technological considerations) as distinct from national priorities and values, only some of which can be quantified and subjected to cost-benefit analysis, in the social, cultural, political and quality-of-life spheres. Finally, consideration of satellite communications brings us closer to comparison with 'traditional' or 'developing' societies like Indonesia. Indonesia's lead over Australia in the satellite field reminds us of the limitations of such categorisations as modern-traditional, where leap-frogging with rapid introduction of state-of-the-art technology is possible. Comparison is suggested also in more subtle senses, as we ask what the impact of this form of technology might be on Australia, and are reminded of the ambiguities about Australia's identity and future discussed in chapter 3, and implications of mass communications for these, in chapter 4.

Official interest in an Australian satellite system dates back more than a decade; the Australian Post Office began a study in 1972 into technical feasibility, likely use and economic viability which continued with advancing technology and experience, but concluded (in a Telecom report in 1977) that a quantitative economic case could not yet be established to justify a national system. An A.P.O. spokesman at a U.N. satellite meeting in India in 1972 reported that the Post Office had been studying satellite developments for the past six years. He mentioned six possible uses: telephone trunk relay; television relay; television conference services; (especially high speed) data relay; telephone services to remote subscribers; and educational services to remote areas. While these last two uses reflect the continuing Australian concern with the outback, it is noticeable that remote areas did not emerge as so prominent a consideration across the field of possible applications as in the Task Force report (APO, 1973).

In 1977, a report by Donald Bond, commissioned by the commercial television company Television Corporation Limited (now Publishing and Broadcasting Limited), was submitted to the federal Government. In the words of Ian Moffitt (The Bulletin, February 21st, 1978) this was a plan

"to blanket Australia with a top-quality color TV system based on two orbitting satellites". The same issue of The Bulletin carried a report that color TV sales seemed to have approached saturation: penetration having reached 50 % of Australian homes and appeared to have flattened out at least in present economic circumstances. In November 1977, the satellite Task Force was created by the then Minister for Post and Telecommunications. Its report was published in July and made publicly available two months later.

Although little time was allowed for submission (see for instance Deacon, 1978a), the report lists sources of 159 submissions. The complexity of this high technology area makes public participation in decision-making a difficult matter, and produces some ambiguity among those in the field who might favour participation in principle (see also Telecom 2000, as discussed in chapter 5). The Task Force report, partly perhaps because its membership was not exclusively from the communications technology field, is in fact a document easily comprehended by the non-specialist. Nonetheless, the mystique surrounding satellites means that a considerable period of public familiarisation and trialling will be necessary before it is clear how potential Australian users might respond to the prospect, and indeed what the range of uses and users might be. Such experimentation and familiarisation thus logically precedes a decision to adopt any particular technological model or mix, the economic viability of which will rest in part with experience of the system itself. The report lays considerable emphasis on the need for public discussion and, so far as possible, familiarisation. The scope and complexity of the task were indicated in a press report by the Chairman, who is also general manager of the Overseas Telecommunications Commission: "it is not a question of what is good for radio and television, said White, it is what is good for the country as a whole - a full range of sociological issues, very difficult to quantify in terms of money, such as the possible effects on population-drift, improvement of ways of life... He placed an early estimate of cost, including ground installations, at between $ 200-300 million" (The Bulletin, 21st February, 1978). He also remarked, in accord with the observations above about participation, that "whatever we recommend, I'm

quite sure it will have a built in need for a dialogue with the community".

The Task Force terms of reference required evaluation of social, economic, technical, policy and other issues, especially the potential for high-quality radio, television and other telecommunication services to all Australians, services like health, education, science and transport, defence, the private sector, and implications for existing infrastructure and services. It was asked to prepare scenarious both for a replay-type service with point-to-point distribution and for a broadcasting service direct into individual homes. With one dissenting voice (the Department of Finance member, on the ground that such a development was not economically justified), the Task Force recommended the introduction of a national system, with necessary steps being taken as soon as possible. These included a national satellites commission with overall responsibility for planning, developing, marketing and operating the space segment, preceded by an interim commission. The earth stations should be owned both by users, consortia of users, and the new commision itself. Implications for the licensing of new television stations are noted, including possible relaxation of present restrictions on ownership to attract services to less heavily populated areas. While direct broadcasting into homes generally "would be impracticable at the present state of technological development and premature in respect of the readiness of the broadcasting industry to accommodate it in a comprehensive way", a Direct Broadcasting Service is recommended, using a limited number of high-powered transponders in the satellite to provide "the national television and radio services to isolated communities and homesteads beyond the range of coverage to terrestrial broadcasting services" (Task Force, 1978, xv). Special Defence transporters should also be considered, together with trials for health care, education and general welfare applications especially for the geographically remote. The final recommendations relate specifically also to trials and to the need for a period for public consideration of the report before a decision for a national satellite communication system is finally taken. A lead time of 6 to 6½ years is visualised from a possible Government decision early in 1979 to having a system of operational in 1985.

"It is almost trite to say that satellite communications are paced by institutional arrangements - not by technology. However, it is true". (Wheelon, 1977). Wheelon concluded, in a discussion of satellite communications for public service (community service to use the more familiar term in Australia), that technology "responds magnificently to user needs once appropriate institutional arrangements are made". The problem was defining the service, aggreagating and reconciling requirements, identifying appropriate funding and planning for operations. Financing as such, he did not see as an obstacle in the United States situation; federal government, however, appeared to suffer some conflict of role as between organising and its traditional user and regulator roles. The Task Force set out to demonstrate the range of technical system options which existed to meet prospective user requirements rather than make a final recommendation: "the user requirements will be dynamic, and can be expected to grow and increase in variety, with time. In particular, uses not currently identified or even envisaged may emerge as users and potential users develop an appreciation of the capability of a satellite system". The short-life-time of a typical satellite (about eight years) allowed for rapid adaptation to new needs and applications as these emerged. Meanwhile "it is difficult to address adequately the question of applications for a relatively new and still developing technology in the absence of information on the present and forecast state-of-the-art in technological terms. Equally, it is difficult to address the application of technology in the absence of information on the uses which might be made of that technology". The report also observed of its terms of reference which included social, economic, technical, policy and other issues: "since there are few ramifications of our national life which would not be touched to a greater or lesser degree by the introduction of a national communication satellite system, if taken literally this would impose upon the Task Force an exercise of almost immeasurable magnitude". The Task Force, as we ourselves in this essay on communications technology generally, therefore chose to comment on what they judged might be the most salient and significant aspects. (Task Force, 1978, 89, 40, 74).

There is an immense diversity of possible applications for satellite

communication technology. Its impact upon society depends less on its introduction than on the particular applications to which it is put. This includes, however, major technological factors, particularly the size and power of the satellite and its transponders, and the twinned questions of the size and cost of terrestrial receivers. At one extreme satellites may represent extreme concentration of communication power in the hands of government or major commercial users; at the other extreme a publicly owned satellite with powerful transmission and many receivers might, depending on its management and dedication, represent a reduction in the present unequal distribution of the capacity to communicate. Satellite-based communication may also be unequal in the sense of fostering one-to-many communications - government and major commercial interests together monopolising the right to communicate to a purely recipient population defined uniformly as consumers of information and entertainment. A different philosophy and technology would maximise the number of communicators in the system with capacity to transmit as well as receive, producing greater symmetry between communicators. This might apply to mass media applications of the technology - forms of radio versus television - as well as to individualised usage in the form of telephone and other personal uses and social service applications, especially health and education to remote and other specialised or isolated communities and groups.

The Task Force report, while defining certain theoretical options, especially direct (to home) broadcasting, as not at present feasible - strictly speaking on financial or policy/financial rather than technological grounds - also makes clear that present technological and financial considerations allow very different applications and mixes of application. The choice is one of philosophy and policy rather than technology. We have seen that the Finance member of the Task Force disagreed with the very principle of establishing a satellite system (in line with the A.P.O. and Telecom conclusion); here a mix of social and economic judgements about priority for Australia masquerades as an essentially economic judgement. The report itself reflects the necessarily mixed and indeed partly subjective character of such a judgement in its considerable attention to the difficulties of remote outback small commu-

nities and homesteads. While it refers to economic and social considerations - the desirability of reducing the drift to the cities, of fostering Australian mining industry, most of it in very remote locations, and of supporting Aboriginal communities in their quest for more traditional lifestyle through the homeland or outstation movement - no attempt is made to quantify these values. Where costs rise dramatically - notably where one considers direct broadcasts and other services to individual remote homesteads and not merely to remote communities - the report merely notes the cost implications and the implied level of subsidy: "well beyond anything previously accepted by Telecom". Our own analysis casts substantial doubt on the cost calculations of the Task Force here. Similar judgements about what is important to Australian culture and national identity are implied in what the report has to say about national and regional production and distribution, especially of television programmes.

One basic technological choice concerns the capacity of the satellite or satellites (the report visualises two in position with a third in reserve). The prospect of a Space Transportation System (STS), in place of the present Expendable Launch Vehicles (ELVs), a few years hence makes it feasible to consider a wider range of technological options at costs which can still be contemplated. Australia's delayed entry into this field might thus open up possibilities precluded for economic reasons hitherto. A related question concerns the amount invested in the satellite in terms of high-powered transmission compared with the higher or lower cost of terrestrial receivers. Deacon for PBAA has argued that a saving of 100 dollars for each of perhaps one million potential users in Australia would justify spending an additional one hundred million dollars on the space segment (Deacon, 1978a, b). One uncertainty here related to the economies of scale which might occur if such a model is adopted and small commercial, community and individual users are encouraged to become a market for receivers. There is circularity because the potential need and market will only be stimulated by opportunities for experience of relevant satellite communication possibilities. Yet investment in the space segment is a major initial decision defining parameters for what a satellite system might afford, and con-

sequently its likely impact, for better or worse, on Australian society. The Task Force comes down for an intermediate position, favouring considerable attention to the needs of remote communities but stopping short of a direct broadcast to home service.

The Task Force draws a good deal on the experience of other countries suffering distance and isolation of minorities; that these considerations early brought USSR and Canada into the field and more recently Indonesia with its PALAPA system, which came into operation in 1976. Bystrom remarks on the need for light technology and small low-cost satellite ground terminals, observing that with exclusive reliance on communication technology designed to interconnect large urban centres most of the world will continue to be remote. The demonstration through the Indian SITE experiment of the capability of a system using very small, inexpensive receivers seems to have made some impact on interested groups in Australia. In Australia, unlike its Asian neighbours, the majority of the population is not rural, although non-metropolitan areas are important economically in what remains principally a primary producer of agricultural products and minerals. The Task Force notes that in television, as in radio, Australia has a large coverage by population, but large parts of Australia are not reached: 96.5 % of the population is within existing areas, leaving an unserved population of 490,000 people. Adding on the needs of viewers with poor reception, the population in need in terms of television is about 1.4 million, ten per cent of Australians. One hundred and twenty thousand people "cannot expect to obtain any type of television service by terrestrial meana within the foreseeable future" (Task Force, 1978, 45). This is translated as some 60,000 homesteads and small communities, including mining and construction camps, oil rigs, single family homesteads, established mining centres and Aboriginal communities.

In terms of Telecom (as distinct from radio and television) services, there are 10-12,000 people in 3,000 remote homesteads, 30-40 Aboriginal communities with a population of some 24,500 and 2,500 people in mining centres, a total of around 40,000 people beyond the reach of a terrestrial telephone network still in at least 1985. A satellite

service to them could include as well as a basic telephone service and any modern attachments such as low speed facsimile, a more reliable School of the Air service, an immediate medical information service and indirectly improved welfare services. An additional low-powered transponder would be required by Telecom for this purpose, together with terrestrial equipment calculated in the report as costing some $ 30,000 per location. Such stations could receive radio and television also. The report points out that for the 3,000 isolated homesteads the cost of such facilities cannot be recovered and cannot be a commercial consideration (Task Force, 56-7).

While Australia's tradition - the mythology of the outback which is alternately exploited and parodied in its television, film and other media - has undoubtedly encouraged a good hearing for the needs of remote communities in the satellite inquiry, a hearing likely to be sustained because of the politically influential position of the Country Party, other kinds of minority and non-commercial users fare less well. We considered in some detail in earlier sections the multi-cultural and multilingual character of modern Australia, noting the ambivalence towards this, for instance, over ethnic radio. The idea of small inexpensive terminals such as rooftop antenna ground stations is raised but not strongly supported in the Task Force report, for a mixture of economic and policy reasons. The claims of public broadcasting were not thought sufficient to contribute to the initial definition of capacity requirements, partly because the existence of the ABC and its services was held to constrain the role of public broadcasting compared with its scope in the United States. Discussing the broadcasting option, and the idea of simple earth stations marketing for $ 200-300 each, the Task Force concludes that a first generation Australian satellite, while meeting a diversity of communication needs, should not seek to provide Australia-wide high-powered direct broadcasting. On the other hand, two or even three 100-watt transponders in a first generation multi-purpose satellite for receivers at a cost of perhaps $ 1,000 each might be justified for remote area services only (Task Force, 1978, 55, 43).

This would tend to preclude the non-commercial, educational, pro-

fessional and social welfare activities subsumed in the United States under the Public Service Satellite Consortium (PSSC), inasmuch as these tend to be located in the main centres of population. PSSC seeks to develop and test systems for future commercial applications, reducing the risk factor for commercial ventures. It acts also as a lobby to secure satellite communication resources for the public service or non-commercial sector. The public broadcasting interest group PBAA brought the PSSC purposes and operation to the attention of the Task Force, arguing for similar technical and financial developments in Australia. Here the technological/economic constraint, albeit as a policy decision, becomes most clear, and the alternative implications for Australian socio-cultural options most obvious. Restricting the use of high-powered transponders to geographically remote populations only would compensate for the disadvantage suffered by such populations and possibly have great significance over time for the rural, compared with metropolitan, identity of Australia, as well economically for the viability and expansion of mining and agricultural enterprises, and in terms of the prospects for real choice for tribally oriented Aboriginal communities. If, however, this means keeping people in the bush of remote mining communities by bringing them metropolitan commercial colour television, one must ask how far this represents diversity of culture and life-style, and how much, rather, replication of homogeneous metropolitan culture and life-style within 'micro-metropolises' in the bush. The latter, being compensatory rather than affirmative, implies a more uniform Australian community than the former; its main value would appear to be the economic one of creating more stable rural and mining communities.

The more ambitious approach to direct broadcasting, which stops short of direct transmission to every home, is to bring earth stations within financial reach of professional groups and minority interests throughout Australia. This implies a more plural, diverse Australian community reflected in multinodality and a multiplication of active users - transmitters - of a satellite communication system: different kinds of communities talking to one another in harmony with the philosophy of community of the public radio broadcasters (see for instance ACFOA, 1976, Deacon, 1978a, b). Deacon on behalf of PBAA argued before

the Task Force (in their submission): "specific communications satellite users have particular needs based on their role in society. These needs include access to information about the provision of social services (health care, education, employment) and rapid access to important new developments within their special interest (women's issues, community development, environmental concerns and migrant worker information and health services). In addition, it is essential to provide training and continuing education programmes to populations in need of a communication system as a replacement for immobility due to either personal situation or lack of easily accessible transportation systems. These groups include the elderly, the handicapped, the poor, those spread out in rural areas or the outback, temporary remote mining camps, and women trapped at home with young children". (Deacon, 1978a, 38). To these obvious categories of 'need' might be added professionals away from metropolitan centres in need of continuing education - lawyers, teachers, pharmacists, doctors and others. For such groups, and individuals, institutional or community centre rooftop equipment might represent a viable option.

Cross-questioned about this before the inquiry, Deacon answered the challenge of elitist minority services at the expense of commercial interests or a Telecom subsidy by reference to the nature of 'the public'. The public was not a monolithic mass but "a whole group of small minorities and these small minorities make up the whole population"; one should think not of the average but of an aggregation of minorities. "I would like you not just to consider the problems of rural and remote areas as if they were a special case but rather to consider the audience as a dispersed audience and try to provide equal access to satellite opportunities for everyone in Australia including those in Sydney... and Tennant Creek on the same basis. I don't think it is any good saying that part of the system is only good for about 3-5 % of the population in remote areas. There are disadvantaged people in capital cities. For example, in correctional institutions or the home-bound sick who are isolated in many ways from the best in education and social services that could be provided by a satellite service". (Task Force, transcript, 1978).

At the other extreme is a model for satellite usage concentrating on commercial colour television. It will be recalled that the Task Force was set up following the Bond report commissioned by Mr. Kerry Packer's company Publishing and Broadcasting Limited, which wants use of a satellite system "to introduce an American-style networking system which would enable Channel Nine programmes to be beamed to almost every part of the country. A big advantage would be the cheapness and efficiency in flashing Packer's sporting spectaculars such as World Series Cricket from coast to coast. His company's executives claim the cost of satellite could be as low as one-fifth the cost by cables" (Milliken, 1978). According to the same article, the Packer organisation "also has a stake in an international consortium which is secretly testing other potentially lucrative communications technology", such as a major new video processing system understood to involve three-dimensional television. The main difference between those looking to a satellite system particularly to enhance television services and coverage turns on the relative economic advantages and socio-cultural dangers of a national system. The Packer proposal and evidence to the Task Force visualised two commercial channels in all parts of the country (one or two more than now exist in country areas); in effect this involves introducing about 120 new commercial television stations. The practical effect might, however, be to put existing regional commercial television stations out of buseness: the rival Channel Seven network argued tha the Packer proposal would "destroy the economic viability of all commercial regional television stations, and would make redundant a large number of the staff at all but one capital city station in each network", thus destroying "the local orientation of television by destroying the regional station". Milliken (op. cit.) maintains that the main attraction of the Packer proposal (which included if possible actual ownership of the space facility by commercial interests) was that national advertisers "would be assured of their product going out to multiple stations on one feed, rather than having to produce separate films for each station". The conflict of interest between country and the major national stations could, Milliken suggests, cause conflict between the Liberals (favourably disposed towards Packer) and the Country Party, supporting country interests within the coalition. If major city interests were allowed to

participate in country station ownership, following a relaxation of the current ownership restriction requirements, it could be argued that then, and only then, would it become economically feasible to extend commercial television to large rural areas.

One issue here concerns desirable degrees of monopoly, protection or competition. The Task Force noted that in the United States demand for use of the system had been dissappointing, and that the combined effect of competitive multiple satellite provision, competing also with a strong diverse terrestrial network, had been to leave individual satellite operators in too weak a financial position (Task Force, 1978, 35). A second issue is the economies of scale of national television production and transmission compared with regional and local diversity, to which must be linked the very high costs of production of high-quality television programmes. PBAA opposes the networking concept in the sense of generating "programming for public broadcasting solely or largely from a central location" to distribute to all outlets. It prefers an interconnection scheme where all local stations can contribute nationally on an equitable basis and draw selectively. "Increased flexibility, and enriched programme offerings would result" in the radio sector. This is seen as less plausible with television because of very high production costs: "further more, educational authorities would argue that educational programming should be structured in such a way that it integrates well into the local region, and that nationally distributed materials may well satisfy certain situations, but not others..." (Deacon, 1978a, 35).

There is a clustering of values relating to differing options which emerges here: national, commercial, television, with large investments and large audiences based on advertising. The alternative clustering emphasises radio, local and regional diversity, educational and community needs and services, together with participation in planning and programming. Ideological and technological considerations fuse in the choice between more sophisticated video development (two-way video for professional and community groups compared with two-way audio, through to three-dimensional TV) and more variegated two-way and participative,

individualised and community forms of audio-only communication. Community oriented evidence to the Task Force emphasises the extravagance of television compared with radio in terms of frequency requirements, also that some commercial interests in satellite communication would find it cheaper or more convenient than existing terrestrial options, but that this should not alone justify allocation for such use ahead of public broadcasting and non-commercial possibilities. Bystrom also emphasises that "the continuing annual charge of the television system and the necessary software and receivers are enormous when compared to a voice grade system. Satellite television could become another of the well meaning efforts of the high technology countries to sell goods which saddle the less affluent with recurrent costs they cannot maintain". A little later he observes that "over the last decade educational technology has stressed the one-way delivery system - television broadcasting, audio cassettes, video tapes. There reinforce the Platonic view of society with programmes prepared at the top by those who know best for consumption by those at the bottom, with no provision for immediate feedback or quick adaptation" (Bystrom, 1975, 506, 509). We may remind ourselves again that in some respects Australia is not a high technology country, and could be in the situation of Third World countries alluded to by Bystrom, also that there is a Third World within Australia and that satellites heavily oriented towards extended commercial television, probably with high overseas content given costs of production of significantly increased programming, could reinforce what Bystrom calls a Platonic view and Connell, cultural hegemony rather than diversity.

Doubts are also expressed about the viability of two-way video, given the costs. Deacon (1978a, 37) observes that "for some applications, two-way talkback has been shown to be essential (such as remote diagnosis of Alaskan patients), but radio rather than video feedback has been found to be adequate in most educational applications. Technological over-skill is a danger because of its costs, and alternatives to duplex video should be exhaustively examined". The Task Force reported the Department of Aboriginal Affairs' stress on two-way video capability for health and educational purposes, but considered its ad-

vantages marginal and instead favoured high-quality audio communication, perhaps augmented by slow-scan video or facsimile (Task Force, 1978, 61, 82). Slow-scan television is indeed strongly supported as having most of the educational and health delivery advantages at a fraction of the cost. We may speculate that satellite communication thus applied might significantly reduce the disadvantage suffered by rural populations from the clustering of medical specialists in the big cities, a universal and not merely an Australian phenomenon. The Task Force concludes that satellite communication could draw all Australians, mainly through efficient and immediate data transfer and consultation at a distance, into the national health care system, achieving equity through such communication access. In remote communities particularly, and especially with reference to education and health services, satellite communication becomes an option to physical transport - of the patient to a city hospital or of the white teacher to a remote Aboriginal community, which would prefer to be without such physical intrusion.

Other possible applications of satellite communication, for defence and scientific purposes in particular, need not detain us here. They appear unlikely to be determining factors in any decision, and appear to be more purely technological than the public considerations touched above. One other interesting mass media application, using single transmission and multiple reception, a mode attractive to various industries, would be for simultaneous production of a national newspaper in several different cities. The Task Force, referring also to possible electronic transmission of 30 % of current letters by 1990, takes the example of the early difficulties besetting the national newspaper, The Australian. Of course, satellite communication could equally be employed to produce an American or other non-Australian newspaper in each Australian capital city, as Mc Queens points out. The Task Force notes, without fully exploring, such technological options which a satellite system might open up, including the possible consequence for data transmission of a progressive marriage of satellite communication and computer technologies.

A different kind of consideration altogether is the possible impact of satellite communication on the Australian economy and employment situation. We have seen in an earlier chapter that a main public interest is in the effect of technological changes in the communications field on employment prospects, doubtless a reflection of general preoccupation with the endemic high unemployment which characterises the late seventies and may prove to be a more or less abiding condition rather than an aberration. There has been relatively little interest in social possibilities and dangers, such as invasion of privacy, as a consequence of enhanced data retrieval; the main public debate, jobs apart, continues to be about the effect of television, especially television violence and television advertising, on children and more generally on society.

Telecom's computerisation of the telephone service and the telecommunication employees' strike (see chapter 5) created a new public awareness and debate about this aspect of technological innovation which appears, to judge by some public and political reaction to the report of the Task Force, to be flowing across into the satellite communication arena also. The Task Force report attempts to answer concerns about loss of employment opportunities and sees no genuine grounds for concern (page 89). Australia's limited capacity in high technology and its limited capacity for R & D, however, exclude it from anything other than possibly earth receivers within a satellite system, so there is inevitably dependence upon overseas technology and production, which means that much of the employment generated by state-of-the-art technology will not be within Australia. To this must be added anxieties about overseas control as well as, on the mass media side, high overseas content in an expanded television service. It is also not entirely clear how facilities would be rationalised over time between terrestrial and satellite communication systems, or to what extent exclusive reliance on satellite communication would result. This might generate anxiety about vulnerability and dependence (the more so if the satellite system has a significant defence role); if, however, redundancy is required through back-up systems costs may be higher, but so might be employment prospects.

The Task Force concluded that "a national satellite communication system offers a range of improved, extended and new services over the broad frontiers of our national life. An examination of the detailed applications... demonstrates this, we believe, beyond any question. Further, it offers the potential for applications and extensions of our national purposes, as yet unknown. It addas a complete new dimension to the communications capability within our country which cannot be comprehended by detailed considerations of its impact upon known services, service-by-service... A system which can enhance Australia's defence communications, its aeronautical and maritime communications, its public telecommunications both national and international, its broadcasting services, which can offer high potential for improvements in the delivery of health care services, in education, in helping our Aboriginal settlements and the people of the remote outback, offers advantages which cannot be measured solely in financial terms" (Task Force, 1978, 114, 116). The concluding discussion reiterates that Australia, given its size, population and its distribution, is 'ready-made' for a national satellite system.

At the same time, enough has been said in this chapter to indicate that again the relationship between a technological innovation such as this and Australian society must remain problematic. Partly because much depends on trialling, experimentation and community familiarisation yet to take place and for which the experience of Canada or the United States can in no sense substitute - both because of national differences and because demand and viable options for Australia depend upon first-hand experience of Australian users. To this there may be one exception. A national satellite system restricted to the main governmental communications agencies - Telecom and OTC in particular - together with the major commercial television companies and the ABC could be costed and its consequences predicted with reasonable certainty. The Task Force has breached this position with its emphasis on the outback, and on regional and local production (as well as many other uses and future options to be built into the proposed multi-purpose system). Unless the commercial interest which set off the inquiry with its Bond report finally has its way, an Australian satellite system, while stopping short

of the aspirations of the public broadcasting community, still promises to enrich and diversify Australians' communications options, with at least some part of the new capacity being used for individualised, two-way or multi-directional transmissions rather than exclusively to strengthen the centralised transmissions of the dominant interest groups. If so, it could contribute to Australian cultural diversity and (except in the strictly technological sense) national autonomy in harmony with distinctive historical, geographical and socio-ethnic characteristics discussed earlier in this study. If not, its effect could be to increase Australian dependence on transnational corporations in terms of content as well as infrastructure. Even if more television helps to hold populations in the remote mining communities, it would be at the cost of making them increasingly similar to extensions of metropolitan suburbia. The probability then, since we are considering alternative internally consistent political and value sets, is that satellite communication to remote Aboriginal communities would also be a tool for assimilation rather than a means of fostering self-determination. What again emerges in this satellite case study is that, for all that technological innovation can transform communication possibilities and not only for remote communities, its social consequences are socially, financially and above all else politically determined.

V I I I

Indonesia - a note on comparative study and some issues

This study was conceived and commissioned as one of two twinned studies of the impact of modern communication technology in modern and traditional societies. The traditional society chosen was Indonesia. Although there has been a number of consultations and exchanges between ourselves and our Indonesian colleagues, the two studies do not adopt closely similar approaches, partly because of the different and unique circumstances of each country, each with different preoccupations and priorities, partly because of logistics and resources in both places, partly because attempting to impose one methodological approach seemed not to promise useful results for either of us. The Indonesian study was chosen bearing in mind the importance of the wider introduction of television in that scattered and geographically difficult country, and the existence already of a longitudinal study of the introduction of television to various rural communities with a multi-disciplinary initial data base or bench mark.

The Indonesian study seeks to compare the old and new means of communication and their roles by means of analysis of quantitative and qualitative data collected by just before and one year after the introduction of the domestic satellite communication system, examining changes in villages within television reception of the new satellite (by means of the 3,000 television sets distributed to rural communities by the Government) and in others not within the reach of satellite communication. While the context, approach and methodology of the Indonesian study is quite different from our own, the questions it seeks to answer have much in common: the effects of transfer of technology; the impact of both the medium and its content, or software; effects of modern communication technology (television via satellite) on village life pattern and cycle, and even social structure; the effect of this competition on traditional interpersonal communication structures; and the impact on other specific aspects of rural life, such as agricultural techniques, consumption patters and religious life. One of the preparatory documents

leading to the definition of these two studies suggests that they might, among other things, seek to "revise a series of 'false' hypotheses of technology impact on society, for example, that the introduction of television lowered the 'quality' of culture". The findings of the long-term Indonesian study could be extremely interesting and important at least for that rich and complex society and possibly to help indicate whether as a generalisation - and given the difficulties and subjectivities contained in "the 'quality' of culture" - the hypothesis is found to be false.

Australia, where television is now technically accessible to all but a tiny minority of the population, and where colour television, introduced rather late among the world's industrialised and urban populations, has quickly reached some 60 % of homes, has attempted no such study of its social, cultural and economic impact, although there has been a number of official, academic and private surveys and accounts of a one-off kind. Direct comparison with the Indonesian study is thus excluded. What follow are brief points, many of them in the form of questions and several echoing themes of earlier chapters, about the framework and assumptions of such a comparative study.

First, we recall the discussion in chapters 2 and 3 of misleading aspects of the developing-developed or traditional-modern dichotomy generally, and of Australia's own mixed identity - affluent and urbanised, yet largely a primary producer uncertain of its own culture and future between Europe, America and Asia, with heavy reliance on foreign capital for development and high foreign content in its mass media. Despite affluence and one of the highest per capita incomes in the world, it is heavily dependent on foreign R & D and imported technology. Depending on which country imported which particular technology at which time it might be ahead or - as with a domestic satellite system - behind Indonesia and other Third World countries. Another generalisation having some validity is the tendency for modern societies to suffer from information overload and Third World countries to suffer paucity of information. In terms of multiplicity of channels and means of communication we have seen a tendency in Australia for big modern systems based

on advanced technology and large capital investment to reduce the number of channels and concentrate the ownership and control of communications into fewer hands. This is true in an obvious way with ownership and control of the main mass media; it will be important to see whether it occurs in a different sense also with the possible elimination of some traditional channels and modes of communication as television spreads through the Indonesian countryside.

We touched in chapter 2 on questions of choice in technology, recognising that there is not one (state-of-the-art) technology only, although for reasons of prestige, or as a result of marketing techniques by representatives of manufacturers of equipment, such may appear to be the case. Nor is it a simple choice between state-of-the-art and one other, intermediate or appropriate, technology, since many levels and mixes of technology may be appropriate. There are signs of more confident assertion of this possibility and necessity to choose in countries like India, and signs in Australia also that the desirability of choice of technology in relation to socio-cultural as well as economic options and consequences is now more widely recognised. We see some evidence of this in the case studies explored in chapters 6 and 7. Imported technology may result in dependence upon foreign parts and services and lead effectively to foreign control of key components in a communications system, even if the technology is formally speaking owned and not just leased. In the case of television, of course, the cost of producing programmes is such that the result of its introduction is to expose viewers to a high proportion of imported programmes. We noted in chapter 4 the high cost of production compared with purchase overseas. Kato notes that a series of thirteen one-hour programmes can be purchased for several thousand U.S. dollares where local production of one half-hour programme would cost at least $ 3,000 and would be doubtfully competitive in terms of viewer preference (Kato, 1976, 258, and see also Mayer and Mc Queen on foreign content, also Alfian). The connection with the Unesco draft declaration on the mass media is quite close.

Dickson, writing of intermediate technology and the Third World, notes the ideological effects of technology itself as an alien set of

ideas inappropriate to prevailing social and economic conditions, and the extent to which technological innovation is external rather than, as in industrialised countries, indigenous to that country. "It is therefore the class interest of those who make this choice, and the set of social, economic and ideological values by which it is made, that are of concern to us determining the technology adopted in a particular situation". Dickson notes the failure of industrialisation flowing from imported technology to solve problems of poverty, malnutrition and inequality, and its tendency rather to exacerbate such problems. We take the view that exporting technology is frequently a means of exporting ideology, and nowhere more clearly than in the area of communications technology applied to the mass media. We have been puzzled, in studying the educational needs of tribally oriented Aboriginal peoples in Australia, to decide whether their quest and request for 'skills without the packsging' of Western values and ideology is feasible, or whether the skills, or technology, inevitably bring with them the values and ideology which are destructive of traditional values and social structure (Duke and Sommerlad, 1976).

Dickson points out that intermediate technology also has its roots in Western technological rationality, and relies upon accompanying managerial and entrepreneurial skills. These skills and techniques, suggested to be technically necessary, "share the capitalist ideology of the social framework in which they were developed". Intermediate technology itself thus easily becomes a formula for small-scale capitalism; "it is ideally suited to the growth in the underdeveloped countries of a Western-oriented elite or bureaucracy, many of whose members are rapidly becoming its ferven supporters'. It is further legitimated by international development agencies "whose ideology is itself built of Western ideas of technological rationality and the apparent neutrality of technological development" (Dickson, 1974, 152). Dickson goes on to note the more sophisticated support given to intermediate technology to avoid fostering resistance to what is seen as merely second best. He casts doubt on the idea of a dual economy, and points out the tendency to define undesirable social consequences as merely technical matters amenable to technological resolution: "technology is seen as a neutral

element in this process divorced from any direct social or political considerations". 'Systems analysis' tends to be employed in such discussions for its apparent objective and ideological neutrality. For Dickson, however, "both utopian and intermediate technology provide an antithesis to the systems analysis approach. They refuse to accept that social life can be fragmented into isolated parts". Schumacher even argues for a 'Buddhist economics' "based on a non-materialistic concept of the importance of work to both the individual and the community" and embracing "the systematic study of how to gain given ends with the minimum means" (Dickson, 1974, 16-61). Such an approach would be no less relevant to Aboriginal Australia than to Buddhist societies themselves. The concept echoes our discussion in chapter 2 of the implicit ethnocentrism of Western science and concepts of development.

Dickson emphasises the way the ideology of industrialisation becomes absorbed into the cultural patterns of Third World societies, referring to L.T. Wells' 1972 study of industrial plants in Indonesia. Use of international trade names "often overshadowed the price advantages of competitive intermediate and labour-intensive technologies. Perhaps more important, however, was an apparent inbuilt bias of managers and engineers in favour of capital-intensive advanced technology". Where a firm had a monopoly advantage in local markets 'engineering man' tended to override 'economic man'. Dickson concludes here, as of alternative technology becomes not only a function of, but in fact an integral part of, the dominant political interests, it is impossible to think in terms of technological change unless we are simultaneously prepared to consider the need for political and social change" (Dickson, 1974, 167-8).

These general propositions about technology in countries like Indonesia have still more force when applied to communications, given the political significance of this sector. We may conclude these brief reflections on communications technology in Third World countries by noting a paradox about mass media and cultural and ethnic diversity or pluralism. The requirements of national integration in culturally and linguistically diverse countries like Indonesia might appear to over-

ride the claims of difference minorities for their own communication systems, use of local language and so on. We have seen in chapters 3 and 6 the importance of ethnic and cultural diversity in Australia, both generally and in relation to public broadcasting. One might assume that a country concerned with national unity and with possible grounds to fear separatism and fragmentation would insist upon strong centralisation and close control over both the means and the content of communications. We are informed however, that official thought and practice in Indonesia is moving in somewhat similar directions in this respect as in Australia. Radio is becoming more dispersed. Local radio stations are seen as better, carrying material relevant and of interest locally. Radio, which is much cheaper to use than television, can also contribute to local literature and folk culture. The Government is reported to be making an inventory in most of Indonesia's 26 provinces of local history, culture and folkways, partly from fear that this cultural wealth will be destroyed by modernisation, and there is interest in using the mass media more deliberately to retain and foster traditional culture and means of communication.

Thus, while decrease rather than enhancement of variety might appear politically desirable to some societies, including Indonesia, and unnecessary to a country not evidently threatened by separatism, such as Australia (for all that States' rights and hostility to federal power are a recurrent theme in Australian political history), we note, on the one hand, political resistance to ethnic variety in Australia (chapter 6) and, on the other, interest in fostering diversity among senior planners of the communications sector in Indonesia. Our first view on this question was that industrialised societies, in persuading Third World societies to adopt appropriate forms of technology and especially to sustain and encourage cultural diversity, might be contributing to holding them in a condition of political and economic weakness and so of continuing dependence on more wealthy industrialised societies. Reflection upon the role of the media (chapter 4) and the processes of co-opration which may occur with ethnic and community access radio, for instance, (chapter 6) suggests that decentralisation and support for the self-expression of cultural and language minorities, within certain

parameters and controls exercised by Government, might in fact be a very effective means of enhancing national integration.

We should also note, in connection with the discussion in chapter two about the possible ambivalence of media scholars to traditional forms of communication and a tendency to dismiss adherence to such forms as romantic, a lost cause in the face of the 'global village', that such forms are apparently taken quite seriously by communication scholars and planners in Indonesia. The attitude represented by Rahnema and others may be more than romantic or Luddite. Illich, in a recent address in Australia, remarked that "the majority of people in poor countries today learn to speak without any paid tutorship. And they learn to speak in a way that nowhere compares with the self-conscious, self-important, colourless mumbling that, after a long stay in villages in South America and South-east Asia, surprised me again during the least three days on American campuses. And for people who cannot hear the difference I feel only contempt..." (Illich, 1978).

The very fact that English (or French or Japanese) is not the national language of Indonesia may provide protection from some of the undesirable social and cultural consequences of the 'global village' or an open skies policy. It is intriguing to speculate, however, what are the likely implications of fostering national and local languages rather than extending the use of an international lingua franca such as English. (A number of countries have moved from English to the national language as the official language in recent years, and recognition of local languages within countries replicates the same process at a more local level). To this we might add the hesitant questioning of the validity of universal literacy as a development, or even a human, objective for all countries. One result could be that fewer rather than more persons come to have access to universal culture or to be exposed to the homogenizing effects of the 'global village'. This could restrict those in a society who exercise power and control through knowledge to a smaller proportion who can use the dominant language or languages of the 'world community'. Or to put it in another light, a modern Tower of Babel could be erected as a defence against the cultural imperialism otherwise facilitated by modern communications technology.

I X

Autonomous Australia? - implications and directions

"Technological progress, particularly in the communications field, cannot be considered as necessarily beneficial per se. The potential of existing technologies for social improvement and innovation has not been fully exploited - for example the telephone is widely available through the community yet there is a substantial group that cannot afford it... the computer is an effective tool in information processing but is still confined to the more powerful sectors of society, business and government..." (ACFOA, 1978). A recent press report on the communications problems of Queensland's outback residents observed that the quest was "for nothing more than equality of service with bigger centres..." One speaker said a great deal was being done to introduce 'push button telephones and other play toys'. But it seemed the political representatives of country areas were not strong enough to see that something was very wrong with communications in rural areas" (The Canberra Times, 15 June 1978).

One clear lesson of this study has been that technological determinism is a fallacy. Another is that choice, which in a context of major decisions about communications systems and communication technology means politics, is real and crucial. To discuss social and cultural implications of new technology for Australia while omitting consideration of politics is impracticable, as the two extracts above suggest. The very process of choosing, the capacity for choice as well as the decision itself, is important for the making of future Australia. The 'profile of Australia' which, albeit hesitantly and with awareness of its deficiency and subjectiveness we have felt obliged to sketch, includes uncertainty about the future direction and identity of this country. Despite its affluence it is economically a developing country, more of a primary producer than a centre of high technology and advanced R & D; it is heavily dependent on foreign capital investmen, overseas technology and foreign media content. Its English language provides no barrier or filter to invasion by foreign contet. Nor is

there strong evidence that the foreign content is widely disapproved, for all that media scholars and individual nationalists analyse and protest it. More generally, Australia's future identity as (a) Asian rather than merely a European outpost and/or (b) plural (or multicultural or polyethnic), is in the balance.

We have provided few examples of authochtonous technological innovation in communications in Australia, although some can be found. The old pedal radio of the 1940s was an (unexploited) Australian development. There have been forays into solar energy research and its application to communications, but nothing sustained or conclusive. The Australian Interscan system for aircraft landing, announced in 1978 as a marketable package in the Asian region, is an unusual example. In the main the tendency seems to have been for home-grown ingenuity to be progressively ruled out by more sophisticated technology - in telephones as with some components of modern cars and with colour television. The success of CB radio and the burgeoning interest in microprocessors suggests that there is willingness and interest, in principle, to engage with and handle modern communications technologies.

Regulation and content furmulae as well as direct financial assistance have contributed to some development of an Australian film and television film industry. A few distinctively Australian films exploring aspects of Australian life, history or culture were made in the 1970s, some with modest success overseas. Without public sponsorship and protection, however, they appear unlikely to prosper against the economices of imported film, and there is the tendency and temptation to make 'American' Australian films for an international market, so that 'Australian content' becomes something of a chimera. Maybe what is needed is a much more subtle and sensitive content analysis of 'Australian content' in film and television production to identify what is distinctively Australian in content and style, produced about and for Australians rather than using Australia or Australiana as the raw material for products marketable overseas. The recent Australian film Newsfront is illuminating and (from the value stance of preferred national autonomy in the communication sector) heartening,

as well as relevant as an analysis of the impact of the new television technology and market sector on cinema newsreel production. One theme of Newsfront was the tension between American big business in this sector represented both by television and commercialism, and the older newsreel tradition representing an emphasis on top quality Australian reporting and coverage rather than world events, with a purer 'professionalism' in the lead characters portrayed.

We have been seeking evidence, in the form of emergent trends, that Australians might be consciously turning away from the latest innovations in technology in favour of some more appropriate level or mix - appropriate that is to a recognised and preferred Australian culture and identity. The search is logically complicated by uncertainty about Australian identity and future, an uncertainty in turn further exacerbated by the disjunction between the abiding myth of the 'great outback', the hardy bushman, supposedly typifying the majority of Australians who are suburbanites or city-dwellers. In some academic and official writings, and in various community reform groups and movements mentioned in earlier sections, we do find examples to support the view that there is deliberate choice rather than indiscriminate acceptance of the latest in technology from overseas. The most significant and substantial examples of this are in the debates about new telecommunication technologies, both for the telephone system - mainly within Telecom Australia initially but becoming a major public debate through all face-to-face and electronic media - and with the prospect of an Australian domestic satellite, as well as more generally over the introduction and wider application of new technologies. This quite dramatic largely anti-technology debate in the broad communications sector draws its energy mainly from the coincidence or confluence of possible communications technological innovation with a sustained preoccupation with a continuing high-level of unemployment, and a drawing recognition that this may not simply go away.

While unemployment has given the leverage and focus for a wide public consciousness and concern about the impact of modern communication technology on society, we have also seen signs of much greater sophistication in awareness of the processes of the media: widening debate

about the effect of television viewing, both content and process, on children and society; recognition of the processes whereby 'news', 'events', 'information', are created and packaged by the different mass media to suit their particular requirements; more alertness to the extension and implications of trans-national influence, ownership and control. The most striking example of social choice overriding economic and technological progress is provided by the outstation or homeland movement of Aboriginal communities in the Centre and the North. Tribally oriented Aborigines provide the most extreme example of a quest for cultural pluralism. The legal system has recently modified its own practice to accomodate some elements of traditional law, and so has the delivery of educational services. In the main, however, Australia has proved bureaucratically inflexible and incompetent in translating the concept of self-determination into inter-community communication mechanisms; social control is more typical than respect for diversity expressed through equalised communications systems. On the other hand, Australia has by a number of political and administrative acts declared itself to be a plural, multi-cultural society. It remains to be seen whether the applications of satellite-based communications and the further development of community and ethnic radio are used to strengthen this identity, both city and outback, or rather through cooptation and imposed cultural homogeneity to negate it.

It is unlikely that Australia will make any significant contribution to the development of state-of-the-art communications technology, given its modest R & D resource base. Our interest is rather in the impact of the chosen and used forms of communications technology on this society; hence our preoccupation with the twin themes of Australian identity - what is distinctively and consciously Australian - and choice, which tends often to mean the exercise or absence of an act of political will. For a country antithetical to national planning generally, and anything which might infringe the freedom of the mass media in particular, Australia has a striking battery of forms of media regulation. There has also been a number of recent steps towards more deliberate planning of a communications system, or secotrs thereof, some of which we have described in this sutyd. Re-allocation of

resouces to different forms or areas is not, however, easy, givent the heavy investment in existing infrastructures and the important role of advertising revenue in all the main media. From this perspective, the quite sudden arrival of public broadcasting must be acknowledged to be an event of some significance. It will require some years to determine whether it represents enrichment and diversification or co-optation and domestication.

We conclude with an intriguing and unsettling question. Geoffrey Vickers, in a recent study of 'the weakness of Western culture' argues that an outstanding characteristic of the past 200 years has been the rise of the autonomous individual, a concept radically opposed to that of the responsible person as understood through several preceding centuries in the West. "Literally, an autonomous person is one who makes his own rules and sets his own standards". He is the logical opposite of Marthin Luther who 'could do no other'. Vickers notes the revival of tribal entities in the modern world "more compelling in their loyalties and fiercer in their mutual hostility" than those who fought the religious wars of the early modern period. "Political partitions and secessions multiply. Racial and religious cleavages reappear. The cultures of subgroups (students, ethnic minorities, trade unions) dominate the decaying structures of the societies which they constitute. The autonomous individual is a status tolerable only by those who are to use its facilities to choose an acceptable and manageable set of personal commitments". Vickers concludes that "our 'authonomous egoism'" is "a cultural deviation rather than a biological datum" (Vickers, 1977, 457, 469-71).

We have entitled these concluding remarks 'autonomous Australia' and have displayed throughout this study a preference for cultural pluralism as well as for a kind of Australian nationalism and for an active participative political process. We do not find ourselves necessarily in conflict with Vickers, whose preference for individual responsibility over Nietzchean non-accountability and 'freedom' we share. Yet in preferring the richness of cultural (and 'sub-cultural') diversity, over the levelling down, homogenization and trivialisation threatened by the 'global village', we should keep in sight that, as so often, there may be another side to the coin.

References

Access Video News	Free speech and 3ZZ, Melbourne, 1977.
Access Video News	Melbourne, vol. 3, 1&2, 3&4, 1977.
Aitkin, Don	"Why the little magazines flourish", The National Times, May 20, 1978.
Alfian	"Some observations on television in Indonesia". Richstad, Jim, New perspectives in international communication, East-West Centre, Hawaii, 1976.
Australian Post Office	Australian National Satellite System, Paper number STG 73/5, 1973.
Australian Telecommunications Employees Association	"Should you step aside for a computer?", ATEA, 1978.
Blainey, Geoffrey	The tyranny of distance, Sun, Melbourne, 1966.
Bystrom, John W.	"A satellite communication system; global development and cultural imperialism" (n.d.)
Bystrom, J.W.	"The application of satellites to international interactive service support communication", Proc. R. Soc. Lond., A. 345, 1975.
Campus Community Broadcasting Assoc. Inc.	"Application for the grant of a licence for a public broadcasting station to serve the Canberra area in the Australian Capital Territory", 2XX, Canberra, 1978.
Canberra Times	"Australia a new type of colony: Oliphant", 24 May 1978.
Carpenter, Edmund	Oh what a blow that phantom gave me, Palladin, 1977.
Chu, Godwin (and Wilbur Schramm)	Communication and development in China, Honolulu, Hawaii, 1976.
Clark, C.M.H.	A short history of Australia, New American Library, 1963.

Commoner, Barry — The poverty of power, Jonathan Cape, 1976.

Community Radio Federation Limited — 3CR Annual Report 1977, Melbourne, 1978.

Commonwealth Government Task Force — National Communications Satellite System, Report, July 1978, AGPS, 1978.

Connell, R.W. — Ruling class, ruling culture, Cambridge, 1977.

Conway, Ronald — The Great Australian Stupor. An interpretation of the Australian Way of Life, Sun, Melbourne, 1971.

Cranston, Frank — "The spirit of ANZAC Day", The Canberra Times, 26 April, 1978.

Deacon, C.W. — "Submission on behalf of the Public Broadcasting Association of Australia to the Australian Government Task Force National Communications Satellite System Inquiry", Canberra, 1978.

Deacon, C.W. — "Communication satellites: humanistic applications", paper presented at the Annual Conference of The Isolated Children's Parents' Association, Dubbo, 1978b.

Department of Continuing Education, University of Adelaide — Annual Report, 1977.

Department of the Media — Papers presented to public radio broadcasting conference, Fontana, 1974.

Dickson, David — Alternative technology and the politics of technical change, Fontana, 1974.

Duke, C. & Sommerlad, E. — Design for diversity: further education for tribal Aborigines in the North, E.R.U. ANU, 1976.

Edgar, Don (ed.) — Social change in Australia, Cheshire, 1974.

Edgar, Don — Children and screen violence, Univ. of Queensland Press, 1977.

Eisenstadt, S.N. — "The changing vision of modernization and development", Schramm and Lerner, 1976.

Emery, Frederick E. — "Methodological premises of social forecasting", The Annals of the American Academy of Political and Social Science, March 1974.

Emery, Frederick E. & Abrahams, B. — Video Access Centres (VACs): a Feedback Evaluation, CCE, ANU, 1975.

Emery, F. & Emery M. — A choice of futures, Martinus Nijhoff, 1976.

Emery, Frederick E. — Futures we are in, Martinus Nijhoff, 1977.

Emery, Frederick E. — "The fifth wave? Embarking on the next forty years", subsequently published in The limits of choice, CCE, ANU, 1978.

Enzensberger, Hans Magnus — "Constituents of a theory of the media", New Left Review, 64, 1970.

Fernandos, George — "Industrial policy", Human Futures, 1, 1, 1978.

Feyerabend, Patricia — Against method, NLB, 1975.

Foucault, Michel — The archaeology of knowledge, Tavistock, 1972.

Green, F.J. — Australian Broadcasting, a report on the structure of the Australian broadcasting system and related matters, Postal and Telecommunications Department, AGPS, 1976.

Griffiths, David — Democratising radio: the long revolution, Media Monograph III, ARA Melbourne, 1975.

Griffiths, David — Autocracy in the Airwaves, media centre papers 4, La Trobe, Melbourne, 1976.

Gunther, J. & Theroux, J. — "Developing mass audiences for educational broadcasting: two approaches", Prospects, VII, 2, 1977.

Gyngell, Bruce et.al. — Self-regulation for broadcasters, a report on the public inquiry into the concept of self-regulation for Australian broadcasters, Australian Broadcasting Tribunal, AGPS, 1977.

Hancock, W.K. — Australia, Sydney, 1930.

Hefner, Robert — "America today: 'what hath God wrought?', The Canberra Times, 27 January, 1978.

Horne, Donald — The lucky country, Penguin, 1964.

Horne, Donald — Death of the lucky country, Penguin, 1976.

Illich, Ivan	"Language as a commodity", Learning Exchange, Melbourne, 70, 1978.
Inayatullah	"Reconsideration of the Western Model", Schramm and Lerner, 1976.
Iseman, Kay	"Dream, disillusion and the Australian tradition", Meanjin, 36, 3, 1977.
Kato, Hidetoshi	"Global instanteneousness and instant globalism - the significance of popular culture in developing countries", Schramm and Lerner.
Lerner, Daniel	"Towards a new paradigm", Schramm and Lerner, 1976.
Mc Clintock, Joan & Needham, Rosa	"Satellites", Australian Social Welfare, March, 1978.
Mc Queen, Humphrey	A new Britannia, Penguin, Melbourne, 1970.
Mc Queen, Humphrey	"The suckling society", in Mayer & Nelson, op. cit., 1976.
Mc Queen, Humphrey	Australia's Media Monopolies, Widescope, Victoria, 1977.
Maddison, John	Radio and television in literacy (a survey of the use of the broadcasting media in combatting illiteracy among adults), Unesco, 1971.
Manzoor, Ahmed	"The planning crisis and the limitations of external aid", Prospects, VII, 2, 1977.
Martelanc, Tomo et. al.	External radio broadcasting and international understanding (broadcasting in Yugoslavia), Unesco, 1977.
Mayer, H.	The Press in Australia, Lansdowne, Melbourne, 1964.
Mayer,Henry & Nelson, Helen (ed)	Australian Politics, a fourth reader, Cheshire, 1976.
Mayer,Henry	"Media challenge for change", in Mayer & Nelson, op. cit., 1976a.
Mayer, Henry	"Media", in Mayer and Nelson, op. cit., 1976b.
Mazrui, Ali A.	"The impact of transnational corporations on educational and cultural processes", Ali A. Mazrui, Prospects, VI, 1, 1976.

Milliken, Robert	"Packer plans a satellite network". The National Times, November 4, 1978.
National Satellite Task Force	Transcript of conference with Public Broadcasting Association in Australia.
Pawley, Martin	The private future, Thames & Hudson, 1973.
Peacesat	"Peacesat News File 1970-75", Peacesat, Hawaii, 1976.
Peckover, W.S. & Evans, D.A.	Telecom 2000 - a view from outside, Port Moresby, 1976.
Public Service Satellite Consortium	Newsletter, San Diego, 1977-78.
Pym, Denis	"The demise of management and the ritual of employment", Human Relations, 28, 8, 1976.
Rafe-uz-Zaman	Why literacy? An essay on the connexion between literacy and development, Literacy Discussion, IX, 1, IIALM, 1978.
Rahnema, Majid	"Development is like a tree", Ideas and Action, 119, 1977.
Reddy, A.K.N.	"An alternative pattern of Indian industrialization", Human Futures, 1, 2, Summer 1978.
Rogers, Everett M.	"The passing of the dominant paradigm - reflections on diffusion research", Schramm & Lerner, 1976.
Schramm, Wilbur & Lerner, D. (editors)	Communication and change: the last ten years - and the next, Hawaii, 1976.
Schramm, Wilbur	"Communication and development - a revaluation", Communicator, April, 1977.
Schumacher, E.F.	Small is beautiful, Abacus, 1974.
Sinclair, John	"Mass media and society: critical theory and critical research", Edgar, op. cit., 1976.
Smith, Keith B.	"The impact of transnational book publishing on knowledge in less-developed countries", Prospects, VII, 2, 1977.
Susanto, Astrid D.	"Problems of communication planning", East-West Centre, Hawaii, 1976.

Telecom Australia — Telecom 2000, Melbourne, 1975.

Tevi, L. — Lifestyles and development objectives, ACFOA, 1978.

Unesco — "Intergovernmental conference on communication policies in Asia and Oceania", annotated provisional agenda, Paris, 1978a.

Unesco — "Intergovernmental conference on communication policies in Asia and Oceania", working paper, Paris, 1978b.

Vickers, Geoffrey — "The weakness of Western culture", Futures, December 1977.

Walker, David — Dream and Disillussion: a search for an Australian Cultural Identity, ANU Press, 1976.

Western, John S. — Australian mass media: controllers, consumers, producers, A.I.P.S., 1974.

Wheelon, Albert D. — "Satellite communications for public service", address to PSSC conference, Washington, 1977.

Willmot, Eric — The last experiment: an alternative view of Australian history, ACFOA, 1978.