The Concept of the Industrial Channel in the Domain of Culture, Information, and Communication: A French Speciality?

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ABSTRACT *The concept of the industrial channel refers to an intermediary realm of activity, often characterized as a meso-system, whose functioning logic cannot be reduced to micro- or macro-economic behaviour. The article aims also to present the concept of filière and to describe the different usages of it in the domains of culture, information, and communication in France and in Quebec. We will demonstrate as well that, although quite specific in their formulations, the analyses of filières share many common points with analyses based on the chain of value concept when these rest upon perspectives that are larger than a mere firm or economic sector.*

KEYWORDS *Industrial Channel; Cultural industries; Media industries; Industrial economics*

RÉSUMÉ *Le concept de filière industrielle fait référence à un domaine d'activité intermédiaire, parfois qualifié de méso-système, dont la logique de fonctionnement ne peut être réduite ni aux comportements micro-économiques, ni aux comportements macro-économiques. Le présent texte vise à présenter ce concept de filière et à caractériser les différentes utilisations qui en ont été faites dans le domaine de la culture, de l'information et de la communication en France et au Québec. Nous montrerons également que, bien qu'elles soient spécifiques dans leurs formulations, les analyses en filières se trouvent à partager plusieurs points communs avec des analyses fondées sur le concept de chaîne de valeur lorsque celles-ci reposent sur des perspectives débordant le strict cadre de l'entreprise ou du secteur.*

MOTS CLÉS *Filières industrielles; Industries culturelles; Industries médiatiques; Économie industrielle*

Introduction

In describing the economic activities related to culture, information, and communication, it is normal to use a certain number of terms and concepts that originate in the field of industrial economics. However, while these terms may be different from one another, they are often used as synonyms. Thus, we often speak of an industry, sector, and market that are no different from any other. What is more, Francophone scientific literature has proposed a supplementary term, the industrial channel (*la filière industrielle*), for which there was no English-language equivalent (until now).

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This article aims to present the concept of the industrial channel; to explain its use in the domain of culture, information, and communication; and to show to what extent this concept is one of particularly French origin. First, I present the origin and meaning of the terms most often used to describe productive systems. I then explain the principal elements that characterize an industrial channel–based approach. Then I examine the different ways in which this concept has been employed in research on culture, information, and communication. I then attempt to determine the extent to which Anglo-Saxon approaches rely on the concept of the value chain, building these analyses upon the backdrop of the concept of the industrial channel. Finally, I consider the current relevance of this concept and the future of industrial channel research.

Industry, sector, market, product ... what exactly are we talking about?

In order to understand the nature, importance, and particularities of any economic activity, and particularly if one wishes to conduct comparisons of it, identify dynamics, or implement industrial policies, it is essential to classify activities and firms into homogenous categories. However, economists, according to various eras and currents of thought—and generally according to their personal research objectives—have favoured one characteristic over another in defining such basic units. Thus, traditionally, we refer to the concept of "the market" when a group of firms appears to be homogenous, because they sell their products in the same marketplace. To the contrary, we may also refer to "producers," when the question is approached from the point of view of the production and valorization of capital (Angelier, 1991). According to Alfred Marshall (1920), an industry defines itself according to the firms producing a good, the production processes utilized, and the relationships between firms. Joan Robinson (1933) defines an industry as a group of firms and products delineated by a gap in the "chain of substitutes." In addition, Colin Clark (1940), pioneer of the national accounting systems, proposed that firms be grouped into three sectors: primary, secondary, and tertiary. This is the foundation upon which modern national accounting systems were developed.

The most precise definitions are thus the ones used by the statistics organizations that collect the necessary data for national accounting. In Canada, the North American Industry Classification System (NAICS), jointly created by the statistics bodies of Canada, Mexico, and the United States, designates industries according to the criterion of similarity of inputs, skills, and production processes (Statistics Canada, n.d.). The unit of observation is the "establishment," and it acts as an exhaustive system with a five-level hierarchy and a six-digit numerical coding system representing sector, subsector, industry group, industry, and national industry. The NAICS does not account for the vertically or horizontally integrated activities of large multi-establishment enterprises. Thus, the activities of certain enterprises may cover several sectors of the NAICS.

For example, to evaluate the market share or the demand for certain products, it is helpful to use product classification based on the demand criteria and grouped by market. For this, one would use the North American Product Classification System (NAPCS), which is a systematic classification of goods and services throughout the economy.

According to its typical statistical meaning, an industry corresponds to the ensemble of firms engaging in the same primary activity. The NAICS and the NAPCS, thus, do not encompass the same industrial reality. Industry X, for example, groups together enterprises of the same primary activity X or primary product X. However, the NAPCS class of product X assembles the ensemble of firms whose activity is related to product X, whether this is the enterprise's sole, primary, or otherwise related activity.

These different concepts have been defined in order to respond to precise statistical needs, but they do not relate to a definitive conceptualization of industrialization. The categories can be very useful if, for example, one wishes to know statistics concerning the publishing industry (the ensemble of establishments for whom their primary activity is publishing books) or the respective parts of children's books, textbooks, trade books, et cetera, in the total sales of books (from all the establishments engaging in any publishing activity). On the other hand, it is quite difficult, based on a single cross-section of a productive system, to understand the nature of the links between the work performed by the writer, the editing of a manuscript, the reproduction of multiple copies of the book, its distribution, and its ultimate provision to the consumer. It is for this reason that, over time, several economists—unsatisfied with these partitions and wishing to propose a partitioning of greater pertinence to the productive system—have come to imagine alternative concepts that are less restrictive than those of industry, sector, or product. This is how the concept of industrial channel emerged in France (Angelier, 1991).

The industrial channel

Starting in the 1970s, a great deal of academic industrial economic research was undertaken in France on the theme of productive sectors and industrial channels (Toledano, 1978). While conducted according to various methods, these approaches all sought to extend the nomenclature of industries and products to reflect what was occurring in the marketplace in terms of competition between products and firms taking part in the same activities. These approaches stood in opposition to the standard neoclassical vision, according to which the optimum allocation of resources is assured by the market and by the atomization of production activities of competitors whose relationships are regulated by basic pricing mechanisms. This research also differs from the industrial economics school adhering to the S-C-P paradigm (Structure-Conduct-Performance), which contents itself with examining how the structure of an organization or of a specific market determines prices and performance from a static or comparative static perspective.[1] Inspired by structuralist approaches then trending among French economists, certain researchers developed an approach to industrial economics oriented more toward production than the market.[2]

The concept of the industrial channel refers to a field of intermediary activity sometimes qualified as meso-economic, whereby the operational logic, perceived as autonomous and specific, cannot be reduced to micro-economic behaviour or macro-economic behaviour. According to De Bandt (1991), three common points exist between all industrial channel analysis: 1) the idea of productive transformation, whereby the industrial channel is constituted by successive operations articulated around a

common technical substrate; 2) the grouping of a certain number of industrial sectors—in the everyday sense of the term—linked together primarily by provider-client exchanges; and 3) the intensity of relations between agents, creating fairly strong links of interdependence, a characteristic that makes itself known through common interests and constraints.

Beyond these common points, however, industrial channel analysis covers a diverse range of conceptualizations and approaches. For some, the industrial channel is a concept that is essentially technical: the accent is put on the succession of transformative operations and their technical modes of production. For others, it is a network of inter-industrial relationships and a means of parcelling a productive system. Still others see the industrial channel as, ultimately, a meso-system, in that it is a complete organized production entity (Arena, Rainelli, & Torre, 1991). In this final conceptualization, the most elaborate of the three, research tends to accentuate the economic aspects rather than behavioural techniques and relationships between actors (De Bandt, 1990, 1991; De Bandt & Humbert, 1988). Thus, the industrial channel is conceived as an organized set of relationships (that is to say, a system endowed with its own functions) and as the range of strategic actions on the part of involved actors. Such a set of relationships is organized more or less spontaneously and can be adapted, rigid, or flexible in its functioning. This means that these relationships obey a number of rules, many of which may be very specific. The rules, which may or may not be formalized, condition the actions and behaviours of the actors. They may concern subcontracting practices, ordering procedures, transmission of information, inter-firm credit, inter-firm labour mobility, technical standards, quality standards, competition practices, and more. Within this framework, the dynamic of the productive system is composed primarily of the complex game of confrontations resulting from the strategic plans of involved actors and their conflictual and cooperative relationships.

Given this diversity of approaches, the industrial channel can be appreciated as a concept that can potentially play four major roles: as a techno-economic descriptive tool; as a method for mapping the productive system; as a method for analyzing the strategy of firms; and as an industrial policy instrument (Morvan, 1985). That said, following his exhaustive research on industrial channel literature, De Bandt (1991) concluded that only the first and third of these roles (techno-economic description and analysis of industrial strategies) had been completely fulfilled by the industrial channel approach. Studies that had attempted to examine the other two roles were few in number and often inconclusive. The general result of this is not insignificant. Even when limited to techno-economic description and the analysis of industrial strategies, such a conceptualization introduced a more comprehensive understanding of subjects than traditional research focused on industries or markets. Thus, the concept of the industrial channel permits a considerable deepening of the knowledge about the practices of several industrial channels, their technological and technical dimensions, the nature of relationships between firms, and the strategies of involved actors.

It was in this way that an entire approach to thought and research was incorporated into French industrial economics and has transformed it since the 1970s. This approach continues to play a central role today. And as we shall see shortly, this ap-

proach to industrial reality has also had a significant impact on analyses of culture, information, and communication industries.

From industrial channels to culture, information, and communication channels

Since the mid-1970s, the perception that cultural activities are also industries has become progressively accepted. Thus it is logical to use economic tools to understand the functioning of these industries and, above all, to denote what sets them apart from other industries. Following from this, sectoral approaches reflect the concepts that have developed alongside the industrial economy, especially industrial channel approaches. However, they have equally integrated the usual concepts, such as concentration, barriers to entry, and price discrimination.

These approaches have turned out to be particularly fruitful when the results of academic work and the energy generated by them have led the public authorities and sectoral professionals to examine the situation together, eventually forming a partnership (Rouet, 1998). This has occurred in the book publishing industry (see the work of the Observatoire de l'économie du livre, n.d., & Rouet, 1992), cinema (see the work of the Centre national de la cinématographie, n.d.), the press (Charon, 1996; Toussaint, 1976), the recording industry (Brousseau & Moati, 1997; D'Angelo, 1989, 1997; Le Diberder & Pflieger, 1987), and the audiovisual sector (Le Diberder & Coste-Cerdan, 1988; Kopp, 1991; Paracuellos & Pigeat, 199; Regourd, 1992).

An identical process took place in Québec, with work conducted or supported by the Ministry of Culture and Communication of Québec and the Société de développement des entreprises culturelles (SODEC) regarding the recording and performance industry (Ménard, 1998a, 1998b; SECOR, 1989; Tremblay, Lacroix, Ménard, & Saint-Laurent, 1993), the audiovisual sector (Lacroix, Ménard, & Gauvreau, 1995), the book publishing industry (Ménard, 2001), and cinema (Samson & Bélair, 1989).

To varying degrees of complexity and profundity, these works are the foundation of an "elaborated" industrial channel approach, one understood to be a meso-system. Far from limiting themselves to the technical dimension, they integrate inter-firm relationships and the organizational aspects of industrial channels. Here, industrial channels are treated as organized sets of relationships obeying precise rules. In this way, the research shows that the industrial sector can be described by presenting its principal components—the sectors of which it is composed—and its primary actors, as well as the fundamental rules of the game and the relationships between components. In other words, by showing client-provider relationships as precise, real, and monetary flows. Some of this research has also proposed more precise analysis by introducing the factors of margins and value-added sharing between sectors. Depending on the case, this sharing of value may be defined by regulation, the customs and habits of the specific domain, or the power dynamics between actors, such as regulations and laws, habits and sale and purchase policies, or the management and mobility of labour.

In the 1970s and 1980s, knowledge of cultural, informational, and communicational industrial channels was still embryonic, and the approaches examined earlier in these pages were both statistically and analytically more productive. Much research also either

supported or served as a point of origin for the development of an elaborate statistical infrastructure that was useful for both sectoral actors and public authorities (see the work of the Observatoire de la culture et des communications du Québec, n.d.). This is especially the case for the initiation and regular review of an extensive and diversified system of public support over the past 30 years. At around the same time, more global approaches (as opposed to the sectoral approaches just examined) were also developed. These focused on the concept of "logic" to describe the modes of organization of cultural, informational, and communicational industrial channels (Lacroix & Tremblay, 1997). One finds in the work of these authors, however, two different meanings for the concept of logic. In the first case, logic is defined as the way of describing an industry that privileges the elements and the rules that govern its functioning within a prescribed territory, independent of the strategies deployed by the actors operating within it. These rules—technical, economic, juridical, or social—determine the characteristics of the functions of the creation, production, distribution, and consumption of cultural goods, as well as the relationships between these functions. They depend on the state of technology, which defines a set of possibilities and constraints, as well as the history of power relations between actors and the legislative framework which defines what can and cannot be done. It is worth noting the obvious parallel between the concept of logic and the rules of the game associated with the meso-system model, perfectly representing the vision that the sectoral research examined above has provided.

The second meaning of logic, however, relies upon dominant institutional forms at a given historical moment. As such, it aims to determine generic models that permit the description of the particular forms adopted by the institutionalization of commodification and industrialization in the domain of culture, information, and communication. Each model may represent several industrial channels whose regulatory treatment is similar. These models are the result of a certain technique which creates relationships between the specific structures taken on by different economic functions, types of content, sorts of funding, and specific social uses (Tremblay & Lacroix, 2002). According to these same authors, research on major models of institutionalization, such as the observation of their evolution, would allow for a broader understanding of the entire dynamic of culture, information, and communication industries. Further, since the end of the 1970s, several theorists of what can be called the communicational approach to culture industries[3] have paid special attention to two major generic sorts of logic—or socio-economic models—that permit for the characterization of these industries: editorial logic and flow logic.

Editorial logic, as the name indicates, appeared with book publishing and was then extended to musical recordings, videocassettes, and, with a few caveats, to cinema. It is characterized by content that is discontinuous, durable, and individualized; the reproduction of hardware; a central role played by the publisher or producer; and financing through direct commodification (purchase or rental of copies, or payment for one-time viewing). Flow logic emerged with the first radio stations in the 1920s and further developed with television broadcasting. It is characterized by a continuous and ephemeral content presented in the form of programs and diffused massively and simultaneously toward a broad public. In this case, the central role is played by the

programmer while financing is carried out through indirect commodification (advertising, public donations).

The editorial and flow logics dominated the culture industries until the end of the 1970s, when the development of recording and archiving techniques (light video, videocassette recorder) meant it was possible to offer practically all cultural productions in an individualized form and at a reasonable price. The late 1970s also brought with them the rapid extension of cable television networks, followed by satellite broadcasting, microwave transmission, and the Internet. According to Tremblay and Lacroix (1991), this explains the emergence of a new sort of logic, which they dubbed the "private club."

For these authors, private club logic is a hybrid that borrows from both editorial logic and flow logic. The content is either continuous or discontinuous, durable or ephemeral, individualized or preprogrammed; commodification can be direct or indirect (subscriptions, supplemental or à la carte payments, advertising). Most importantly, the central role is no longer played by the producer or programmer but by a new actor—the server. From here on, it became possible to increase supply, integrating various products and services that were increasingly related to information or communication rather than culture. This can be seen in the integration of more traditional sectors such as banking, travel agencies, real estate agencies, et cetera.

Two other models were created more recently. The first is the meter model, whose first application can be found in telematics. In this case, the telecommunications operator controls access, organizes interactions and billing, and redistributes profits to data providers. Connection time or consultation volume becomes the accounting unit for usage-based billing in this model (Miège, 2004; Miège & Pajon, 1990).The second model is information brokering (Mœglin, 1998, 2005), which is based on the intermediary activity of comparison monitors, search engines, and data processing systems. These "infomediaries" create profit for themselves in numerous ways: contracts, commission, paid referral, and the sale of keywords, and through the commercialization of information acquired during these transactions or through advertising.

Organizing the structural logics that characterize industrial channels demands substantially more than a simple framework of economic organization, as these logics traverse, shape, and transform the industrial channels through technological evolution. Industrial channels today transcend the organizational tradition of narrow industrial channels that are historically isolated from one another. In this sense, they illuminate well the work of artists, authors, creators, and technicians converging around the process of creation, as well as the strategies of firms of all sizes that participate in production, distribution, and consumer sales (Miège, 2000).

Nevertheless, the multiplication of models has not only given rise to several debates on the standing and relative importance of each of these (whether the model be generic, hybrid, intermediary, or simply peripheral to these generic editorial and flow models), but has also tended to dilute the explicative power of this type of global approach. Thus, according to Mœglin (2008), two conceptualizations of the "model" are in competition here. The first is a Weberian type of ideal, a simplified and systematized representation of a set of traits that are common among several industrial channels.

The second, the Durkheimian model, is an operating mode where the model reflects one sole industrial channel as accurately as possible, including the tendencies and contradictions that are produced by the power relations around it.

Implicitly or explicitly, with a narrow or broadened ideal, and according to either a strictly sectoral vision limited to singular channels or the global visions of structural approaches, the concept of the industrial channel has relied upon a great amount of Francophone academic work on culture, information, and communication industries for over 30 years. It remains to be seen to what measure an equivalent to this type of analysis can be found in English-language literature.

Filière? What are you talking about?

It is important to recognize that the concept of the *filière,* originating, as I've demonstrated, in French industrial economics, does not have an English equivalent. Certainly, the concept of *industry,* notably spurred on by research on the vertical corporate integration, has come to possess a sense that is more inclusive, systematic, and dynamic than the French term, even if industrial organizational theories—especially the canonical S-C-P triptych—tend to limit reasoning to given structures of a sector or group (De Bandt, 1991). Indeed, the majority of English-language work on culture, information, and communication industries relies upon models more or less built upon the industrial organization standard (in film, for example; see Litman, 1998). Elsewhere, stimulated by the developments in contract theory (assimilated into models of coordination between firms), some authors rely upon foundations outside the market and price system, instead focusing their attention on the analysis of exchanges carried out in the framework of bilateral meetings between agents. In particular, Caves (2000), in a book that would later become a classic, uses contract theory as a framework to explain organizational and contractual frameworks found in the structural properties of "creative" industries.[4] If we consider that such an approach is likely to better characterize the modes of coordination within certain industries and to clarify the strategic choices of economic actors, it is more of an intra-industry than an inter-industry approach, something which takes us a considerable distance from the industrial channel approach.

As we can see, we are not going to find an equivalent to the *filière* approach in industrial economics or contract economics. This can instead be found in the work of managers and organizational theorists. The work of Michael Porter (1980, 1985) is at times particularly close to an industrial channel analysis (*analyse en filière*), especially his work on strategic analysis of firms, "value chain," and inter-firm relations. Originally subscribing to the S-C-P paradigm, in 1980, Porter proposed a strategic reflection on competitive analysis: his five forces model, three generic strategies that a firm may use to develop its competitive advantage, and strategic groups.[7] In 1985, he developed the concept of value chain. This concept approaches the firm as something formed by a grouping of activities, each of which produces value, and which together result in the total value created by a firm. Value chain analysis of a firm is thus a method that allows for examining the contribution of the different processes of an organization to its competitive advantage. The "value system" integrates value created by suppliers and clients, permitting for the development of an embryonic analysis of links of interdependence between the firm, its suppliers, and its clients. Thus, a firm

may secure its competitive advantage not only through internal activities, but also through the relationships it maintains with providers and clients.

To a large extent, this approach corresponds to three common points used by De Bandt (1991) to characterize industrial channel analysis: the idea of productive transformation, the grouping of a certain number of industrial sectors brought together by provider-client exchanges, and the recognition of lines of interdependence that give rise to these relationships. However, because it was initiated by a quest for sources of competitive firm advantage, current analysis focuses much more on the company, its processes, and its relationship with other companies directly upstream or downstream. Often, this confines the analysis to a single sector—rather than the entire value system. The contribution of this analysis is much more limited than that of industrial channel approaches, which are considered to be meso-systems and endowed with their own way of being. There is a fair bit of convergence between approaches, but only in their most basic aspects. Nevertheless, it appears that the value chain is sufficiently supple to allow for its contribution to be extended further.

The examination of recent research on the music recording industry is clarifying in this regard. Firstly, it is worth noting that a large part of the recent literature on this subject concerns itself with traditional market-centred economic analysis, seeking, among other things, to determine the impact of copying, peer-to-peer file-sharing, and pirating on record sales (Boorstin, 2004; Liebowitz, 2006a, 2006b; Oberholzer & Strumpf, 2004; Peitz & Waelbroeck, 2004). Some research, however, has attempted to conceptualize the ensemble of industry transformations using a value chain approach to analysis (Leyshon, Webb, French, Thrift, & Crewe, 2005; Peitz & Waelbroeck, 2005; Wunsch-Vincent & Vickery, 2005). The last cited text, in particular, begins by defining the traditional value chain of the music recording industry, considering it as the sequential grouping of activities involving different interrelated actors or sectors (creation, production, reproduction, sales and marketing, distribution, wholesale sales, retail sales) and characterizing it as a dominant "business model".[8] This business model defines the operating mode of the value chain according to revenue and financing sources, contractual relations between agents, methods of commercialization, pricing, and value-sharing between different activities. Next, the authors note the appearance of new methods for accessing music, among them the entry on the scene of new actors deploying business models that change the rules of the game by attempting to delimit a new value chain for online music sales. This value chain relies upon traditional actors and sectors (creation, production, sales, and marketing) as well as new digital asset sectors (operated by online music vendors) and on distributors and distribution networks (various reception networks and models). In this way, new sectors and new players come to join traditional actors and sectors but do not replace them, even if retail sales and the distribution of physical goods are obviously the sectors most severely affected by these changes.

Here, we find an approach that happens to be perfectly compatible with that of the industrial channel (at least in its sectoral version), in that its reasoning is based upon the value chain and business models. Consequently, while the terms and concepts are different and their roots lie in equally different theoretical contexts, there is a con-

fluence between the two approaches. Incidentally, some French authors (Brousseau, 2008; Moreau, 2012) have appropriated the same sort of approach by integrating value chain transformation and business models in their attempts to describe new realities in the music world. In the French context, this is notable because they have done so without making the barest mention of industrial channel theory. Even more interesting is that they have done so in English-language texts. Surely this makes sense when one considers the marked absence of dialogue between Anglophone and Francophone scientific communities, at least in the social sciences and humanities) and the legitimate desire on the part of all researchers that their work be read as widely as possible.

Analysis based on the terms of the industrial channel and the value chain can thus bring to light certain transformations affecting content, the organization of production, distribution, and consumer access, as well as the role of actor strategies in these transformations. Are these attempts, though, capable of accounting for all of the transformations taking place?

Conclusion: Is the concept of the industrial channel still relevant?

The theory of the industrial channel refers to a field of intermediary activity, sometimes referred to as a meso-system, whose working logic cannot be reduced to micro-economic behaviour or to macro-economic behaviour. A product of French industrial economics, the industrial channel (*la filière*) is essentially composed of three common elements: a set of successive operations organized around a common technical substrate; a certain number of interrelated industrial sectors often linked through provider-client exchanges; and a dense set of relationships between the agents that creates fairly strong links of interdependence, which make themselves known through common interests and constraints.

This common core of qualities was broadly applied in the 1970s to the domain of culture, information, and communication, as a way of making sense of industrial reality. Concrete applications of this sort of analysis in France and Québec have developed according to both descriptive and sectoral approaches, and more global ones that have been used to bring together structuring theories that transcend different industrial channels. In both cases, there were important advances in terms of knowledge about and comprehension of the industries in question. While specific in their formulations, industrial channel analyses can be seen to share several common points with analyses based on value chain theory in that they rely upon a perspective that extends beyond the strict framework of the firm or the sector. That said, is this way of thinking still relevant? I pose this question in light of a major critique that has been levelled at this approach for quite some time: the difficulty in determining the precise contours of an industrial channel, which may vary in time and space, as well as according to the authors engaging in this work and their personal objectives. This difficulty results partially in operational constraints, insofar as researchers are often obliged to work with restricted choices and with simplifications in order to successfully conduct their research. As long as those simplifications serve to preserve a coherence between the method and the objectives pursued, though, it is not necessarily a problem. Additionally, the dynamics of the capitalist system within which all of these phenomena take place also complicate things quite seriously.

The process of the commodification and industrialization of culture, information, and communication, in effect, never reaches an end point and is in constant transformation. This process takes on specific forms in this domain that can be explained by the particular characteristics and properties of the cultural, informational, and communicational goods (Ménard, 2005). However, in spite of these common traits, culture, information, and communication are ultimately an economic domain whose activities are quite heterogeneous. For this reason, it is impossible to limit oneself to "an" industrial channel. Instead, this must be addressed as a set of industrial channels which, from a historical perspective, have been developed and structured in a relatively autonomous manner. However, over the years and following cultural, technological, and economic evolution, they have become modified, reconstituted, and expanded and have begun to overlap at certain points in their respective value chains. The structural developments and changes are thus nothing new and can be seen to be at the very historical foundation of these industries. If you need convincing, just look at the links that have been made over the past century between the recording, radio broadcasting, performance, audiovisual, and, more recently, telecommunications and Internet industries.

The difficulty in delimiting precise divisions between industrial channels is all the more relevant given the recent economic reality wherein the processes of content digitization, the lightning-quick development of communication infrastructures and networks, and the multiplication of communication devices and their portability and mobility provoke new transversalities. Information and communication technology simultaneously feeds several different industrial channels, while at the same time imposing the insertion of cultural and informational products (online marketplaces, "infomediaries," social networks) into devices whose primary purpose has been quite different. Furthermore, tendencies of permanent innovation and globalization induce an intensified global competitiveness, leading to new relationships between firms, institutions, and industrial channels, including in terms of location, and the emerging needs of platforms for accessing regional and international levels (Bellandi, Labory, Longhi, & Rochhia, 2010).

It is hardly surprising, in this context, that an abundant literature proposing alternative industrial organizational models has developed over the course of the past 20 years. Without being exhaustive, it is worth mentioning research that has been done on industrial and technological clusters (Porter, 1990), inter-firm networks (Miles & Snow, 1986; Rothwell, 1991), two-sided, or multi-sided, markets (Rochet & Tirole, 2003, 2006), and business ecosystems (Moore, 1993, 1996). These approaches are important because they bring to light the existence of new, and extremely relevant, structural factors. Cluster analysis brings into focus the importance of external economies that are created in territorialized networks, whereby geographic proximity facilitates the creation of synergies between firms, increasing economies of scale and reducing transactional costs. Network or platform analyses have revealed the importance of network externalities that can develop between firms from different sectors when they maintain neither competitive nor provider-client relationships, and when they share knowledge and expertise and valorize cross-side network effects (Daidj, 2010). The theory of busi-

ness ecosystems allows for an understanding of communities of firms belonging to different sectoral activities and organized according to technical specifications (interfaces, protocols, standards, etc.) defined by a dominant firm (Apple, Google, Nintendo, Facebook, etc.), and where the dominant competitive logic is that of "coopetition," defined as a situation where rival firms compete and cooperate simultaneously (Bengtsson & Kock, 2000; Fréry, Gratacap, & Isckia, 2012).

While these approaches may help account for the absent structural effects of industrial channel analyses, in doing so, they too, are somewhat problematic. The concept of the ecosystem, in particular, is founded on an epistemologically dubious ecological metaphor.[9] It thus remains ambiguous and open to multiple interpretations. Further, while different network and multi-sided market analyses help illuminate the behaviour of firms such as Apple or Google, it is important to remember that these forms of organization have integrated themselves into pre-existing structures more than they have made them disappear.

To take an example from the domain of music, today it is impossible to isolate the industrial channel of "sound recording," when the links between producers of sound recordings, live performance producers, music publishers, and managers increasingly and effectively have become a form of business ecosystem into which the activities of production and non-commercial distribution are integrated.[10] An obvious example of this is the arrival of a player like iTunes, which profoundly rattled the established actors in this domain by imposing itself not only as an unavoidable intermediary for distribution and the sale of music in digital formats, but also by imposing its own price and profit-sharing norms. Exactly what ecosystem are we talking about, though? The global music industry ecosystem? The iTunes/Apple ecosystem? How does one explain, using this sort of analysis, that the Québécois music industry is incredibly different from the Anglophone Canadian music industry, and even more different from the one in France, and yet, the role played by iTunes is fairly similar in each case? What do we do with actors such as Archambault or Renaud-Bray, Québécois corporations whose business practices are very close to those of iTunes? Must we consider them as part of the iTunes ecosystem, or do they make up their own? The initial problem of industrial economics—that of delineating analytical "borders"—rears its head again. In this sense, the problem resembles that posed by the integration of local systems and the "old" intermediaries (the *majors*) in the 1980s. The difficulty is even greater today, though, in that there are still customer-supplier relationships that somewhat influence the relationships between the actors involved (links between artists, producers, distributors, vendors), especially at the local level.

Consequently, I do not believe what is happening can be called a paradigm shift, in which one organizational form is substituted for another; the reality is more complex than this. Instead, we should be studying the integration and complexification processes of several forms of economic organization. The fundamental challenge is to integrate them analytically. Even more so than before, we should link the industrial channel approach to the territorialized network actors (for example, the concentration of cultural firms and organizations in urban centres) and the de-territorialized intersector network actors (the globalization of structures and relationships between actors

that has been spun forth by Apple, Amazon, Microsoft, Google, Facebook, etc.). This means accounting for not only direct, indirect, and cross-side network externalities, but also for the plurality of existing competitive approaches. This is a massive undertaking. Let's get down to business, shall we?

Notes

1. This model was initiated by Mason (1939) and Bain (1959) and further developed by Scherer (1970).

2. Pioneering work was initiated in the 1960s by J. Le Bihan on the agri-food sectors, developed in the 1970s, and followed by analyses of the textile sector (J. De Bandt, A. Boudon, Ph. De Bohan), forestry sector (M. Besson & J. Raymond; Y. Betolaud & J. Meo), and others. See the exhaustive literature review by De Bandt (1991, pp. 901-904).

3. Primarily Flichy (1980); Huet, Ion, Lefebvre, Miège, and Peron (1984); Miège, Pajon, and Salaün (1986); Tremblay and Lacroix (1991); and Lacroix and Tremblay (1997).

4. In one fell swoop, Caves expands the field of culture, information, and communication industries to a much larger set. For a critical perspective on this question, please consult the special issue of the journal *tic&société*, "Industries créatives avec ou sans TIC," *4*(2), 2010.

5. Rivalry between competing firms active in the market, the negotiating power of clients, the negotiating power of providers, and the threat of substitute products and potential entrants.

6. Differentiation between products, cost domination, and concentration or niche strategy.

7. The entire set of firms in a sector that follow the same strategy or a neighbouring strategy.

8. Without getting into this question too much, it is worth noting that the concept of the business model is also subject to multiple interpretations. Generally utilized at the firm level, Wunsch-Vincent and Vickery's (2005) text characterizes the dominant industry channel model of the *majors* as a structuring sectoral approach.

9. Criticisms of this sort tend to focus on numerous aspects, most notably time (time scales are much longer in natural ecosystems), territory (natural ecosystems are tightly connected to their territory), competitiveness between ecosystems (which makes no ecological sense at all), and, above all, consciousness and purposefulness (both absent from natural ecosystems) (Daidj, 2010; Fréry, Gratacap, & Isckia, 2012).

10. All the same, this type of multi-sector, or multi-*filière*, organization was already largely present in the Québécois independent music industry in the 1980s, while self-production and self-distribution always occupied an important place. For more on this subject, see Tremblay, Lacroix, Ménard, & Saint-Laurent, 1993.

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