From Marshall McLuhan to Harold Innis,
or From the Global Village to the World Empire[1]

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ABSTRACT *The author presents a personal reading of the pioneering contribution to communication studies made by two Canadian thinkers: Marshall McLuhan and Harold A. Innis. Running counter to the general trend stressing their similarities, he highlights their differences. Rejecting their techological-determinist standpoint, the author proposes a comprehensive and critical summary of their analytical frameworks and methodologies, seeking to assess the influence they have had on his own perspective, tracing the contributions they have made to the evolution of communication research. The author's viewpoint is condensed in the title: we should go back from McLuhan to Innis, from a framework inspired by the global-village metaphor to one based on the expansion of empire.*

KEYWORDS *Innis; McLuhan; Media theory; Technology theory; Globalization*

RÉSUMÉ *L'auteur présente ici une lecture personnelle de la contribution aux études en communication de deux pionniers canadiens, Marshall McLuhan et Harold A. Innis. À rebours des interprétations habituelles qui en soulignent les affinités, il met en évidence leurs différences. Refusant d'emblée leur déterminisme technologique, il propose une synthèse compréhensive et critique de leurs cadres d'analyse et de leurs démarches méthodologiques, cherchant à évaluer l'influence de l'un et de l'autre dans son cheminement personnel, et à retracer les avancées et les dérives auxquelles ils ont contribué dans l'évolution de la recherche en communication. Le titre condense le point de vue de l'auteur: il faut remonter de McLuhan à Innis, passer de la grille de lecture qu'inspire la métaphore du village global à celle qu'appelle l'expansion de l'empire.*

MOTS-CLÉS *Innis; McLuhan; théorie des médias; théorie de la technologie; globalisation*

Marshall McLuhan is by far the best-known and most cited Canadian author in the world. Unfortunately, this reputation has not been accompanied by a thorough knowledge of his work. For the student of communication, this knowledge is usually limited to a rough understanding, often a false one, of the global-village metaphor and of the famous aphorism "the medium is the message." For the critical analyst, McLuhan is too often referred to as the most illustrious exponent of technological determinism and, therefore, hardly deserves further consideration.

Harold A. Innis is not as well known abroad. His books have not been translated into several languages, unlike those of McLuhan, and his influence, with few excep-

tions, has not expanded beyond the Canadian border. Only a few scholars, including the distinguished American James Carey, have given him careful attention and have found inspiration in his work. However, he left an important legacy to Canadian academia among scholars studying communication phenomena, especially those whose approach belongs to the galaxy of political economy.

By virtue of my training and my teaching duties, I have come to read several major works of Innis and McLuhan. While I cannot claim to be an expert on the writings of either of them, both have exercised a profound influence on me at two different times in my career. So I am grateful for having been given the opportunity to publicly acknowledge my debt and to make a critical assessment of what I believe to be their main contributions to communication sciences.

Everyone interested in the relationship between communication technology and social, economic, and political organization; everyone interested in culture in its broad sense (ways of thinking, feeling, knowing); everyone interested in literary and artistic production, distribution, and consumption of cultural, informational, and communicational products; and everyone interested in the impact of media on the lives of individuals and societies should at some point read the works of Harold Innis and Marshall McLuhan.

I intend to proceed here in this article to a critical assessment of McLuhan's and Innis' contributions to communication sciences, outlining their main ideas and working methods. More specifically, as indicated by the title of my article, I address the themes of the global village and of the empire, as they not only are in everyday news, but are central to the work of these two Canadian writers. I conclude with some contextual elements that should allow one to fully appreciate the originality and importance of Innis' and McLuhan's work.

Two pioneers in communications studies

McLuhan's writings were published after those of Innis, and the guru of Toronto explicitly recognized on a number of occasions the pioneering work of the author of *Empire and Communications* and *The Bias of Communication*. But for two personal reasons, I will examine the two in reverse-historical sequence: firstly, because I read McLuhan before Innis; and secondly, because I believe, as the title of my article indicates, that the recent history invites us to ascend from McLuhan's work to that of Innis.

The two Toronto professors share the same interest in the media of communication that they placed at the heart of their work. Innis is often presented as the precursor of McLuhan, especially since McLuhan claimed in his preface to a new edition of *Empire and Communications* (1972) and in his introduction to a reissue of *The Bias of Communication* (1977) that Innis had influenced him.

But, as we shall see, a careful analysis of their work reveals more differences than similarities between the two thinkers. One was trained in economics, the other in literary studies. While Innis followed a traditional academic career, McLuhan chose a more unconventional path. While Innis rigorously applied social-science methods to his research, McLuhan sought to emulate the way artists work. While Innis was interested in the fate of communities, McLuhan was more concerned with the ordinary life of individuals. Innis remained pessimistic until the end of his life regarding the future

of modern societies, believing that that they had been unable to achieve the balance necessary for their survival. McLuhan, however, had moved from a sense of concern about particular aspects of contemporary culture—evident in books such as *The Mechanical Bride* (McLuhan, 1969) and *War and Peace in the Global Village* (McLuhan & Fiore, 1968)—to a certain optimism about the prospects of "electric age," which he expresses more explicitly in *Understanding Media* (McLuhan, 1964) and *The Medium Is the Massage* (McLuhan & Fiore, 1967).

Even though both Canadian authors were fascinated by past societies—McLuhan by the Middle Ages and tribal societies; Innis by the golden age of Pericles' Greece—their work responded to quite different questions and concerns. Innis attempted to determine the conditions of equilibrium and sustainability of societies, empires, and civilizations. By contrast, McLuhan sought to understand the causes, meaning, and direction of changes resulting from the invention of new media and their impact on the lives of modern (or postmodern if you prefer) men and women.

Marshall McLuhan, the oracle

My first contact with the work of McLuhan was in the summer of 1967, a memorable year for all Quebeckers of my generation because Montréal was the host of a world exposition. I had just finished college and was about to undertake undergraduate studies in sociology at Laval University. Reading *The Medium Is the Massage* (McLuhan & Fiore, 1967), then *The Gutenberg Galaxy* (McLuhan, 1962) and *Understanding Media* (McLuhan, 1964), would prove decisive in shaping my master's thesis and my subsequent research in the sociology of communication. I do not know whether McLuhan is the main factor behind my interest in communications, but I am convinced that he has at least greatly contributed to confirming it.

However, I have always had an ambivalent relationship with his work. I have often been uncomfortable with his conceptual imprecisions and his rough assertions. I have always been sceptical of his theory of perception and have never agreed with his technological determinism. However, I have frequently been stimulated by his daring metaphors, his surprising comparisons, and his original interpretations of literary and artistic works. If I had to summarize briefly my relationship with McLuhan, I would say he is a writer with whom I often disagree but who challenges me, questions me, stimulates me, and makes me react. To paraphrase him, I do not agree with the content of his work, but no matter; it is my interaction with the medium that counts! How valuable it is to have an author who drives you to think! I guess McLuhan was proud to play this role. Unfortunately, people are usually prone to repeating his most famous maxims as dogmas, often in the wrong way.

McLuhan was arguably one of the first writers to draw public attention to the existence of communication technologies, their characteristics, and how they work, rather than just to the messages these technologies transmitted. Until the 1960s, researchers had only been interested in specific effects of different types of messages (for purposes of propaganda or advertising), and public debate about the media was obsessed with the morality of the programs that were broadcast. The works of McLuhan came as a timely reminder of the importance of technology dissemination and transmission networks. The style he adopted, consisting of concise and

flamboyant formulae, as well as the dramatic and mysterious aspect of his message, made him an oracle of communications.

The media are revolutionizing the world

All McLuhan's thinking is based on this conviction: the media, which define the environment of man and society, disrupt all aspects of life.

> The medium, or process, of our time—electric technology—is reshaping and restructuring patterns of social interdependence and every aspect of our personal life. It is forcing us to reconsider and reevaluate practically every thought, every action, and every institution formerly taken for granted. Everything is changing —you, your family, your neighbourhood, your education, your job, your government, your relation to "the others." And they're changing dramatically. (McLuhan & Fiore, 1967, p. 8)

The evolution of media is the basic factor determining human history, which McLuhan divides into three periods according to the media that is dominant within each: the culture of orality, the civilization of the printing press (the "Gutenberg Galaxy"), and the civilization of electricity (the "Galaxy of Marconi"). One could find plenty of quotes that have made McLuhan, despite his occasional protestations, one of the most illustrious heralds of technological determinism. In his work, society and the individual are shaped by the media. Social, economic, cultural, or political factors, when referred to, only have a minor impact in comparison with technological overdetermination.

In some pages, McLuhan places great emphasis on the mechanical and industrial aspect of media production: division and hierarchy of operations, interchangeability of components, as well as mechanical reproduction and linear thinking. For example, he wrote: "Printing was the first mechanization of an ancient handicraft and led easily to the further mechanization of all handicrafts" (McLuhan, 1962, p. 58). Also:

> The restructuring of human work and association was shaped by the technique of fragmentation that is the essence of machine technology. The essence of automation technology is the opposite. It is integral and decentralist in depth, just as the machine was fragmentary, centralist, and superficial in its patterning of human relationships. (McLuhan, 1964, p. 23)

I do not know if McLuhan had read the works of the Frankfurt School, especially those of Adorno and Horkheimer. But if he shares with them the statement of a mechanical, industrial culture, he provides a very different analysis of this phenomenon. For researchers of the Frankfurt School, it is the modern communication technologies, invented in the early twentieth century—particularly radio and cinema—that are responsible for the industrialization of culture. For McLuhan, the mechanization of culture is rather the product of the printing press, invented in the fifteenth century. For Adorno & Horkheimer (1974), the homogenization resulting from industrial reproduction threatens the culture of emancipation and the legacy of the Enlightenment, as embodied in the great works of art and literature of past centuries that were largely disseminated thanks to the printing press. For McLuhan, the electric and electronic media invented since the mid–nineteenth century allow a return to multisensory perception and to complex and comprehensive thinking as well as to certain features of

orality, after centuries of linearity, specialization, hierarchy, division, and sectarianism that followed the invention, diffusion, and dominance of the printing press in the civilized world: "Homogenization of men and materials will become the great program of the Gutenberg era, the source of wealth and power unknown to any other time or technology" (McLuhan, 1962, p. 156).

The one-dimensional man, for McLuhan, is not the result of the expansion of mass culture and the capitalist system, as Herbert Marcuse (1969) wrote. On the contrary, for the author of *The Gutenberg Galaxy*, it is basically the product of print culture made possible by the invention of the printing press. It is a complete reversal of perspective in relation to theories of the Frankfurt School.

The media as extensions of the human body

This analysis of the industrialization of culture and communication could have led McLuhan to develop an economic or sociological perspective. He chose instead to interpret this phenomenon within a biological and psychological framework more or less naturalized, elaborating a theory of perception based on the premise that all media are extensions of the human body: "All media are extensions of some human faculty—psychic or physical" (McLuhan & Fiore, 1967, p. 26). Each medium would extend one or the other or a combination of our five senses, or our brain, of which the computer is supposed to be an extension.

The media, according to McLuhan, are more or less hot or cool depending on how many senses they extend. A medium is hot if it extends only one sense, transmits highly defined information, and involves a low participation activity. On the contrary, a medium is cool if it involves many senses at the same time, carries imprecise information, and requires a high level of receptors' involvement. It is a relatively simple definition, but its application is very complex. This is certainly the case in the work of McLuhan, where the media appear more or less hot or cool depending on the point of comparison. Thus, for example, alphabetic writing is hotter than handwritten ideographic writing but cooler than alphabetic writing in print. Radio is sometimes presented as cool, sometimes as hot, et cetera.

The media that favour one sense overheat it and dull one's other senses. As a result, perception is atrophied, fragmented, unbalanced. This is what has happened in the Gutenberg era. The overuse of the eye entailed by book culture has led to the linearity, hierarchy, specialization, and division of knowledge, as well as to the separation between science and art and between thought and action. In McLuhan's theory, the invention of the printing press was the major watershed in history.

The theory of perception developed by McLuhan, which has little scientific basis, has led him to attractive but false statements, as when he claims that television is a "touch" medium, radically different from cinema because the cathodic tube projects the image on the viewer's skin, tattooing it, while the movie projector projects its image on a screen in front of the viewer. I have never met a specialist in perception who could confirm this!

Similarly, when McLuhan says that writing is a hot medium because it is an extension of the eye, the ultimate producer of linearity and segmentation in his theory, he puts his finger in his own eye, if you will forgive my making such an easy joke.

According to scientific theories of perception, vision works first by capturing gestalts (large forms) rather than by sequential scanning, and it proceeds only secondarily to a systematic exploration of the observed object. These are the same eyes that perceive images and texts. If writing is linear, it is because it is a substituting code reflecting spoken words, which are perceived in a sequence, one after the other, not because it appeals to the eye. The understanding of speech, which calls to the ear and not to the eye, is linear and not global. Isolated reading is, of course, a communicative situation very different from face-to-face conversation. But there is much more than opposition between sight and hearing. The contexts of communication are different, and the dimensions to be considered beyond the purely sensory characteristics include psychological, sociological, and environmental factors.

The stained glass, gloss, and metaphor as working tools

To properly assess McLuhan's work, one must remember that he was a professor of literature, rather than a scientist—and was in neither the physical sciences nor the social sciences. McLuhan was a specialist in English literature, especially that of sixteenth-century Britain. He wrote his doctoral thesis on the rhetoric of Thomas Nashe, a famous Elizabethan satirist born in 1567 who died around 1601. McLuhan became interested in modern media, initially, only to better understand his students, who he felt were quite remote from his own sensibility.

McLuhan was raised in a Protestant family and converted to Catholicism in adulthood. I do not know the extent to which his conversion played a role in shaping his thinking. But we must mention at least one point, given the importance of dogma in the Catholic religion: McLuhan's technological determinism was incompatible with his faith, a Catholicism rejecting predestination—even the very idea of destiny—and the fate of men depending only on divine will and human freedom. McLuhan had to find a way to reconcile his thought with the doctrine of the Roman Catholic Church, particularly its social doctrine on communications. He found a way out in the following formula: "There is absolutely no inevitability as long as there is a willingness to contemplate what is happening" (McLuhan & Fiore, 1967, p. 25). In other words, the media create an environment that determines the existence of human beings, but if they can become aware of this environment, they can escape from it. He does not specify how it happens, which remains rather magical, but finally, respect for the doctrine is safe!

McLuhan, we have said, is a literary scholar. One can regularly find traces of this in his works, most notably in the form of numerous references to William Shakespeare and James Joyce, among others. A Renaissance expert, he surprisingly looks for the principles of his method in the period that preceded it—namely, the Middle Ages. Why? To follow a method coherent with his media theory. Given that the printing press has produced the kind of linear reasoning—analytical, fragmented, and sequential—that is not able to account for the complexity and comprehensiveness of the Marconi era, we must find tools to understand and explain more recent phenomena elsewhere. McLuhan seeks and finds them in the pre-Gutenberg thought.

Refusing to write a record that sets out an orderly structure of argument, the oracle of Toronto proceeds by aphorisms and metaphors dealing with many different themes, gloss after gloss, without any apparent logical structure. The various sections of his

books can be read in any order. To speak of his method, McLuhan likes to refer to mosaic and stained glass. As opposed to systematic and linear alphabetic writing, he prefers light that penetrates the object and reconstructs it piece after piece, like a mosaic. In contrast with the reflected light coming *from* an external point illuminating the object (*light on*), he draws attention to the light passing *through* the object, like through a cathedral's windows (*light through*): "This theme enters into the very texture of medieval thought and sensibility as in the technique of the 'gloss' to release the light from within the text, the technique of the illumination as light through not on, and the very mode of Gothic architecture itself" (McLuhan, 1962, p. 131).

In other words, McLuhan chose a scholastic approach rather than a Cartesian one, giving preference to interpretation rather than explanation. Considering such a return to ways of thinking dating back before the Reformation, one cannot help but refer again to his conversion to Catholicism.

McLuhan does not explain; he explores. He liked to say he had no viewpoint, unlike his opponents who, according to him, opposed his views because they could not depart from their points of view. The position he adopted was consistent with his theory of the media but left no room for critical debate. One could take it or leave it. This perhaps explains why McLuhan has engendered the most virulent opposition alongside the most uncritical partisanship.

Harold Innis, the scribe

My initiation into the work of Harold Innis came much later than into that of Marshall McLuhan. It began in the late 70s, when the initial work leading to the creation of the Canadian Communication Association put me in regular contact with Canadian colleagues, especially my friend Liora Salter, now retired from York University. The lack of a French translation of Innis' books is probably largely responsible for his low profile in the Francophone world.

McLuhan was not a traditional scholar, and he never got the recognition from his colleagues to which he aspired. Innis, by contrast, represents the very model of a Canadian university intellectual. Long after his death, he remained a benchmark for many Canadian academics. In many ways, Innis embodied a typical representative of the book culture of the Gutenberg era, as identified by McLuhan. The figure evoked by his character is that of the studious scribe rather than that of a charismatic prophet.

No doubt, Harold Innis' training in the social sciences made his communications approach more credible in my opinion than that of McLuhan. I am primarily a sociologist, fascinated by history and the economy. Innis was primarily an economist, passionate about history. His early work focused on Canadian economies based on the exploitation and export of raw materials, especially fur, fish, and lumber. His findings on the central role played by the transportation infrastructure gradually led him to the study of communications.

The media as instruments of control over time and space

Innis was one of the first researchers to highlight the strategic importance of communications in the creation and survival of empires since the very beginnings of civilization. Innis' theory is structured according to basic concepts such as time and space.

Every society must have control over a territory and find the means to survive and re-produce. According to Innis, all media show bias: characteristics that allow control of space or time. Every empire or society that claims a degree of continuity must strike a balance between a medium that promotes control of space and a medium that secures its survival over time. Finally, according to Innis, the operation of the mainstream media promotes the creation of monopolies of knowledge, served by a caste or a group of priests, scribes, and scholars to whom the authority grants a number of privileges.

There is no record of any theory of perception in the work of Harold Innis. The media are not designed as extensions of human sense organs. The bias they imply—in terms of their characteristics—depends on the nature of their material support (heavy or light, durable or ephemeral, et cetera), on their greater or lesser ease of access (scarcity of production areas of papyrus, decentralization of production of paper, et cetera), on their production conditions (slow stone carving, timeliness of signs on clay that dries quickly, plenty of nearby water supplies for production of parchment, et cetera), and on the knowledge necessary for this production.

Some media, because of their lightness and their ease of production and trans-portation, prove to be useful tools, effective—indeed essential—to the political and administrative control necessary for the operation of an empire dominating a vast ter-ritory. This is the case of papyrus and paper, for example. Others, in contrast, have traits that make them more suitable for transmission over time. The monopoly over the latter has been historically assumed by religious powers. Their production is long and difficult, but their lifespan is measured in centuries and millennia. This is the case of writing engraved on stone (Innis, 1972).

Communication and society

Armed with this basic set of concepts (time, space, bias, balance, monopoly of knowl-edge), Innis undertook a careful study of historical records (as found largely in sec-ondary sources) in an effort to validate his assumptions. The results are set out in his two books on communications, *The Bias of Communication* (1951) and *Empire and Communications* (1950). Outstanding among the great empires are that of ancient Egypt, based on the dual use of stone and papyrus; that of the Greece of Pericles, rep-resenting a good mix of oral tradition and written civilization; and that of Byzantium, which combined the advantages of papyrus and parchment.

If McLuhan was obsessed with the resulting changes that followed the invention of a new medium, Innis appears to have been especially concerned about balance and stability. His analysis, of course, was dealing with change, which arises in the periphery of the empire, the territory under the influence of mainstream media. But he was pri-marily seeking to establish the conditions for societies to control the space where they live and survive over time: "It has seemed to me that the subject of communication offers possibilities in that it occupies a crucial position in the organization and admin-istration of government and in turn of empires and of Western civilization" (Innis, 1972, p. 5).

The thought of Innis is completely dominated by the assumption of equilibrium, dear to many economists. The societies he valued most are those that have achieved stability, thereby allowing them to span centuries. Innis especially admired past pre-

industrial societies in which media were few and the pace of change was rather slow. One should not forget that he was writing this in the first half of the twentieth century. There was very little known about television, even less about the computer, and nothing about digital networks. We may rightly wonder whether his hypotheses still make sense, whether they can be transposed to the study of modern societies in which there is a wealth of media and in which change is the only stable value. Is balance possible in these societies? Is it necessary?

Moreover, can we still categorize the modern media as space- or time-biased? McLuhan was right; electricity has completely changed the world. And as noted by James Carey (1989), since the invention of the electric telegraph, the relationship between communications and transportation has been completely reversed. Not only has the transmission of messages become autonomous from the means of physical transportation of goods, but it is now the transmission of messages that regulates the flow of material goods and people.

Electrical and electronic media allow for the control of space as never before in history. But should we conclude that these media are unsuitable for preservation and transmission in the long term? Most messages are ephemeral, but this short lifespan is more dependent on their relative utility than the characteristics of the media. Consider, for example, the inscriptions on digital discs. Do they not have the same capacity to last over centuries as inscriptions carved in stone?

Despite these reservations, James Carey's work (1989) has shown how interesting the application of a conceptual framework inspired by Innis could be.

Innis' method

The method of Harold Innis has nothing to do with the one deployed by McLuhan. Innis, as we noted, was trained in the social sciences. His working method is based on the careful study of history books, the accumulation of clues and evidence, and the cross-checking of information sources. While inevitably using metaphors like any other author, he is careful to use them as a method of exploration. And if the reading of his texts is often difficult, it is largely because their understanding requires extensive knowledge.

As it puts communication technology at the heart of historical evolution, Innis' thought may indeed be regarded as deterministic. The technological determinism underlying the model of the information society, in which the evolution of information and communication technology is presented as the key factor of change, constitutes an explanation that is necessarily reductionist, unable to take into account the different actors' strategies and the resulting conflicts. It is also a viewpoint that ignores all the problems and challenges facing contemporary societies that most likely do not result directly or primarily from the development of information and communication technology, such as social inequality, poverty, marginality, and exclusion.

A theory of communication that aims to explain social phenomena must necessarily be linked to a theory of production of material goods (i.e., the transformation of the world through the production of wealth) and a theory of power relations. In short, it should be articulated to a political economy of communication. This imperative is even more important in contemporary society, where communication, from the cre-

ation of products to their distribution, is widely and deeply embedded in the capitalist mode of production.

The work of Harold Innis is a fine example of the need to relate communication sciences to other social sciences, especially history, sociology, economics, and political science. If Innis' thesis is built around the central role played by communication technologies in the formation and survival of empires, the concepts of monopoly or oligopoly of knowledge and the balance between space-biased media and time-biased media—implementing concepts borrowed from economics—fulfill a vital role in developing his line of argument. And even though the starting point for his thought leans toward a certain technological determinism, the historical analysis he has undertaken puts great emphasis on the concepts of interest and power, as well as on the accessibility and distribution of resources. This results in an explanatory model more complex than could have been foreseen from his initial hypotheses. In addition, Innis reminds us at the outset of the status of his assertions and assumptions, warning his readers against a possible personal bias: "But I must confess at this point a bias which has led me to give particular attention to this subject. In studies of Canadian economic history or of the economic history of the French, British, and American empires, I have been influenced by a phenomenon strikingly evident in Canada, which for that reason I have perhaps overemphasized" (Innis, 1972, p. 5); "In any case I have tried to present my bias in order that you may be on your guard" (Innis, 1972, p. 6); "The generalizations which we have just noted must be modified in relation to particular empires" (Innis, 1972, p. 11).

This attitude is in sharp contrast with that of McLuhan, who claimed not to have a viewpoint and to be free of bias!

The legacy of Innis and McLuhan

Are Innis' and McLuhan's works outdated, or are they still relevant? To what extent can they still be used to study contemporary communication? What can we learn from each of them? I have already made some remarks criticizing some of their assumptions, concepts, and methods. I will not go into details, but let me emphasize that their contributions to the study of communications phenomena seems to me fundamental in at least three respects. I will also call attention to the extent to which their predictions are relevant to the global village and the fate of empires.

Media research

Innis and McLuhan, each in his own way, highlighted the pivotal role played by communication in the organization of societies and the shaping of everyday life. This fact is universally acknowledged, which is an undeniable achievement. One cannot understand and explain the evolution of modern and postmodern societies without taking into account changes in areas of information and communication. No one now disputes that communication technologies play a key role in organizing human communities along economic, political, cultural, and social lines.

This achievement often comes, however, with a corollary: technological determinism. Even though this premise is commonly denied, it is one that is widely shared in communication studies. Manuel Castells provides an excellent example in his trilogy

on the information age. He describes three main factors to explain the structural eco-nomic, social, and political changes experienced by Western societies from the late 1960s to the mid-1970s: 1) the revolution in information technology, 2) the crisis of capitalism and statism, and 3) the effervescence of social movements such as environ-mentalism and feminism. But among the three, he wrote, it is the revolution in com-munication technology that has played the key role (Castells, 1998, 1999a, 1999b; Tremblay, 2003).

It is to be hoped that communication researchers, who are tackling the difficult task of explaining the overall changes that affect the societies in which we live, adopt an approach that accounts for the complexity of the factors involved.

The contributions of Innis and McLuhan to communication science seems to me crucial in another respect. In the communication sector, as in other areas, the most profound changes that accompany technical innovation can be properly understood only in the long term. Empirical research in the short term, sophisticated and elaborate as it can be, is a very limited tool for the identification of underlying trends.

In this regard, we can consider three different social-scientific approaches, each having its usefulness and disadvantages: longitudinal studies, historical works, and prospective methods. Longitudinal studies can be defined and controlled according to specific goals, but they are very expensive. Historical studies are more affordable, but one can never assume that their results are transferable to the present and to the future. Prospective studies can explore the universe of possibilities, but their reliability is questionable; the success rate of predictions, including those made by leading ex-perts, rarely exceeds that of a random selection.

The works of Innis and McLuhan demonstrate the merit of using historical and prospective approaches insofar as one identifies their limitations and refrains from concluding that the lessons of the past can be projected in the future. Nevertheless, one cannot hold the view that futuristic projections have the same value as scientific observations. Also, if we ignore these precautions, abuses are possible.

The contributions of Innis and McLuhan to the study of communications are sig-nificant in a third respect. In analyzing the impact of the media themselves rather than the effect of the messages they convey, they introduced into mass-media research, as it developed after World War II in the U.S.A., the materiality of the object in its tech-nical characteristics, the conditions of its production and use, and its integration in space and time. We find in the works of neither scholar the foundations of a theory of innovation or a theory of how information and communication technologies are used socially. Everett Rogers' diffusionism, the translation theory of Callon and Latour, the contemporary theories of appropriation, and the communication-for-development theory are not the direct descendants of the work of the two Canadian researchers. But because of the publications of Innis and McLuhan in the 50s and 60s, it is no longer possible to consider media as neutral instruments, suitable for all purposes and in all circumstances. Even without sharing the premise of technological determinism, we cannot think of media as merely the means to something else. The works of Innis and McLuhan have definitively established that each medium offers a specific config-

uration of opportunities and constraints that any theory of communications should take into account.

From the global village to the world empire

McLuhan believed that the new technologies of information and communication transform the world into one big village. Innis, for his part, came to the conclusion that the imbalance in favour of space-biased media caused by modern technology would make it impossible to create new lasting empires. What about those predictions?

In *The Gutenberg Galaxy*, published more than 40 years ago, McLuhan foreshadowed the advent of the village-world: "Such is the character of a village or, since electric media, such is also the character of global village. And it is the advertising and PR community that is most aware of this basic new dimension of global interdependence" (McLuhan, 1962, p. 31).

And he forcefully repeated thereafter: "The new electronic interdependence recreates the world in the image of a global village" (McLuhan & Fiore, 1967, p. 67).

We will gladly agree with McLuhan on the growing interdependence of the world resulting from improved transportation and increased economic exchanges as well as expanded communication networks, a movement that was initiated in the fifteenth century with the great discoveries and the rise of commercial capitalism. But does the metaphor of the village, which has been very popular all around the world for decades, help us to better understand the process of globalization? After careful consideration, my answer is clearly "no," and I think it is neither the accuracy of the image nor its ability to represent the world that explains its popularity.

The metaphor of the village is not very appropriate for representing the growing interdependence of the world for at least two good reasons. First, the image of the village poorly describes this ongoing process, because networks of exchange and communication largely link cities rather than villages. Globalization is primarily a matter of major urban areas on the planet. The inhabitants of villages and the countryside are either poorly integrated or are kept isolated from one another.

The second reason, more fundamentally, that the metaphor of the village seems to be inadequate is that it suggests that interdependence would be greater in a village than in a city. The truth is quite the opposite. It is indeed well known since the pioneering work in sociology and political economy starting with Émile Durkheim that interdependence among the members of a community follows from the division of labour. The more elaborate is the latter, the closer is the former. And everyone knows that the division of labour is more complex in a large city than it is in a small village. The city inhabitant is much more dependent on his/her fellows than is a villager. He or she does not know them personally, unlike the villagers who can name almost anyone. But that is another matter.

In fact, the metaphor of the global village is likely very popular because it refers to meanings other than those related to real ties of interdependence that develop in the modern world. The village, for city dwellers—among whom we find most of the readers and followers of McLuhan's global village—refers to the stereotype of the quiet and pleasant place in idyllic surroundings, free of noise and pollution, with harmonious homes and a small, supportive community offering love and friendship to its

members. The myth of the village has the sublimated features of what Tönnies referred to as a community, as opposed to a society (Wirth, 1926). The global-village metaphor works because it expresses the wild hope that the future will lead to the reproduction of an idealized past. The problem is that this is not the kind of interdependence that results from the expansion of networks of exchange and communication.

We are much closer to reality with another of McLuhan's aphorisms, although it is inevitably stamped by its technological determinism: "Every new technology necessitates a new war" (McLuhan & Fiore, 1967, p. 98).

One recalls immediately, of course, the Gulf War of 1990 and the 2003 war in Iraq that allowed Americans to test their "smart" weapons and to demonstrate their substantial technological advantage over all other countries on the planet. Should we speak of an American empire, as articulated by Hardt & Negri (2000)?

The issue certainly deserves to be raised and debated. Is this empire, whose overwhelming military superiority allows it to assert itself as the only superpower in the world, likely to last, or is it already in decline, as suggested in particular by the filmmaker Denys Arcand, in his Oscar-winning film *The Barbarian Invasions* (Arcand, 2003)?[2]

Harold Innis would probably share the diagnosis of Denys Arcand. According to his theory, the Americans undoubtedly have the right technology to control vast territories distant from each other, but one wonders whether they can count on media to ensure the continuity of values underlying the U.S. system. The American empire will fall one day, as have all previous ones, but when? Only history, of course, will answer these questions. The doomsday scenarios about American hegemony do not, however, seem more convincing than those that predicted the death of the capitalist system in the 1960s or the end of history in the 1990s. The Americans probably no longer believe with the same fervour in the dream of regeneration that animated their ancestors. But the core values of liberalism, essential to the functioning of their economic and social system, are still transmitted from one generation to the next. Moreover, the importance of religion in the United States should not be underestimated. Should we not even fear the rise of fundamentalism?

But let us set aside these futurological musings and return to how American hegemony is exercised today. James Carey (1989) wrote that the invention of the electric telegraph allowed the passage from colonialism—a decentralized form of domination in which the slowness of transportation and communications necessarily implies a certain autonomy of the local governor—to modern imperialism, within which the speed of communication means that the influence of the central government is felt daily. Computers and telecommunications networks have strengthened this trend significantly, to the point that one wonders if we are not witnessing the emergence of a new form of imperialism, which would not necessitate, in most cases, the establishment of a sprawling political administration, very costly to the central government. Is this is a new type of empire based on the exercise of power through networks, as Hardt & Negri (2000) have argued?

The notion of cultural imperialism, as popularized by Herbert Schiller (1976) in the 1970s, has been severely criticized for relying—grossly, it was claimed—on a theory

of conspiracy and manipulation. Trivializing its importance, critics have claimed that his theory has ignored the freedom and autonomy of receivers. In the present time, when everyone is talking about globalization, it would nevertheless be useful to re-evaluate Schiller's assumptions, particularly in light of Innis' worries about the trans-mission of values. Did a political scientist and advisor to the White House, Joseph Nye (1990), not seriously propose in 1990 a strategy of "soft power," which incorporated much of what Schiller meant by cultural imperialism (Mattelart & Tremblay, 2003)?

It seems, however, that the U.S. administration still can choose another way, a more brutal one, as was seen during the 2003 intervention in Iraq. Is cultural hege-mony really an alternative to the use of armed force, or is it only the other side of the same policy?

Conclusion

In examining the thought and approaches of the two pioneers in communication re-search in Canada, I have raised some questions about the relevance of their findings with a view to encouraging further reflection on their ideas. But to fully understand the work of Innis and McLuhan, one would still need to situate it within the socio-eco-nomic context of the period following World War II, one that was fertile for the major changes in all areas that took place; these can only be mentioned briefly. They include the advent of television in the 50s—which rapidly became the most popular and most powerful media of communication—and the creation of UNESCO, which signified a new recognition, at the global level, of the role of culture, education, and communica-tion in social life as well as in personal development.

In order to assess the intellectual contributions of Innis and McLuhan, one should also examine their work in relation to that of other authors in the same period in other parts of the world. During the time when the two Canadian thinkers were putting tech-nology at the centre of their study of communication, most U.S. researchers were con-tinuing their empirical research on the effects of messages. Others were applying evolutionary and diffusionist theories to how communications could be used for de-velopment. At the same time that Adorno and Horkheimer were criticizing the enter-tainment industry, Shannon and Weaver were developing the mathematical theory of information and Wiener was building the foundations of cybernetics.

Western Europeans, particularly the French (who were influenced by structural-ism in linguistics and anthropology) worked on meanings and made semiotics *the* sci-ence of communication. In the United Kingdom, Hoggart, Williams, and Thompson, who had been studying popular culture and adult education, inspired initially by the Marxist approach to philosophy, helped create the Cultural Studies movement.

Finally, in order to understand the impact of Innis' and McLuhan's works, one must wonder why theories with so little empirical grounding, so little orientation to action, and such little transferabilty into concrete steps, have enjoyed such a great success among public and private managers. Why, for example—and I will stop here—has tech-nological determinism received so much praise from policymakers, technocrats, and administrators of all kinds?

Notes

1. An earlier version of this article has been published in Portuguese (Tremblay, 2003). A second version of this article has appeared in French (Tremblay, 2007).

2. This is in line with one of his previous films, entitled *The Decline of the American Empire* (Arcand, 1986), shot some 20 years earlier—a movie that won the prize for best screenplay at the Cannes Film Festival.

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