Harold Adams Innis and Marshall McLuhan

By JAMES W. CAREY

Commenting on the abstruse and controversial scholarship of Harold Innis and Marshall McLuhan is a rather audacious and perhaps impertinent undertaking. It is also a thankless task. McLuhan has often argued that the attempt to analyze, classify, and criticize scholarship—the intent of my paper—is not only illegitimate; it also represents the dead hand of an obsolete tradition of scholarship. I am sensitive to treading forbidden waters in this paper. But I am content to let history or something else be the judge of what is the proper or only method of scholarship, as I at least am uncomfortable pronouncing on such weighty matters.

Despite the dangers in scrutinizing the work of Innis and McLuhan, I think students of the history of mass communication must assume the risks of analysis. Innis and McLuhan, alone among students of human society, make the history of the mass media central to the history of civilization at large. Both see the media not merely as technical appurtenances to society but as crucial determinants of the social fabric. For them, the history of the mass media is not just another avenue of historical research; rather it is another way of writing the history of Western civilization. Innis and McLuhan do not so much describe history as present a theory of history or, less grandiloquently, a theory of social change in the West. It is a theory which anchors social change in the transformations in

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the media of communication on which this civilization has been progressively dependent. Therefore, an assessment of the meaning and reasonableness of the positions they represent seems to me to be a principal task for students of the history of mass communication.

In this paper, I would like to suggest an interpretation of Innis and McLuhan and to compare the kinds of arguments they offer on the role of the mass media in social change. Second, I want to offer a critical commentary of their positions, principally directed at the relative merits of their arguments in organizing the historical material in question. Finally, I want to recommend a direction for future research on the role of the media in social change and to offer some reflections on the social meaning of the scholarship of Harold Innis and Marshall McLuhan.

Harold Adams Innis was a Canadian economist and historian who devoted most of his scholarly life to producing marvelously detailed studies of Canadian industries—the fur trading industry, the cod fisheries, the Canadian Pacific Railway, for example. During the last decade of his life (Innis died in 1952), he undertook an extensive analysis of all forms of human communication and produced two major works—*The Bias of Communication* and *Empire and Communications*—and two important collections of essays, *Changing Concepts of Time* and *Political Economy and the Modern State*. His interest in communications was not, however, independent of his concerns for economic history. Rather, the former grew out of the latter. In his studies of the economic history of Canada, Innis was confronted by two important questions: (1) What are the underlying causes of change in social organization, defined broadly to include both culture and social institutions? (2) What are the conditions which promote stability in any society? Stability here is defined as both the capacity to adapt to changing realities in politics and the economy and also as the capacity to preserve the integrity of culture, the continuity of attitude, sentiment, and morality upon which civilization is based. Further, Innis wanted to answer those questions in a manner that would capture not only the major currents of history in the West but also the eddies and tributaries, streams and backwaters of social change.¹

¹The literary style adopted by Innis to convey the complexity of social change
Innis felt that the answer to his first question—the question of the source of social change—was to be found in technological innovation. He was, like McLuhan, a technological determinist, though unlike McLuhan a rather soft determinist. Innis and McLuhan agree that while there are various kinds of technology—military, industrial, administrative—these technologies were not equal in their impact on society or in their ontological status. For Innis, the technology of communication was central to all other technology. He does not make at all clear why this should be so. However, let me make this suggestion. There are presumably two reasons for the centrality of communications technology—one logical, one historical. Innis assumes that man stands in a unique, symbiotic relationship to his technology. In McLuhan's phrase, technology is literally an extension of man, as the ax is an extension of the hand, the wheel of the foot. Most instruments are attempts to extend man's physical capacity, a capacity shared with other animals. Communications technology, on the other hand, is an extension of thought, of consciousness, of man's unique perceptual capacities. Thus communication media, broadly used to include all modes of symbolic representation, are literally extensions of mind.

Innis also suggests that historically fundamental breakthroughs in technology are first applied to the process of communication. The age of mechanics was ushered in by the printing press, the age of electronics by the telegraph. The explanation for this historical fact Innis derived from a conception of society based upon a model of

is a principal barrier to any adequate understanding of his work. He amasses on each page such an enormous body of fact, fact rarely summarized or generalized, that one becomes quickly lost in the thicket of data. Further, Innis disdains the conventions of written book scholarship; indeed, he attempts to break out of what he takes to be these limiting conventions by presenting an apparently disconnected kaleidoscope of fact and observation. He avoids arguing in a precise, serial order and instead, like the proprietor of a psychedelic delicatessen, flashes onto the page historic events widely separated in space and time. With such a method, he attempts to capture both the complexities of social existence and its multidimensional change. Nowhere does he present an orderly, systematic argument (except perhaps in the first and last chapters of Empire and Communications) depending rather on the reader to impose order, to capture not merely the fact of history but a vision of the dynamics of historic change.
competition appropriated from economics and extended to all social institutions. And in this competitive model, competition for new means of communication was a principal axis of the competitive struggle. Innis argued that the available media of communication influence very strongly the forms of social organization that are possible. The media thus influence the kinds of human associations that can develop in any period. Because these patterns of association are not independent of the knowledge men have of themselves and others—indeed, consciousness is built on these associations—control of communications implies control of both consciousness and social organization. Thus, whenever a medium of communication and the groups which control the media have a hegemony in society, Innis assumes that a principal axis of competition will be the search for competing media of communication. New media are designed to undercut existing centers of power and to facilitate the creation of new patterns of association and the articulation of new forms of knowledge. I will return to this point later. Let me only note now that Innis assumed that disenfranchised groups in society would lead the search for new forms of technology in seeking to compete for some form of social power.

The bulk of Innis' work was devoted to analyzing the kinds of control inherent in communications media. He considered, as near as one can tell, all forms of communication from speech through printing, including what he took to be the four dominant pre-printing media—clay, papyrus, parchment, and paper. With each of these media he also considered the types of script employed and the kinds of writing instruments used. Innis argued that various stages of Western civilization could be characterized by the dominance of a particular medium of communication. The medium had a determinate influence on the form of social organization typical of the stage of society and on the character of the culture of that stage. Further, the succession of stages in Western civilization could be seen in terms of a competition between media of communication for dominance. The results of this competition among media progressively transformed the character of social institutions and the nature of culture.

I think it important to note Innis' emphasis on both culture and social organization. He was concerned not only with the ways in which culture and institutions were interrelated but also the sense
in which they were *both* epiphenomena of communications technology. Usually the social history of the West takes either the route of August Comte, emphasizing the progressive transformation of culture from the theological to the metaphysical to the positivistic, or the route taken by Lewis Mumford, emphasizing the transformations in social organization from the tribe to the town to the city. Innis, however, attempts to marry these two traditions into a unified view of social change. Moreover, he attaches changes in both social organization and culture to changes in the technology of communication. The generality of Innis’ argument is seldom recognized, I think, because of a failure to appreciate the meaning of the phrase “the bias of communication” and the dual sense in which he defines his two principal variables, space and time.

Innis argues that any given medium of communication is biased in terms of the control of time or space. Media which are durable and difficult to transport—parchment, clay, and stone—are time-binding or time-biased. Media which are light and less durable are space-binding or spatially biased. For example, paper and papyrus are space-binding, for they are light, easily transportable, can be moved across space with reasonable speed and great accuracy, and they thus favor administration over vast distance.

Any given medium will bias social organization, for it will favor the growth of certain kinds of interests and institutions at the expense of others and will also impose on these institutions a form of organization. Media which are space-binding facilitate and encourage the growth of empire, encourage a concern with expansion and with the present, and thus favor the hegemony of secular political authority. Space-binding media encourage the growth of the state, the military, and decentralized and expansionist institutions. Time-binding media foster concern with history and tradition, have little capacity for expansion of secular authority, and thus favor the growth of religion, of hierarchical organization, and of contractionist institutions. The hegemony of either religion or the state imposes a characteristic pattern on all secondary institutions, such as education, and also leads to a search for competing, alternative modes of communication to undercut this hegemony. Thus, the dynamic of social change resided in the search for alternative forms of communication alternately supporting the kingdom of God or man.

At the level of social structure, a time bias meant an emphasis
upon religion, hierarchy, and contraction, whereas a space bias meant an emphasis upon the state, decentralization, and expansion. But the terms "time" and "space" also had a cultural meaning.

In cultural terms, time meant the sacred, the moral, the historical; space the present and the future, the technical and the secular. As media of communication favored the growth of certain kinds of institutions, it also assured the domination of the culture characteristic of those institutions. On the cultural level, his principal contrast was between the oral and written traditions. Let me try to develop the contrast.

Although speech is not the only means of communication in traditional societies, it certainly is the principal means. Traditional societies are organized in terms of, or are at least severely constrained by, certain features of speech. For example, spoken language can traverse only relatively short distances without being altered and distorted, giving rise to dialects. Speech not only moves over short distances but travels slowly compared with other means of communication. Speech also has a low capacity for storage; there is no way of preserving information except by storing it in the memories of individuals or by symbolizing it in some material form. Life in traditional societies must be collective, communal, and celebrative as the medium of communication requires it to be.

Innis argues that speech encourages the development of a society with a strong temporal bias, a society which focuses on the past and which emphasizes tradition, which attempts to conserve and preserve the existing stock of knowledge and values. Such societies are likely to have limited conceptions of space, conceptions restricted to the village or geographical area currently occupied by the tribe. Space beyond that is invested with magical qualities, frequently being the home of the gods; for example, cargo cults. While the mind of primitive man can traverse extraordinary reaches of time, it is radically limited in traversing space. The hegemony of speech is likely to also lead to magical beliefs in language. Words become icons, they do not represent things, they are themselves things. The care, nurture, and preservation of language is likely to occupy much collective energy of the society.

Oral cultures, then, are time-binding cultures. They have consequently a limited capacity for technical change. The imbalance toward time rooted in the available means of communication empha-
sizes the cohesion of people in the present by their "remembrances of things past." With media such as speech, Innis associated tradition, the sacred, and the institutionalization of magic and religion.

Speech as the dominant mode of communication gave rise to an oral tradition, a tradition that Innis not only described but admired. By an oral tradition Innis meant a "selection from the history of a people of a series of related events, culturally defined as significant, and their transmission from generation to generation." The recitation of artistic works within the oral tradition was a social ceremony which linked audiences to the past and celebrated their social cohesion in the present. While individual performers would modify an oral tradition to make it more servicable in present circumstances, they began with the tradition and thus became indissolubly linked to it.

Furthermore, the oral tradition was flexible and persistent. Linked as it was to the collective and communal life of a people, built into their linguistic habits and modes of symbolic expression, the oral tradition was difficult to destroy. Through endless repetition an oral tradition "created recognized standards and lasting moral and social institutions; it built up the soul of social organization and maintained their continuity. . . ."

Oral traditions and time-binding media led to the growth of a culture oriented toward a sacred tradition, which built consensus on the sharing of mutually affirmed and celebrated attitudes and values, and placed morals and metaphysics at the center of civilization.

Written traditions, in general, led to quite different cultures. They were usually space-binding and favored the growth of political authority and secular institutions and a culture appropriate to them. Let me warn you that Innis did not admire oral cultures and derogate written ones. Some of his language could easily lead one to that conclusion, but, as I hope to show, that was decidedly not the case.

Written traditions and their appropriate culture ground relations among men not on tradition but on attachment to secular authority. Rather than emphasizing the temporal relations among kinship, written tradition emphasizes spatial relations. Rather than emphasizing the past, it emphasizes the present and the future, particularly the future of empire. Rather than emphasizing knowledge grounded in moral order, it emphasizes the technical order and favors the
growth of science and technical knowledge. Whereas the character of storage and reception of the oral tradition favor continuity over time, the written tradition favors discontinuity in time though continuity over space.

What Innis recognized was the hostility that seemed inevitably to develop between the written and the oral tradition. The innovation of writing would first lead to a recording of the oral tradition. It would thus freeze it and make it of interest to subsequent generations largely for antiquarian reasons. The written tradition, after its initial contact with the oral, would go its own way. It would favor change and innovation and progressive attenuation from the past as a residue of knowledge, values, and sentiment. The hostility between these traditions and between time-binding and space-binding media generally led to the creation of a monopoly of knowledge. He used the term monopoly in a straightforward economic sense. Very simply, Innis contended that the culture of the favored institution would infiltrate every aspect of social life and ultimately drive out, define as illegitimate, or radically transform competing traditions. Only knowledge that conformed to the concerns and cultural predispositions of the dominant medium would persist. In a written tradition, knowledge must be technical, secular, and future-oriented for it to be defined as legitimate or recognized as valid.

By now it should be obvious that Innis defined as the central problem of social science and social change the same problem which was the focus of Max Weber's work: the problem of authority. Innis wanted to know what, in general, determines the location of ultimate authority in a society and what will be recognized as authoritative knowledge. His answer was this: That media of communication, depending on their bias, confer monopolies of authority and knowledge on the state, the technical order, and civil law or on religion, the sacred order, and moral law.²

²Innis was interested in all forms of monopolies of knowledge. In his teaching he was interested in the tendency of social science research to become focused around one man—a Keynes, Marx, or Freud—or one narrow attitude of speculation. He himself preferred an open and vigorous competition of viewpoints and felt that the reliance of Western education on the book severely reduced the possibility of vigorous debate and discourse in education. See Donald Creighton, Harold Adams Innis, Portrait of a Scholar (Toronto: University of Toronto Press, 1957).
Innis believed that an overemphasis or monopoly of either time or space, religion or the state, the moral or the technical, was the principal dynamic of the rise and fall of empire. Time and space were thus related as conjugant variables in which the progressive presence of one led to the progressive absence of the other. The bias toward time or space produced instability in society. A stable society was possible only with the development of mechanisms that preserved both temporal and spatial orientations, that preserved competition between religion and the state, and that preserved independence and tension between the moral and the technical. In *The Bias of Communication* Innis commented that

in western civilization a stable society is dependent on an appreciation of a proper balance between the concepts of space and time. We are concerned with control over vast areas of space but also over vast stretches of time. We must appraise civilization in relation to its territory and in relation to its duration. The character of the medium of communication tends to create a bias in civilization favorable to an overemphasis on the time concept or on the space concept and only at rare intervals are the biases offset by the influence of another medium and stability achieved.

Classical Greece was such a rare interval. The relative isolation of Greece from the older civilizations of Egypt and the Near East enabled her to develop an oral tradition. The written tradition was slowly introduced into Greece from these neighboring cultures, but it did not destroy the oral tradition. The tradition was committed to writing, but the oral tradition continued to flourish. For example, the dialogue remained the principal instrument of Greek culture, and an oral literature constituted the common moral consciousness. The written tradition with its spatial emphasis encouraged the growth of political authority and allowed Greece to deal with problems of administration. Eventually, writing triumphed over the oral tradition in the latter part of the fifth century B.C., and the spatial bias gave rise to a divisive individualism.

Generalizing from the experience of classical Greece, Innis argued that a healthy society requires competition not only in the marketplace but also in ideas, traditions, and institutions. Typically, media favor the development of cultural and institutional monopolies. Unless media favoring time and space exist as independent traditions offsetting and checking the biases of one another, the society
will be dominated by a narrow monopoly. In such biased states, politics becomes sacralized or religion secularized; science destroys morality or morality emasculates science; tradition gives way to the notion of progress or chronic change obliterates tradition.

The history of the modern West, Innis argues, is the history of a bias of communication and a monopoly of knowledge founded on print. In one of his most quoted statements, Innis characterized modern Western history as beginning with temporal organization and ending with spatial organization. The introduction of printing attacked the temporal monopoly of the medieval church. Printing fostered the growth of nationalism and empire; it favored the extension of society in space. It encouraged the growth of bureaucracy and militarism, science and secular authority. Printing infiltrated all institutions, being the major force in creating what is currently celebrated as "the secular society." Not only did print destroy the oral tradition but it also drove underground the principal concerns of the oral tradition—morals, values, and metaphysics. While print did not destroy religion, it did, as Max Weber has argued, transform religion to meet the needs of the state and economy. Ultimately, the obsession with space, with the nation, with the moment, exposed the relativity of all values and led Western civilization, in Innis' eyes, to the brink of nihilism. The death of the oral tradition, the demise of concern with time, not only shifted the source of authority from the church to the state and of ultimate knowledge from religion to science; it also insisted on a transformation of religious concerns and language from the theological and sacred to the political and secular.

Innis viewed the rampaging nationalism of the twentieth century with anger and anguish, attitudes not untypical of contemporary intellectuals. But his emotion-charged writing should not obscure his central argument. The primary effect of changes in communication media is on the form of social organization that can be supported. Social organization produces a characteristic culture which constitutes the predispositions of individuals. The centrality of communication media to both culture and social structure implies that the principal axis of change, of the rise and fall of empire, will be alternations in the technologies of communication upon which society is principally reliant.
There are many similarities between the thought of Innis and that of Marshall McLuhan. Although I do not intend to obscure those similarities, I would like to emphasize, at least in this paper, some significant points of difference. The question I am asking is this: What is absolutely central to Innis' argument and how does it compare with the central notion in McLuhan's work? Although McLuhan has occasionally characterized his work as an extension of Innis', I want to suggest that McLuhan has taken a relatively minor but recurring theme of Innis' work (perhaps only a suggestion) and made it central to his entire argument. Conversely, McLuhan has neglected or ignored the principal argument developed by Innis.

Both Innis and McLuhan agree that historically "the things on which words were written down count more than the words themselves"; that is, the medium is the message. Starting from this proposition, they engage in quite different kinds of intellectual bookkeeping, however, and are seized by quite different kinds of implications.

Both McLuhan and Innis assume the centrality of communication technology; where they differ is in the principal kinds of effects they see deriving from this technology. Whereas Innis sees communication technology principally affecting social organization and culture, McLuhan sees its principal effect on sensory organization and thought. McLuhan has much to say about perception and thought but little to say about institutions; Innis says much about institutions and little about perception and thought.

While McLuhan is intellectually linked to Innis, I think he can be more clearly and usefully tied to a line of speculation in sociolinguistics usually referred to as the Sapir-Whorf hypothesis.

The Sapir-Whorf hypothesis proposes that the language a speaker uses has a determining influence on the character of his thought. While it is a truism that men think with and through language, Edward Sapir and Benjamin Lee Whorf proposed that the very structure of reality—if I may use that grandiose and overworked phrase—is presented to individuals through language. When a person acquires a language he not only acquires a way of talking but also a way of seeing, a way of organizing experience, a way of discriminating the real world. Language, so the argument goes, has
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built into its grammar and lexicon the very structure of perception. Individuals discriminate objects and events in terms of the vocabulary provided by language. Further, individuals derive their sense of time, their patterns of classifications, their categories for persons, their perception of action, in terms of the tenses, the genders, the pronouns, the pluralizations that are possible in their language. This argument, then, largely reduces the structure of perception and thought to the structure of language.

McLuhan adopts the form of argument provided by the Sapir-Whorf hypothesis with two important modifications. First, he adopts a quite unorthodox characterization of the grammar of a language. Second, he extends the "grammatical analysis" to modes of communication such as print and television which are normally not treated as types of languages.

McLuhan does not view the grammar of a medium in terms of the formal properties of language, the parts of speech or morphemes, normally utilized in such an analysis. Instead, he argues that the grammar of a medium derives from the particular mixture of the senses that an individual characteristically uses in the utilization of the medium. For example, language—or better, speech—is the first of the mass media. It is a device for externalizing thought and for fixing and sharing perceptions. As a means of communication, speech elicits a particular orchestration of the sense. While speech is an oral phenomenon and gives rise to "ear-oriented cultures" (cultures in which people more easily believe what they hear than what they see), oral communication synthesizes or brings into play other sensual faculties. For example, in conversation men are aware not only of the sound of words but also of the visual properties of the speaker and the setting of the tactile qualities of various elements of the setting, and even certain olfactory properties of the person and the situation. These various faculties constitute parallel and simultaneous modes of communication, and thus McLuhan concludes that oral cultures synthesize these various modalities, elicit them all or bring them all into play in a situation utilizing all the sensory apparatus of the person. Oral cultures, then, involve the simultaneous interplay of sight, sound, touch, and smell and thus produce, in McLuhan's view, a depth of involvement in life as the principal communications medium—oral speech—simultaneously activates
all the sensory faculties through which men acquire knowledge and share feeling.

However, speech is not the only mass medium, nor must it necessarily be the dominant mass medium. In technologically advanced societies, print, broadcasting, and film can replace speech as the dominant mode through which knowledge and feeling are communicated. In such societies speech does not disappear, but it assumes the characteristics of the dominant medium. For example, in literate communities oral traditions disappear and the content of spoken communication is the written tradition. Speech no longer follows its own laws. Rather it is governed by the laws of the written tradition. This means not only that the "content" of speech is what has previously been written but that the cadence and imagery of everyday speech is the cadence and imagery of writing. In literate communities, men have difficulty believing that the rich, muscular, graphic, almost multidimensional speech of Oscar Lewis' illiterate Mexican peasants was produced by such "culturally deprived" persons. But for McLuhan speech as an oral tradition, simultaneously utilizing many modes of communication, is almost exclusively the province of the illiterate.

McLuhan starts from the biological availability of parallel modes for the production and reception of messages. These modes—sight, touch, sound, and smell—do not exist independently but are interdependent with one another. Thus, to alter the capacity of one of the modes changes the total relations among the senses and thus alters the way in which individuals organize experience and fix perception. All this is clear enough. To remove one sense from a person leads frequently to the strengthening of the discriminatory powers of the other senses and thus to a rearrangement of not only the senses but of the kind of experience a person has. Blindness leads to an increasing reliance on and increasing power of smell and touch as well as hearing as modes of awareness. Loss of hearing particularly increases one's reliance on sight. But, McLuhan argues, the ratios between the senses and the power of the senses is affected by more than physical impairment or, to use his term, amputation. Media of communication also lead to the amputation of the senses. Media of communication also encourage the over-reliance on one sense faculty to the impairment or disuse of others. And thus, media
of communication impart to persons a particular way of organizing experience and a particular way of knowing and understanding the world in which they travel.

Modes of communication, including speech, are, then, devices for fixing perception and organizing experience. Print, by its technological nature, has built into it a grammar for organizing experience, and its grammar is found in the particular ratio of sensory qualities it elicits in its users. All communications media are, therefore, extensions of man, or, better, are extensions of some mix of the sensory capacities of man. Speech is such an extension and thus the first mass medium. As an extension of man, it casts individuals in a unique, symbiotic relation to the dominant mode of communication in a culture. This symbiosis is not restricted to speech but extends to whatever medium of communication dominates a culture. This extension is by way of projecting certain sensory capacities of the individual. As I have mentioned, speech involves an extension and development of all the senses. Other media, however, are more partial in their appeal to the senses. The exploitation of a particular communications technology fixes particular sensory relations in members of society. By fixing such a relation, it determines a society's world view; that is, it stipulates a characteristic way of organizing experience. It thus determines the forms of knowledge, the structure of perception, and the sensory equipment attuned to absorb reality.

Media of communication, consequently, are vast social metaphors that not only transmit information but determine what is knowledge; that not only orient us to the world but tell us what kind of world exists; that not only excite and delight our sense but, by altering the ratio of sensory equipment that we use, actually change our character.

This is, I think, the core of McLuhan's argument. It can be most conveniently viewed as an attempt, albeit a creative and imaginative attempt, to extend the Sapir-Whorf hypothesis to include all forms of social communication.

Let me attempt to illustrate this abstruse argument with McLuhan's analysis of print. Print, the dominant means of communication in the West, depends on phonetic writing. Phonetic writing translated the oral into the visual; that is, it took sounds and translated them into visual symbols. Printing enormously extended and
speeded up this process of translation, turning societies historically dependent upon the ear as the principal source of knowledge into societies dependent upon the eye. Print cultures are cultures in which seeing is believing, in which oral traditions are translated into written form, in which men have difficulty believing or remembering oral speech—names, stories, legends—unless they first see it written. In short, in print cultures knowledge is acquired and experience is confirmed by sight: as they say, by seeing it in writing. Men confirm their impressions of Saturday's football game by reading about it in Sunday morning's paper.

Besides making us dependent on the eye, printing imposes a particular logic on the organization of visual experience. Print organizes reality into discrete, uniform, harmonious, causal relations. The visual arrangement of the printed page becomes a perceptual model by which all reality is organized. The mental set of print—the desire to break things down into elementary units (words), the tendency to see reality in discrete units, to find causal relations and linear serial order (left to right arrangement of the page), to find orderly structure in nature (the orderly geometry of the printed page)—is transferred to all other social activities. Thus, science and government, art and architecture, work and education become organized in terms of the implicit assumption built into the dominant medium of communication.

Moreover, print encourages individualism and specialization. To live in an oral culture, one acquires knowledge only in contact with other people, in terms of communal activities. Printing, however, allows individuals to withdraw, to contemplate and meditate outside of communal activities. Print thus encourages privatization, the lonely scholar, and the development of private, individual points of view.

McLuhan thus concludes that printing detribalizes man. It removes him from the necessity of participating in a tightly knit oral culture. In a notion apparently taken from T. S. Eliot, McLuhan contends that print disassociates the senses, separating sight from sound; encourages a private and withdrawn existence; and supports the growth of specialization.

Above all, print leads to nationalism, for it allows for the visual apprehension of the mother tongue and through maps a visual appre-
hension of the nation. Printing allows the vernacular to be standard-
ized and the mother tongue to be universalized through education.

While the book ushered in the age of print, developments such as
newspapers and magazines have only intensified the implications
of print: extreme visual nationalism, specialist technology and occu-
pations, individualism and private points of view.

By such argument McLuhan insists that the meaning and effect
of any communications innovation is to be found in the way it struc-
tures thought and perception. The excitement which currently sur-
rounds McLuhan derives from his extension of this argument to the
newer media of communication, particularly television, and the effect
these newer media have on the venerated tradition of print and on
the mental life of contemporary man.

For McLuhan, the civilization based on print is dead. A science
based on its assumptions, which searches for causal relations, encour-
ages orderly, non-contradictory argument, fosters the specialization
and compartmentalization of knowledge, is obsolete. Education
which relies on the book and the lecture—its merely reading from
written script—and the traditional modes of sciences is likewise
obsolete.

Print culture was doomed, so McLuhan argues, by the innova-
tion of telegraphy, the first of the electronic media. Radio further
undercut the hegemony of print, but the triumph of electronic com-
munication over print awaited the permeation of the entire society
by television. We are now observing, McLuhan concludes, the first
generation weaned on television for whom the book and printing
are secondary, remote, and ephemeral kinds of media. It is not only
that television, as Storm Jameson has recently argued, leads to a de-
valuation of the written word. Television is not only another means
for transmitting information; it is also a radically new way of organ-
izing experience. Unlike print, television is not merely an eye me-
dium but utilizes a much broader range of sensory equipment. That
television marries sight and sound is obvious; but McLuhan also
argues that television is a tactile medium as well. Television, as a
result of the scanning system on which it operates, is capable of con-
vveying or eliciting a sense of touch. Thus, in the apprehension of
television not only the eye but the ear and the hand are brought into
play. Television re-orchestrates the senses; it engages, if you will,
the whole man, the entire range of sensory qualities of the person.
Moreover, television is, in one of McLuhan's inimitable phrases, a cool medium. By this McLuhan means only that television, like the cartoon and line drawing, is low in information. You don't merely watch a television screen. You engage it; you are forced to add information to complete the message. The capacity of the screen to transmit information is determined by the number of lines in the scanning system. In American television the scanning system is particularly low, 525 lines, and thus the medium is low in information relative to say, movies. Thus the viewer must get involved; he must fill in auditory, visual, and tactile cues for the message on the screen to be completed. Because television appeals to all the senses, because it is a cool or active, participational medium in front of which a viewer cannot remain passive, a culture in which television is the dominant medium will produce a person characteristically different than will a culture based on print.

McLuhan observes we are now witnessing in maturity the first generation who were suckled on television, who acquired the conventions of television long before it acquired traditional print literacy. The generational gap we now observe by contrasting the withdrawn, private, specializing student of the fifties with the active, involved, generalist student of the sixties McLuhan rests at the door of television. For the characteristic differences in these generations are paralleled by the differences between print and television as devices of communication. The desire of students for involvement and participation, for talking rather than reading, for seminars rather than lectures, for action rather than reflection, in short for participation and involvement rather than withdrawal and observation he ascribes to the re-orchestration of the senses provoked by television.

The conflict between generations of which we are now so acutely aware is ultimately a conflict between a generation bred on the book and a generation bred on the tube and related forms of electronic communication. The generational gap involves much more than politics and education, of course. In every area of life McLuhan observes youth asserting forms of behavior, demanding kinds of experience, which engage the total self. Dance and dress, music and hair styles, must not only have a "look"; they must also have a "sound" and above all a "touch." They must appeal to all the senses simultaneously. It is not only that youth wants experience; it wants experience that unifies rather than dissociates the senses. Moreover,
in the new styles of literature which destroy all the conventions of print, in the new argots which destroy all the conventions of traditional grammar, in the new styles of political action which demean the traditionally radical forms of ideology and organization, in the demands for change in education, in music, in art, in dance, in dress, McLuhan sees the re-tribalization of man restoring him to the integrated condition of the oral culture in which the sensual capacities of men are again made whole.

This re-tribalization presumably involves the extension in space of the entire nervous system. Sight, hearing, and tactility derive from a nervous system originally contained within the skin. Each of the media has in turn extended these mechanisms, these aspects of the nervous system, beyond the skin. They have externalized them. The book and camera extend the eye, radio and the listening device extend the ear, television extends not only the eye and the ear but also the hand. Electric circuitry in general represents an extension of the entire nervous system. Think, for example, of the imagery of the computer with its network of wires and nodes linked to a television system. This is the sense in which communications media are extensions of man—extending with the aid of the computer the entire sensory and neurological system of the person in space, heightening the capacity of the organism to receive and digest information, literally turning the person now extended by his technology into an information processing system.

It is through such an analysis that McLuhan arrives at or expresses his central point: every medium of communication possesses a logic or grammar which constitutes a set of devices for organizing experience. The logic or grammar of each medium which dominates an age impresses itself on the users of the medium, thus dictating what is defined as truth and knowledge. Communication media, then, determine not only what one thinks about but literally how one thinks.

In the exposition of this notion McLuhan, of course, treats more than print and television. These are merely the endpoints in an exposition that includes commentary on films, radio, cartoons, light bulbs, political candidates, and virtually every other technique and folly of man. But in each case he attempts to determine the grammar inherent in the technology of the medium. While McLuhan nor-
mally defines the grammar of a medium in terms of the sense ratios it elicits, he frequently resorts to the more simplified method of designating media as "hot" or "cold." A hot medium is one that presents a lot of information in one sense; it bombards the receiver with information or, in another favorite phrase, is in high definition. A cool medium, or one in low definition, is a medium that presents relatively little information; the receiver must complete the image, must add values to what is presented to him and is thus more involving or participational. The halftone photo in four colors is visually hot; the cartoon is visually cool. Print is a hot medium, television a cool medium. The quality of having temperature applies also to persons and cultures, dance and dress, autos and sports. Temperature, then, is another way of designating grammar. However, it is the least satisfactory of all McLuhan's concepts and arguments. This is unfortunate, because for most critics it is the terms "hot" and "cool" which are taken to be McLuhan's principal contribution to the study of media, and a lot of unanswerable critical fire can be heaped on McLuhan at this point. The terms "hot" and "cool" are applied in very haphazard ways. Media that are hot one minute seem to be cool another. It is impossible to tell if temperature is a absolute property of a medium or whether a medium is hot or cool relative only to some other medium. And the classification of media into these categories seems to be always quite arbitrary.

McLuhan's argument does not, however, stand or fall on the usage of the terms "hot" and "cool." One can simply agree that while media do possess an inherent grammar, the exact structure and logic of this grammar has not, as yet, been particularly well worked out. Some latitude should be allowed McLuhan at this point anyway. He obviously is doing a good deal of experimenting with the classification of media. There is little resemblance between the classification one finds in the "first edition" of Understanding Media (a report to the United States Office of Education, 1960) and that in the McGraw-Hill edition currently in circulation. His argument must, I think, be assessed in terms of its most general point: men stand in a symbiotic relation to all media, and consequently the dominant mode of communication dictates the character of perception and through perception the structure of mind.
At this point I would like to make some critical notes on the arguments that have been presented. My only reluctance in doing so is that Innis and McLuhan present rather convenient targets for criticism if only because their arguments are so unconventional. Also, criticism, let us be reminded, is easy. It is still harder to write novels than to write reviews. Further, not only the structure of McLuhan’s argument but also his current popularity stand as an incautious invitation to criticism and thus most critical fire that I might muster would inevitably be aimed at McLuhan. Marshall McLuhan is, after all, not only a social analyst; he is also a prophet, a phenomenon, a happening, a social movement. His work has given rise to an ideology—mcluhanisme—and a mass movement producing seminars, clubs, art exhibits, and conferences in his name.

Besides, I’m convinced that a technical critique of McLuhan is a rather useless undertaking. If Robert Merton cannot dent his armor by pointing out inconsistencies in his argument and lacunae in his observations, I’m quite sure that my own lesser intellectual luminosity shall have little effect on McLuhan or his devotees. I am thinking here of such inconsistencies as the fact that while he is a serious critic of traditional logic and rationality, his argument is mechanistic, built upon linear causality, and illustrative of all the deficiencies of this type of analysis. His terminology is ill-defined and inconsistently used and maddeningly obtuse. More seriously, he has a view of mind, directly adopted from the tabula rasa of John Locke, that is not only simple-minded but contradicted by much of the work currently being done in linguistics, psychology, and psychotherapy. But I sense that such criticism is analogous to criticizing Christianity by pointing out contradictions in the Bible.

McLuhan is beyond criticism not only because he defines such activity as illegitimate but also because his work does not lend itself to critical commentary. It is a mixture of whimsy, pun, and innuendo. These things are all right in themselves, but unfortunately one cannot tell what he is serious about and what is mere whimsy. His sentences are not observations or assertions but, in his own language, “probes.” Unfortunately, a probe is a neutral instrument about which one can say nothing but congratulate its inquisitiveness. One may resist his probes or yield to their delights, but to quarrel with them is rather beside the point.
Despite these disclaimers, a manageable enterprise remains. I would like to judge McLuhan's argument not in absolute or universal terms but only in relation to the work of Innis. If we can for the moment grant the central assumption on the role of communications technology in social change, who has presented us with the more powerful and useful argument? This is a question both manageable and germane to the paper. Less germane but at least of importance to me is the concluding question I would like to raise: what is it that makes McLuhan an acceptable prophet of our times? I think the answer to this question will also shed some important light on the argument of Innis.

I have suggested that Innis argued that the most visible and important effects of media technology were on social organization and through social organization on culture. Radio and television, I assume Innis would argue, are light media that quickly and easily transmit large amounts of information. Moreover, electronic signals, while highly perishable, are difficult to control. Unlike print, electronic media do not recognize national boundaries, as the Canadians have discovered. Thus, the effect of the electronic media is to extend the spatial bias of print, to make new forms of human association possible, and to foreshorten one's sense of time. As spatially biased media, radio and television, even when used by religious institutions, contribute to the growing hegemony of secular authority and to the extension of political influence in space. Further, they have contributed to the weakening of tradition and to the secularization of religion. Or so Innis might have it.

McLuhan treats quite a different effect of the media—the effect of the media not on social organization but on sensory organization. As I have previously mentioned, Innis and McLuhan do treat both kinds of effects. The effect of the media on sensory organization is a minor but persistent theme in Innis' writings. McLuhan also treats

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8Here are some examples culled at random from Innis' writings: "Scholars were concerned with letters rather than sounds and linguistic instruction emphasized eye philology rather than ear philology." (Empire and Communications, p. 159) "The discovery of printing in the middle of the 15th century implied the beginning of a return to a type of civilization dominated by the eye rather than the ear." (The Bias of Communication, p. 138) "Introduction of the alphabet meant a concern with sound rather than with sight or with the
the effects of media on social organization, as the previous discussion of nationalism, specialization, science, and education illustrated. However, the major direction and thus the implication of the two arguments is quite different. Moreover, McLuhan, deliberately or otherwise, confuses these two quite different effects of media technology. Much of his evidence is not directed at nor does it support his analysis of the sensory bias of media. Rather it supports Innis’ claim for the institutional or organizational bias of media. For example, xerography, a process which very much interests McLuhan, is an important innovation in communication. While the innovation is based upon discoveries in electronic technology, its usual product nonetheless is the orderly, linear type of the printed page. The effect of xerography is not on sensory organization. However, by increasing the rate of speed at which information can be transmitted and reproduced, by allowing for the rapid recombination of printed materials, xerography does encourage the creation of novel vehicles of communication and novel groups of readers. That is, xerography encourages or at least permits certain structural reorganizations of social groups. Developments in offset printing have a similar effect.

My argument is simply that the most visible effects of communications technology are on social organization and not on sensory organization. Much of McLuhan’s evidence can be more plausibly, directly, and productively used in support of the form of argument offered by Innis. I will subsequently return to this point. Here I much want to suggest that Innis provides a more plausible accounting of the principal phenomena in question and is of greater usefulness to students of the history of mass communication. My preferences for Innis are partly aesthetic; they stem partly from a simple aversion to much of what McLuhan represents. In addition I feel that Innis’ argument will be ultimately productive of more significant scholarship. Finally, I feel that McLuhan’s position awaits the same fate as the Sapir-Whorf hypothesis to which it is so closely tied. The Sapir-Whorf hypothesis, while it is a perfectly plausible notion, ear rather than the eye.” (The Bias of Communication, pp. 40–41) “In oral intercourse the eye, ear and brain acted together in busy co-operation and rivalry each eliciting, stimulating and supplementing the other.” (The Bias of Communication, p. 106) “The ear and the concern with time began to have its influence on the arts concerned with eye and space.” (The Bias of Communication, p. 110)
has never turned out to be productive of much insight or research or to have particularly advanced the study of language and perception.

The same fate awaits McLuhan, I fear, and stems from an argumentative similarity between the positions. For McLuhan states his case on very general grounds and defends it on very narrow grounds. Because he views the effect of the media as principally acting on the senses, his entire argument ultimately rests on the narrow grounds of the psychology of perception. This is, I think, a very weak foundation to support such a vast superstructure. This is not only because many of his comments on the psychology of perception are highly questionable, but also because given what we know about the complexity of behavior, it is hard to understand how such a vast range of social phenomena are to be so simply explained. When McLuhan is writing about the oral tradition and about print, areas where he is backed by the extensive scholarship of Innis, his work has a cogency and integration and is sensitive to the complexity of the problems at hand (for example, in large portions of The Gutenberg Galaxy). When he probes beyond these shores into the world of television and the computer, the water gets very muddy indeed, for here he attempts to explain every twitch in contemporary society on the basis of the sensory reorganization brought about by the media. I do not have the time, nor the knowledge, to examine McLuhan's theory of perception. However, a couple of problems should be pointed out. The phenomenon of sensory closure upon which McLuhan's theory is built is a very primitive perceptual mechanism. It is found in all experiments on perception, though not always in predictable ways. Moreover, the gestalt movement in psychology was based upon the operation of this mechanism, though it was largely limited to the study of visual closure. An obvious strength of McLuhan's argument is his isolation of this primitive and important perceptual phenomenon and his generalization of the phenomenon beyond visual closure to include the relations among all the senses. However, the assumption that the pattern of sensory closure is dictated by the structure of the media seems to be an unnecessary and unwarranted oversimplification.

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4Here I am indebted to Sidney Robinovitch of the University of Illinois.
For example, McLuhan severely overestimates the inflexibility of media of communication. While any given medium confronts an artist with certain inherent constraints, media still allow wide latitude for innovation and artistic manipulation. McLuhan does not consider, for example, that any medium can be used, in any historical period, either discursively or presentationally. Speech and writing, while they have a bias toward discursive presentation, can also be used presentationally. It is difficult to imagine why McLuhan does not utilize the distinction between presentational and discursive forms, a distinction of some importance in modern aesthetic theory.\(^5\) Elements in a presentational form have no individuated meaning but take on meaning only in relation to the whole. Elements in a discursive form have individuated meaning and the elements can be combined by formal rules. Ordinary language is highly discursive, but it can be used presentationally. And "this is the distinguishing mark of poetry. The significance of a poetic symbol can be appreciated only in the context of the entire poem."

The same can be said of other forms. A given medium of communication may favor discursive presentation or the presentation of perceptual gestalts, but they can be and are manipulated in either genre. These media are, of course, constraining forces: they limit and control to some degree the expressive capacities of men. But the history of these forms is the history of attempts to overcome the deficiencies seemingly inherent in media of communication, to make the media bend to thought and imagination rather than allowing thought and imagination to be imprisoned by them. Thus, metaphor and simile, incongruity and hyperbole, personification and irony, are all devices, imaginative and productive devices, for overcoming the formal constraints of speech and writing. Similarly, while print, radio and television, and movies have inherent technological constraints, artists within these media have constantly struggled to overcome the limitations of the form through invention of new modes of symbolic representation. Think only of the history of film editing.

While McLuhan frequently excludes artists from the laws of

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perceptual determinism, he does not exclude audiences. However, I want to suggest that devices such as metaphor, simile, and personification are used not only by artists but are part of the linguistic repertoire of every five-year-old child. They are devices through which all of us attempt to overcome the inherent constraints of speech. There is, I suspect, much more freedom in perception and invention in everyday communication than McLuhan is willing to admit. To propose the audience as an empty vessel, a black box, that has no significant autonomous existence but is, instead, filled or wired up by sources exclusively external to the self is not only to deny an enormous amount of everyday evidence but also to casually dismiss a significant amount of reasonably sound scientific evidence. The empty organism view of the self is, I think, not only pernicious but also unsupportable from the evidence at hand on perception.

But the most important criticism to make of McLuhan is that much of the argument he wants to make and most of the contemporary phenomena he wants to explain—particularly the conflict between generations—can be more effectively handled within the framework provided by Innis. Furthermore, the utilization of the perspective of Innis opens up, I think, a number of important and researchable questions and puts the argument once more in a historical context.

In this final section let me tentatively attempt to bring Innis’ argument up to date; that is, to extend it from the early 1950’s, where he left it, into the 1960’s. You will remember that Innis argued that Western history began with temporal bias and was ending with spatial bias. I want to suggest that contemporary developments in the electronic media have intensified this spatial bias. Electronic media, particularly with the innovation of satellite broadcasting, increasingly transcend all national boundaries, thereby weakening nationalism or at least tending to undercut the parochial limitations of national identifications. Further, such media are a potent force in generating a more universal, world-wide culture which is urban, secular, and, in Innis’ terms, unstable.

Let me put it this way. Among primitive societies and in earlier stages of Western history, relatively small discontinuities in space led to vast differences in culture and social organization. Tribal societies separated by a hundred miles could have entirely different
forms of economic, political, and religious life and grossly dissimilar systems of expressive symbolism, myth, and ritual. However, within these societies there was a great continuity of culture and social structure over generations. Forms of life changed slowly, of course, and the attitudes, hopes, fears, and aspirations of a boy of fourteen and a man of sixty were remarkably similar. This does not mean there were no conflicts between age groups in such societies. Such conflicts are probably inevitable if only because of biological changes accompanying aging. However, the conflict occurred within a system of shared attitudes and values and within a system of mutual dependencies across age groups. Such societies were based on an oral tradition with a strong temporal bias. The continuity of culture was maintained by a shared, collective system of ritual and by the continuity of passage rites marking off the entrance of individuals into various stages of the life cycle. In such a world, then, there were vast differences between societies but relatively little variation between generations within a given society. In Innis’ terms, temporal media produce vast continuity in time and great discontinuity in space.

The spatial bias of modern media, initiated by print but radically extended by film and the electronic media, has reversed the relations between time and space. Space in the modern world progressively disappears as a differentiating factor. As space becomes more continuous, regional variations in culture and social structure become ground down. Further, as I have already suggested and as other modern writers have persuasively argued, the rise of a world-wide urban civilization built upon the speed and extensiveness of travel and electronic media have progressively diminished—though they have come nowhere near eliminating—spatial, transnational variation in culture and social structure. It is this fact which has led Claude Levi-Strauss to re-echo the traditional keen of the anthropologist that primitive societies must be intensively studied now because they are rapidly disappearing.

If in fact the spatial bias of contemporary media does lead to a progressive reduction of regional variation within nations and transnational variation between nations, one must not assume that differences between groups are being obliterated as some mass society theorists characterize the process of homogenization. As Levi-Strauss has argued, there may be a principle of diversity built into the species
or, from our standpoint, built into the organization of man’s communication. I am suggesting that the axis of diversity shifts from a spatial or structural dimension to a temporal or generational dimension. If in primitive societies time is continuous and space discontinuous, in modern societies as space becomes continuous time becomes discontinuous. In what seems like an ironic twist of language, spatially biased media obliterate space while temporally biased media obliterate time. The spatial bias of modern media, which have eliminated many spatial variations in culture and social structure, have simultaneously intensified the differences between generations within the same society. The differences in modern society between a boy of fourteen and a man of sixty—differences in language and values, symbols and meanings—are enormous. It is modern societies that face the problem of generations. It is not only that conflict across age groups continues but there are gross discontinuities between generations in culture and symbols, perhaps best symbolized by the phrase, “Don’t trust anyone over thirty.” This inversion in the relation of time and space in contemporary society seems to me a logical extension of Innis’ argument. The inversion depends on the observation that spatially biased media obliterate space and lead men to live in a non-spatial world. Simultaneously, such media fragment time and make it progressively discontinuous. Temporal media, on the other hand, obliterate time, lead men to live in a non-temporal world, but fragment space.

I think it is important to remember that Innis argued that media possessed a bias or a predisposition toward time or space. He was not arguing for some simple mono-causality. Thus, if generations have become an increasingly important axis of diversity, in modern society, the causes include factors other than the media but to which the media are linked in a syndrome. I cannot, of course, attempt to trace out all such factors here, but a couple should be mentioned.

6Of course, generational discontinuity is a universal of history. Normally, these discontinuities are explained by the periodic and random shocks to a system caused by relatively unsystematic variables such as wars, depressions, famines, etc. I am suggesting that generational discontinuity no longer depends on these random shocks to the system but that generational discontinuities are now endogenous factors, built into the normal operation of the system and very much “caused” by the bias of contemporary communication.
if only for their suggestive value. The importance of generations and the phenomena of generational discontinuity is linked most directly to the rate of technical change. In traditional societies, societies that change very slowly, the old are likely to be venerated as the repositories of the oral tradition and, consequently, as the storage banks of tribal wisdom. In societies such as ours, where knowledge and technique change very rapidly, the old are not likely to be so venerated. It is the young, the bearers of the new techniques and knowledge, that are likely to have both the power and the prestige. As the transmission of this knowledge is in the educational system, it is in this institution that generational discontinuities are likely to become most apparent. Also, because rapidly changing technical knowledge is difficult to acquire beyond school, the old are likely to be continually threatened by competition from the young, to be subject to fairly early obsolescence, and conflicts between generations bearing different knowledge and different values are likely to become a fact of life in all institutions.

This conflict is muted and disguised somewhat by the reorganization of the age composition of society. Some 40 per cent of the population is now under twenty, and within the year 50 per cent of the population will be under twenty-five. With the rapid expansion of the economy and institutions such as education, the young overwhelm older generations merely by numbers, and thus the intensity of the conflict is frequently masked by the ease of the political solutions. One thus must not discount the sheer fact of larger numbers in younger generations in heightening our awareness of generational discontinuity. The proportion of youth in the total population is also intensified by the progressive lengthening of adolescence; that is, one is young much longer today than in previous centuries.

Finally, the weakening of tradition caused not only by the media but also by the pace of technical change and progressive dominance of the educational system in the socialization process intensifies, I think, generational discontinuity. I am led to this argument by the belief that structural elements in the society are less able to provide useful and stable identity patterns to youth. Religious, ethnic, regional, and class identifications are weakening, and they are identifications which are not temporal in character. As religious and ethnic traditions weaken, generational identity becomes more important
as a means of placing oneself and organizing one’s own self-conception. This is true not only in the society at large but also in all subordinate institutions. The importance of generational identity is enhanced by the decline of ritual and passage rites which formerly served as devices for confirming and symbolizing structural identity. In addition, these structural identities simply come into conflict with one another, they counterpoint, and the young are frequently led to reject all past identities and seize upon membership in a generation as the key to understanding what is happening to them. This is a phenomenon Erik Erikson has usefully analyzed under the label the “totalism” of youth.

I am suggesting that generations are becoming more important sources of solidarity than other social groups in spite of Harold Rosenberg’s observation that being a member of an age group is the lowest form of solidarity. The spread of a world-wide urban civilization built upon rapid and ephemeral means of communication ultimately means that individuals of the same age in Warsaw, Moscow, Tokyo, and New York sense a membership in a common age group and feel they have more in common with one another than with individuals older and younger within their own societies. This is a phenomenon which Innis did not anticipate. When Innis spoke of competition to establish a monopoly of knowledge, he normally was thinking of competition coming from institutions or structural groups: competition from the clergy, politicians, or the middle classes. Similarly, when other scholars have spoken of the role of groups in social change, they have normally thought of structural groups such as the burghers, the aristocracy, or the Jews. The implication of my suggestion is that the bearers of social change are increasingly age groups or generations rather than structural groups. Instead of groups representing individuals of all ages bound together by a common structural characteristic such as religion, race, or occupation, the most important groups of the future will be those of a common age who are structurally variegated. A generational group finds its solidarity in a common age even though some of its members are Catholic, some Jewish, some Protestant, some northerners, some southerners, some middle class, some working class. If this is correct, then political conflict, to choose just one example, which we have normally thought of in structural terms as conflict
between regions, classes, and religions becomes focused instead around generations. If I correctly interpret the behavior of Robert Kennedy, he is aware of the phenomenon.

Now, unfortunately, things are neither as neat, as simple, or as true as I have painted them in these pages. There are still strong differences within generations. One must speak of generations of musicians and novelists, physicists and sociologists, northerners and southerners, Catholics and Jews. Obviously, one has to pay attention to the intersection of structural variables such as class and generational variables or the entire analysis quickly slides into a tautology. But I do think that in modern society generations become more important in all spheres of life. There are still strong differences within generations. One must speak of generations of musicians and novelists, physicists and sociologists, northerners and southerners, Catholics and Jews. Obviously, one has to pay attention to the intersection of structural variables such as class and generational variables or the entire analysis quickly slides into a tautology. But I do think that in modern society generations become more important in all spheres of life. There is a competition to name generations, to symbolize them, to characterize the meaning of a generation. There is a competition within and between generations to choose the culture by which the generation shall be known. Further, there is competition to impose the culture of a generation on the entire society. And this, of course, is what Innis meant by a monopoly of knowledge. It was only a few years ago that David Riesman was suggesting that the media, particularly television, were devices for imposing the culture of the middle class on the entire society. Let me merely suggest that the media, particularly television, are devices by which the culture of youth is imposed on the entire society. In the competition to determine whose culture shall be the official culture and whose values the official norms, the axis of conflict is between generations.

These perhaps over-long notes on the sociology of generations illustrate, I hope, Innis' central point: the principal effect of media technology is on social organization. The capacity of Innis to deal with such phenomena in a reasonably direct and clear way leads me to prefer his characterization of media effects to that of McLuhan. However, this does not mean that Innis will ever have the social impact or perhaps even the intellectual impact of McLuhan, for McLuhan's appeal and his meaning reside not in the technical quality of his argument but in his capacity to be an acceptable prophet of our times. It is with an analysis of the basis of McLuhan's social appeal that I wish to close this paper.

Perhaps the most interesting thing about McLuhan is the degree
of success he has enjoyed. Criticism of his position usually starts out, as does this paper, with the admission by the critic that he may represent an obsolete tradition, that McLuhan may be right in claiming that most scholars are merely “prisoners of print.” Criticism, such as it is, usually gives away the game before the players are out of the dugout. No useful criticism can be made of McLuhan, I am now convinced, on technical grounds. There is no way of applying standards of verisimilitude and verification to his analysis. The only criticism of McLuhan that can hope to be effective is one that admits the possibility of a system of values and meanings preferable to those implicit in McLuhan’s work.

It is unfortunate, I think, that some of the daring and exquisite insights McLuhan has into the communication process are largely vitiated by his style of presentation, his manner, and his method. The meaning of McLuhan is not in his message, his sentences, but in his persona as a social actor, in himself as a vessel of social meaning. The meaning of McLuhan is, I want to argue, mythical and utopian. Consequently, one cannot ask whether he is correct about the effects of communication technology, for this is a question irrelevant to his message. One can only determine how one feels about the attitudes toward life implicit in his utopian projections.

Unlike the traditional scholar, McLuhan deals with reality not by trying to understand it but by prescribing an attitude to take toward it. McLuhan is a poet of technology. His work represents a secular prayer to technology, a magical incantation of the gods, designed to quell one’s fears that, after all, the machines may be taking over. Like any prayer, it is designed to sharpen up the pointless and to blunt the too sharply pointed. It is designed to sharpen up the mindless and mundane world of popular culture which consumes so much of our lives and to blunt down the influence of modern technology on our personal existence. The social function of prayer is, I suppose, to numb us to certain gross realities of existence, realities too painful to contemplate, too complex to resolve. Ultimately, McLuhan himself is a medium and that is his message. As a medium, he tells us we need no longer ask the imperishable questions about existence or face the imperishable truths about the

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human condition. The fundamental problems of existence are to be solved automatically and irreversibly by the subliminal operation of the machines on our psychic life. McLuhan represents an apocalyptic vision, an eschatological prediction about the future that can quell our frequently ambivalent feelings about ourselves and our inventions. He represents in this guise the ultimate triumph of the technical over the moral, for he tells us that concerns for morals and values and meanings in the age of electric circuitry are unnecessary.

Harold Innis wanted to preserve the oral tradition and its characteristic concern for values and meaning in the face of a rampaging technology favoring the demands of space. The oral tradition and moral order were important even if contemporary media did not support such concerns. For McLuhan, on the other hand, modern technology obviates the necessity of raising moral problems and of struggling with moral dilemmas. When asked if one can make moral judgments about technology, McLuhan answers: “Does one ask a surgeon in the middle of an operation if surgery is ultimately good or bad?” I suppose not. But there are days on which the propriety of surgery must be questioned. If we had raised these questions some time ago we might have avoided a generation of frontal lobotomies.

Let me be clear on the utopian and mythical aspects of McLuhan. While McLuhan insists that he is not attacking print and he is not an enemy of books, his public meaning is unmistakably as follows: printing gave rise to the Age of Reason, to scientific logic, and to the liberal tradition. The liberal tradition argued that human freedom is solely the result of man’s rationality. McLuhan contends, however, that the overemphasis on reason in the liberal tradition has resulted in man’s alienation from himself, from other men, and from nature itself. This is an important point, of course. It is a theme common to many critics of our civilization, is central to the argument of Innis, and is expressed much more cogently and persuasively in Norman O. Brown’s Life Against Death.

McLuhan’s relevance stems from the fact that he goes beyond this critique and argues that the reunification of man, the end of his alienation, the restoration of the “whole man” will result from autonomous developments in communications technology. All individuals
have to do to be put back in touch with their essential nature is to detach themselves from tradition and submit to the sensory powers of the electronic media.

We are being saved again! This time, however, the salvation does not entail a determined act of will, the endurance of suffering, the selflessness of sacrifice, the torment of anxiety, but only the automatic operation of technology. I won’t bore you by piling up quotations in which McLuhan argues that the effect of the media on sensory organization is automatic, without resistance, subliminal. Its operation is independent of the will and the wish of men. McLuhan thus represents a species of a secularized, religious determinism, a modern Calvinism which says, “Everything is gonna be all right, baby.”

But is it? And should we take it seriously? The only thing of which we can all be sure is that even in the age of electric circuitry men are born alone and individually attached to nature and to society by an umbilical cord which all too quickly withers away. The fact of the terrible loneliness and isolation of existence is what has motivated much of the great art produced in any period of history. We should not need Eugene O’Neill to remind us in the face of McLuhan’s onsloughts that “man is born broken; he lives by mending; the grace of God is glue.”

Human communication, by language and every other technique, is the fragile means by which men attempt to overcome the isolation of existence and wed themselves to other men. Under the best of circumstances, communication is rarely successful, is always halting, is always tentative and tenuous. “Stammering is the native eloquence of we fog people.” But the act of communication, as O’Neill and Camus among other modern artists remind us, is the only source of joy and tragedy humans have. One can all too easily forget that the word “communication” shares its root with “communion” and “community,” and it is the attempt to establish this communion that theories of communication, vulgar as they are in present form, attempt to capture.

McLuhan’s relevance and meaning resides in our attempts to deal with the dilemma of communion. In an age when men are more than ever divided from the basis of an authentic communion with one another, when men’s relations with machines and technology
seem more durable and important than their relation to one another, McLuhan finds man’s salvation in the technology itself. For McLuhan (and I must admit for Innis also), the vision of the oral tradition and the tribal society is a substitute Eden, a romantic but unsupportable vision of the past. What McLuhan is constructing, then, is a modern myth, and like all myths it attempts to adjust us to the uncomfortable realities of existence. The Iceman cometh again but this time in the cloak of the scientist. But even this shouldn’t surprise one, for science is the only legitimate source of myths in the modern world. Science is, of course, the unquestioned source of authoritative knowledge in the modern world. Scientific myths enjoy the claim of being factually true even if they are in no way demonstrable, even if they must be taken on faith, even if they attempt to answer what are, after all, unanswerable questions. Scientific myths have the great advantage in this self-conscious society of not appearing as myths at all but as truths, verified by or capable of being verified by the inscrutable methods of the scientist.

McLuhan’s parable on the restorative powers of the media in expanding the consciousness of man is one more myth, one more illusion by which men can organize their lives. Unlike most of the utopias of the modern world—1984, Brave New World, The Rise of the Meritocracy, and even B. F. Skinner’s Walden Two—it celebrates not the evils of technology but its glories, not its inhumanity but its terrible humanity; it celebrates Eros and not Thanatos. In a world where electric technology is, like it or not, a reality of existence that shall not pass away, it attempts to offer a justification of optimism. McLuhan’s vision quite closely parallels the specification of modern myths that Emerson offered in 1848. For modern myths to be effective they will have to be mechanical, scientific, democratic, and communal (socialistic).

What finally is one to think about this myth, this New Jerusalem the media are creating? One cannot help being overwhelmed by its awful vulgarity, by its disconnection from whatever sources of joy, happiness, and tragedy remain in this world. Scott Fitzgerald was right: Modern men would invent gods suitable only to seventeen-year-old Jay Gatsbys and then would be about their Father’s business: “the service of a vast, vulgar, and meretricious beauty.”

One need not be against myths. Men live by illusions; only
gods and devils are without them, and it is our illusions ultimately that make us human. But it is the quality of moral imagination contained in McLuhan’s myth that is disquieting; it is as if it were offered as a scientific footnote to Yeats’ “The Second Coming.”

Finally, let me note that McLuhan himself is the ultimate verification of the more prophetic aspects of Innis’ work. For central to Harold Innis’ vision was the certainty that the spatial bias of communication and the monopoly of knowledge forged in its name would lead to the triumph of the secular over the sacred. The divorce of the written from the oral tradition is now complete; the hegemony of science over religion, of technical authority over moral authority, has been accomplished. If McLuhan is the prophet of the collapse of all tradition, it is fitting, I suppose, that it should be evidenced by a concern with the media of communication. It is also ironic that it should come from a student of literature who views art as a vehicle of communication. For as Allen Tate has reminded us, the very concept of literature as communication represents an unexamined victory of modern secularism over the human spirit. “Our unexamined theory of literature as communication,” he says in The Forlorn Demon, “could not have appeared in an age in which communion was still possible for any appreciable majority of persons. The world communication presupposes the victory of the secularized society, of means without ends.”

McLuhan, then, is no more revolutionary than I am. The death of values he represents is not some twentieth-century revolution. It is the end point of a positivistic revolution against meaning and metaphysics. And thus it is no surprise that his utopianism should be based on the sanctity of science and the fact.

But let me remind you that it was precisely this revolution that Harold Innis tried to resist; it was precisely this revolution that he saw as ending the possibility of a stable civilization in the West. For Innis, the oral tradition representative of man’s concern with history and metaphysics, morals and meanings had to be preserved if we were not to fall victim to a sacred politics and a sanctified science. It is an irony and an uncomfortable fact that the prophecy is borne out by one who has identified himself as a disciple. But such is the frequent result of discipleship.