McLuhan's contribution to the field of communications/history is appraised. This entails looking at several historical precursors then focusing on his two major works in the area, *The Gutenberg Galaxy* and *Understanding Media*.

La contribution de McLuhan au champ d'histoire des communications est examinée. Au début quelque précurseurs de ce projet sont considérés, et après il y a un accent sur deux livres majeurs, *La Galaxie Gutenberg* et *Pour comprendre les médias*.

Few new truths have ever won their way against the resistance of established ideas save by being overstated.

—Isaiah Berlin

During the last leadership race for the Democratic Party, Mike Wallace gave a prime-time editorial on the rising support for Jesse Jackson. Noting how Jackson was spending less on his campaign and making fewer TV appearances, Wallace began by questioning McLuhan's premises about media—though never stating exactly what they are. He feigned being perplexed and expressed delight at the seemingly contradictory circumstances surrounding Jackson's resurgence. Wallace then suggested that maybe, despite McLuhan, media were not so all powerful, and that media exposure induced by big money could be overridden by personality and issues. Like a self-righteous academic demonstrating an obvious proof (in this case disproof) to wide-eyed students, he ended the "lecture" by declaring McLuhan's theories about media to be "completely wrong".
Could Wallace have been responding to the drubbing he received in his interview with McLuhan twenty years earlier? Perhaps he succeeded in encouraging a handful of viewers to read, reread or at least think about McLuhan again. I also assume that I was not alone in recognizing that the Jackson paradox, of less media exposure/more success, is one that would not have posed a problem for McLuhan. It is quite consonant with his notions of media relativity. On numerous occasions he observed that prominent figures should pull back on their media visibility in order to secure more credibility and/or support.

Ironically, and I am sure unintentionally, Wallace’s effort to bring the McLuhan name back into prime-time, coming as did on the eve of the twenty fifth anniversary of the publication of Understanding Media, coincided with a revival of interest in McLuhan’s work. During the eighties, especially in the United States, a number of researchers have tapped a legacy that was under near eclipse by the end of the seventies. The following are among the more notable examples of this trend: In *Media and the American Mind: From Morse to McLuhan* (1982) Daniel Czitrom both reappraises the McLuhan vision and applies aspects of it to his own interpretation of the telegraph, the early history of film, and radio; Neil Postman, in the *Disappearance of Childhood* (1982) and *Amusing Ourselves to Death* (1985) moralizes McLuhan into a critique of contemporary culture out of sync with McLuhan’s stated position, but perhaps consonant with his private sentiments; *The Culture of Time and Space: 1880-1918* by Stephen Kern selectively and convincingly inserts several McLuhan observations into what is arguably the most impressive study of the relationship between culture and technology since Lewis Mumford’s *Myth of the Machine* (1970); Joshua Meyrowitz in *No Sense of Place* (1985) has attempted an ambitious synthesis of McLuhan’s macro-media concerns with the micro-sociology of Irving Goffman; and most recently the preeminent McLuhan interpreter/critic, James Carey, in *Communication as Culture* (1989) has given us a long awaited collection of his essays.

With the hype of McLuhan’s own self promotion now but a quaint memory, what has survived, and thrived, is his attempt to continue the tradition of communications/history for which Innis was the definitive cartographer. Although this is not the place to go into details regarding the Innis-McLuhan relationship, what should be noted is that at the core of each of their contributions to communications/history are two closely spaced programmatic works: *Empire and Communications* (1950) and the *Bias of Communication* (1951) for Innis; and the *Gutenberg Galaxy* (1962) and *Understanding Media* (1964) in the case of McLuhan.

Why has this reappropriation of McLuhan occurred and why was it preceded by a period in which his work was almost completely ignored? There is no definitive answer. Perhaps his plea for us to "understand media" has had a two-tiered impact. First he said, look at the pervasive influence of the environment
created by new communications. The importance of this resonated throughout the media rich sixties. But he also said, study the problem historically, begin with the oral tradition, then look at the print revolution and related technologies. The claim being that this would provide you with a sense of why the present age is as it is. The sixties discovered the general importance he attributed to media. The seventies thought that was all there is to it, on to other things. However, during the eighties serious recognition was given to the historical side of McLuhan’s project.

Twenty five years after the publication of the Understanding Media, this work and its precursor Gutenberg Galaxy, deserve reassessment, given what they represent, their influence, and the fact that communications/history inquiry has now become a major research area...because and in spite of McLuhan.

**Communications/History Before McLuhan**

*Galaxy* and *Media*, like their Innisian counterparts *Empire* and *Bias*, are full fledged contributions to the history of communications. As with Innis, McLuhan’s vision is programmatic. A new domain of scholarly research is charted. There is of course a difference in emphasis, Innis concentrates on the social, and institutional influences produced by changes in communication, McLuhan tackles their cultural and sensory effects. Both projects have a venerable history that predates the discipline of communication, and communications history as a specific research venue. Their genealogy dates back at least to the eighteenth century and develops through a variety of disciplinary and national traditions. A brief sketch of this lineage can perhaps help us to more fully contextualize the appraisal of *Galaxy* and *Media* to follow.

The eighteenth century Enlightenment sought an understanding of human nature, society, and history, which was informed by science and guided by reason. John Locke’s *Essay on Human Understanding* (1690) was instrumental to this endeavour. Locke denied innate ideas. He argued that knowledge about the world, and ourselves, derives from a gradual acquisition of varied sense impressions coordinated by our capacity for reflection. He thought that semiotics, the nature of the signs the mind uses to comprehend the world, plays a crucial role in this process. Locke’s approach however, remained ahistorical, and limited to a general consideration of perception and language. Many of his ideas were appropriated in the next generation by French philosopher Etienne Bonnot de Condillac, who in his *Essai sur l’origine des connaissances humaines* (1746) applied the Lockean philosophy of the senses, and signs, to several aspects of human communication using the framework of universal history—a comprehensive natural-historical account of the development of humankind from its earliest beginnings.

For Condillac, as for McLuhan, knowledge is tied to the organization of the senses via the mode of communication. In a speculative sweep of history, he looks
at stages in the development of individual knowledge that result from "gesture, dancing, speech, declamation, arbitrary marks for words or things, pantomimes, music, poetry, eloquence, writing, and the different characters of language" (Condillac, 1971:8). Part of his analysis deals with the differences between nonliterate and literate societies. The oral tradition is looked at in terms of the musicality of its speech and the range of nonverbal techniques used to enhance dialogue. Interestingly, Condillac, covers some of the same ground as Giambattista Vico in his New Science (1728), a work which, through its appropriation by James Joyce, significantly influenced McLuhan, as Don Theall points out in his contribution to this volume. Joyce must have been less enamoured with Condillac, who in contrast to the poetic approach of Vico, argued a case affirming scientific reductionism and the concept of progress. Nevertheless, the sections of Condillac’s work that deal with communications/history are far more comprehensive and systematic than Vico’s efforts. By linking the variety of forms used in human communication, to the "progression of mental operations", Condillac founded a psychological tradition in communications/history inquiry, which resurfaces in Galaxy and Media.

The Enlightenment concern with communication was further developed by Jean-Jacques Rousseau, who claimed to be Condillac’s disciple. However, Rousseau rejected the extreme scientism and progressivism of Condillac. In a series of mid-eighteenth century writings, now available as The Essay on the Origin of Languages (this text provides a basis for Jacques Derrida’s Of Grammatology), Rousseau devotes significant commentary to a distinction that is now a mainstay of communication research: orality/literacy.

Rousseau rejects the notion of Condillac and the philosophes, that with writing mankind moved from ignorance to enlightenment. He observes that while this new form of communication seems to significantly augment knowledge, what is really going on is a qualitative transformation based on the properties of writing as a form of communication—in Rousseau’s case an impersonal and restrictive form. His position is reminiscent of McLuhan’s famous phrase "the medium is the message". For Rousseau the way any communication occurs, be it through different languages or various forms of written script, profoundly effects how we come to experience and know the world, and ultimately other human beings. For Rousseau a medium such as alphabetic writing does not merely preserve and increase what exists, it transforms it into a new version of reality and truth without those involved being aware of the human loss that accompanies this technological gain.

Moving ahead to the nineteenth century, a worthy precursor of McLuhan was the English anthropologist Edward Burnet Tylor. Tylor was heir to the Enlightenment tradition of looking at the development of humanity in terms of what was called universal history in the eighteenth century, and social evolution in the nineteenth. In 1865 he published Researches into the Early History of Mankind, a work that came as close to being a history of communications as anything written
prior to Innis and McLuhan. *Researches* looks at the culture-history (Tylor would later provide the definition of culture most cited by the social sciences) of civilization, focussing on the oft neglected prehistoric and non-Western traditions.

For Tylor, as for McLuhan, communication is the basis of culture; as communication changed, or "progressed" to use his term, so did human development in all spheres. Tylor maps stages in the process of cultural evolution. He notes how the passage from barbarism (nomadic pastoral society) to civilization, was predicated on writing. It greatly amplified what was possible in an oral tradition—or the "tradition of memory" as he refers to it. Eventually, different forms of script, from picture writing to the alphabet, in turn yielded new cultural possibilities. In a later book *Anthropology* (1881), Tylor has a chapter, "Writing", which touches on the importance of more recent media such as the printing press and phonograph. However, his commitment to the ethnological study of non-Western cultures precluded him from pursuing this line of investigation further. Tylor's project has obvious bearing on some of the concerns of *Galaxy* and *Media*. And although McLuhan never cited him, he did have familiarity with Tylor's work.¹

**Creation of The Gutenberg Galaxy²**

Through the first half of the twentieth century communications/history was approached in a discontinuous fashion, as part of a variety of other projects. It was not until the later work of Innis that it began, to take on status as a distinct field. Unfortunately Innis's cryptic style and interdisciplinary vision prevented immediate acceptance of his work. Rediscovery of this legacy has, at least in part, resulted from the notoriety of McLuhan during the sixties, and his controversial claim to be building on Innis tradition.

When McLuhan's *The Gutenberg Galaxy* was published in 1962 it was greeted, as was Innis's *Empire and Communications* (1950), with only mild academic interest. Not until two years later, when *Understanding Media* was unleashed on the world, did a wider audience, curious to know where else this "medium is the message" philosophy was being dispensed, look toward the *Galaxy*. Nevertheless, it never enjoyed the widespread notoriety engendered by its sequel. Although the *Galaxy* is written with catchy chapter glosses and in the McLuhanesque "mosaic" style, it remains a dense, scholarly study. Almost every idea is bolstered with numerous and often lengthy quotations, whereas *Understanding Media* strives for a less pedantic and seemingly more original and accessible presentation.

For many readers, the emergence of McLuhan during the sixties as champion, or charlatan, of a history of communications perspective was rather sudden. Nevertheless, it had been ten years in the making. The major impetus behind McLuhan's new quest was a project/seminar and journal that he edited, along with
anthropologist Edmund Carpenter and the occasional collaboration of artist Harley Parker: *Explorations: Studies in Culture and Communication*. It was irregularly published in eight issues between 1953 and 1959 and assisted by a Ford Foundation grant. *Explorations* was a major interdisciplinary forum, bringing together scholars from diverse fields who shared a concern for the phenomenon of human communication. Several participants, such as sociologist David Riesman and historian Siegfried Giedion, would become frequently cited sources in McLuhan’s later work. In a rare moment of candour, McLuhan has readily acknowledged the importance of Giedion during the period of *Explorations*, referring to the latter’s *Space, Time and Architecture* (1954) as "one of the great events of my lifetime." (In Stearn, 1987:263)

The influence of Carpenter was no less profound. His work in cultural and linguistic anthropology among the Avilik Inuit, and sensitivity to a wide body of literature on non-Western cultures, helped McLuhan develop a sense of comparative history not limited to the tradition of the West. Carpenter’s own originality and contribution to McLuhan’s cause can be clearly discerned in a book they jointly edited in 1960, *Explorations in Communication*, which brought together some of the more notable contributions from *Explorations*. In a sense the bond between McLuhan and Carpenter can be likened to the one between Marx and Engels, though the parallel is of course a loose one. In each dyad the senior partner was difficult to access, seemingly deep and intolerant of divergent opinion, while the junior evidenced an accessibility, intellectual and his personal, human compassion and loyalty that at times obscure his own originality and unique insights.

To say that the *Explorations* project was unorthodox is an understatement. As Donald Theall has pointed out in his still definitive study of McLuhan, it was "one of the more interesting intellectual events of the decade..." (1971:1) *Explorations* also contributed to the establishment of the Centre for Culture and Technology at the University of Toronto, which became McLuhan’s base camp. Although characterized by the participation of numerous renowned scholars, the journal endeavored to disseminate its message in an unconventional way. It employed the disjointed discontinuous style—later to become the notorious "mosaic approach"—and utilized typographic resources in new and unusual ways. Almost all the major ideas and themes of the *Gutenberg Galaxy*, were field tested in the *Explorations* arena.

*The Gutenberg Galaxy* opens with an affirmation of the "mosaic approach" as the only means to reveal the "causal operations" in history. And at the outset we have a major contradiction. Though the purpose of this essay is to contextualize McLuhan, not to point out the various paradoxes and contradictions that abound in his work—they have been well criticized in previous commentaries—this particular one cannot be ignored. "Mosaic" implies, as McLuhan acknowledges, simultaneity and interplay, while causality is a concept born of the very
lineal/literate mode of thought he disavows. It is this very insistence on championing a causal technological determinism grounded in media which has led several critics to refer to his work as "McLuhanacy." Nevertheless, the "mosaic" strategy does allow for other factors. Essentially it is a style of exposition that juxtaposes divergent observations, moves back and forth across history in a comparative way, and cites relevant observations from authors in a wide range of disciplines. To the degree that it is interdisciplinary, it can be seen as linked to the tradition of Innis.

It is not surprising, therefore, to find the name of Innis mentioned several times in the text, including the respectful claim that the *Galaxy* is but a footnote to his work. At best the book is an amplification of several themes elaborated by Innis, at worst it raises these themes to the status of an autonomous field severed from the social, historical, and institutional concerns that Innis would have thought essential to the task. Other sources are used less controversially. Indeed, it is a major strength of McLuhan that almost every idea of significance in the *Galaxy* is shown to have been expressed in some way in a host of other studies. The reader becomes acquainted, through extensive quotes and gracious lead-ins, with the texts of genuinely insightful but not often mainstream writers. In addition to those already mentioned in conjunction with *Explorations*, frequent use is made of the work of Walter Ong regarding the educational reforms induced by print; H.J. Chaytor on the transition from script to print; William Ivins on the visual shifts created by print; and Lucien Febvre and Henri-Jean Martin for their landmark study on the history of the book.

Despite McLuhan’s disavowal of traditional sequential typologies, and his claim that the order of presentation of topics in the *Galaxy* is irrelevant and could easily be otherwise, he nonetheless follows a venerable historical scheme. History is divided into four phases characterized by the prevailing means of communication. In the first phases, rule and logic are dominated by the properties of the spoken word. This is followed by the emergence of the phonetic alphabet, the scribal tradition. Unlike Innis, McLuhan shows no interest in civilizations using nonalphabetic scripts—he classified the great empires of the East as large-scale tribes still within the oral mode. Innis was more astute. He concluded that writing, not just alphabetic writing, was the major historical-technological development. It conferred on its practitioners a particular kind of visual bias, whereas the early alphabet, particularly in Greece, retained several aspects of orality—a position diametric to McLuhan’s. The third phase McLuhan highlights is the Gutenberg revolution, which utilizes printing via moveable type. This is followed by the electric age, which although mentioned in the *Galaxy*, receives fuller treatment in *Understanding Media*.

The oral tradition, according to McLuhan, is based on a multisensual, nonlinear orientation to the world steeped in magico-religious sentiment. Phenomena are not perceived in one fixed way, as they are in typographic culture. Rather, they
are held to contain several possibilities with respect to form and meaning. This leads him to emphasize the verbal (and visual) punning common in such societies. There are interesting parallels here with French anthropologist Levi-Strauss's (1967) "science of the concrete" and notion of *bricolage*: the nonliterate primitive's way of looking at objects in terms of a repertoire of possible meanings and uses. However, Levi-Strauss sees this as a fundamental aspect of our generic mind, which becomes restricted as cultures attain increasing complexity. McLuhan however, links it to a particular kind of communication, the spoken word. Finally, to make a comparison with Innis on orality, McLuhan uses a wider range of examples than his predecessor, who relied mostly on the early Greek experience for his generalizations. But while Innis explored the full social ramifications of orality, McLuhan confines his emphasis to its acoustic (aural) properties and psychological implications.

Although the *Galaxy* argues that an important and unparalleled revolution occurred with the invention of moveable type printing, it was the development of alphabetic writing which formed the essential prelude. As with most historians who employ typologies, McLuhan talks about changes that took place continuously over several centuries as if they happened with dramatic suddenness. For example, the alphabet, with its emphasis on lineality, abstraction, and specialization (Innis saw these qualities arising with writing per se, not just alphabetic script), is said to have effected a dramatic break with the wholeness and inclusiveness of the oral tradition. He makes minimal use of archaeological sources that map the details of this transformation. Preference is given to highlighting the renowned Greek achievement in science, philosophy, and logic, which he ties directly to phonetic literacy. One important source in this area was as yet unavailable to him, Eric Havelock's *Preface to Plato*. It was first published in 1963, less than a year after the *Galaxy*, and eventually exerted a significant influence on McLuhan's subsequent work, especially *Understanding Media*.

The aspect of preprint culture that is most thoroughly elaborated in the *Galaxy* is the medieval period. Although characterized by alphabetic script and known sometimes as the manuscript tradition, McLuhan deems it to be a transitory phase, incorporating features from traditional orality, along with the kind of literate perceptions that would dominate with the rise of print. Clearly, McLuhan is describing a situation that, in a sense, represents a reversion from the state of philosophical thought and culture which the alphabet had earlier brought to Greece. This is never explained. Nor is the fact that with the rise of print many areas of Greek thought, suppressed during the Middle Ages, acquired new found interest and application. The problem, of course, is that causality in history, if it exists at all, cannot be attributed to any single factor such as media, especially through the vast expanses of time dealt with in the *Galaxy*. 
Nevertheless, McLuhan’s analysis of the scribal world of the Middle Ages is probably the most astute and well thought out aspect of the *Galaxy*. He makes judicious use of the highly regarded work of H.J. Chaytor, Walter Ong, and Istvan Hajnal. His own conversion to Catholicism seems to have led to a passionate identification with this period. Just as Innis’s ideal of a harmonious and balanced culture was newly literate Greece preserving key aspects of earlier orality, so McLuhan’s ideal seems to be the manuscript era, where oral ritual and an inclusive sensorium coexist with a mode of permanent preservation of revered knowledge. A vivid evocation of this period can be found in Umberto Eco’s renowned novel the *Name of the Rose*. Eco was the winner of the last McLuhan Teleglobe Award and on more than one occasion has expressed a dept to the Canadian master.

With the advent of moveable type printing, things changed—overnight if we read McLuhan’s statements on print in his later more popular writings. However, a careful reading of the *Galaxy* will reveal that he is considering a transformation that occurred over several centuries. Like Michel Foucault in *The Order of Things*, he sees the ideas of Descartes in the mid-seventeenth century, two hundred years after Gutenberg, as a definitive statement expressing the newly emergent conceptual system destined to influence later European thought; Foucault attributes it to a mutation in the discourse, McLuhan to print. Both see Cervantes’s *Don Quixote* as a figure straddling this great cultural divide. Both elaborate on the stress on visuality that took place at this time. For McLuhan, print/visuality constitutes the axis around which post-Renaissance, pre-electric culture revolved. It obliterated the more inclusive world views of the oral and manuscript traditions, and gave rise to the objective point of view, an emphasis on quantification, serial order, the uniformly repeatable commodity, a stress on repeatability in science, individualism, nationalism, and doubt.

And the above list is only a partial one! As noted, McLuhan does concede that this cultural avalanche did not occur instantaneously. For example, he takes great pain to show how early printed books were attempts to replicate the form and content of what was already available during the manuscript era. Eventually the potential of the new technology led to structural changes in texts (the book as a work of reference rather than a sacred compendium of wisdom intended for at least partial memorization), new subject areas, and individual authorship. What he rarely, if ever acknowledges, is that several aspects of cultural modernism were on their way prior to Gutenberg. For instance, emphasis on quantification increased significantly with the introduction and increasingly widespread use of the Arabic system of numeration in the twelfth and thirteen centuries, which accompanied burgeoning commercial interests. Similarly, nationalism, in the form of regionalism, began exerting itself several centuries prior to the emergence of nation states in the sixteenth century. Nationalism’s early growth was tied not to print, but to the introduction of paper, which facilitated the spread of writing in the
vernacular during the later Middle Ages and contributed to the decline of the Latin-parchment monopoly on written communication held by the Catholic Church. Paper also enhanced the diffusion of Arabic numbers, and it eventually led to a situation whereby authors were acknowledged and supported.

In *The Gutenberg Galaxy* McLuhan ultimately fails to establish the intended case for historical causality based on print. Instead he convincingly shows how it was a great facilitator, often giving rise to new aspects of cultural orientation, and also, as we have just seen, amplifying trends already present in a historical constellation too complex to be explained by any one factor.

On last point should be mentioned regarding the galaxy. It has played a significant role in a more recent study of the same subject. Elizabeth Eisenstein in her monumental, *The Printing Press as an Agent of Change* (1979) has conceded, albeit grudgingly, that McLuhan was an inspiration. His oracular pronouncements and crass generalizations illuminated an important area, and made her aware of the need to develop it further in a more scrupulous manner. But she also argues that McLuhan’s work has been an impediment. It has discouraged further investigation into the printing revolution on the part of some historians and has cast the stigma of being "McLuhanite" on others so engaged. Although Eisenstein’s book was published only a year before McLuhan died, the latter managed to comment on it in a rather disappointing review (McLuhan 1981). Taking a defensive posture, he champions the originality of the Galaxy, and accuses Eisenstein of producing a sombre, overly detailed narrative. McLuhan fails to see how Eisenstein’s work complements his own and describes her approach as "paraphrasing and quantifying". Ironically it is McLuhan’s review which is somber and pedantic, much of it given over to an obscure discussion of the concept of causality. Eisenstein’s study, although rich in details is, despite McLuhan’s criticism, not without flashes of insight steeped in humour, some of it verging close to what could be called "McLuhanisms" or "probes"—though she would probably cringe at this observation. Witness the following gem: "Until the advent of printing, scientific inquiries about "how the heavens go" were linked with religious concerns about "how to go to heaven" (1980:696).

**Understanding Media and Beyond**

Throughout the Galaxy, McLuhan makes leaps from whatever historical period he is assessing to the situation of modern electronic communications. He consolidates a number of these observations in the last chapter, and in a traditional writerly manner suggests that the interested reader check out the forthcoming sequel, *Understanding Media.*

Whatever its merits, *Understanding Media* was one of the books of the sixties: the main forum for the ideas of one of the few North American academics to gain
a cult following. It has been said of the eighteenth century and Newton that no writer was more discussed by so great a number of people who never read his work, that his ideas were "in the air" as much as in print. The same could be said about McLuhan during the psychedelic days of the sixties. Anyone who can recall the memorable scene in Woody Allen's film Annie Hall, where McLuhan makes a cameo appearance as himself, gains an immediate sense of the phenomenon that he was. The scene involves the discussion of a basic McLuhanesque dualism, "hot" versus "cool" media, terms he first introduced and tried to explain in part one of Understanding Media. It is a vivid statement as to the elusiveness and imprecision of these terms. For although the would-be McLuhan interpreter in the film spells out in convincing fashion why television is "hot" and film is "cool", the astute McLuhanite knows he has the polarities reversed. In any case, McLuhan quickly appears to denounce this pretender.

Understanding Media is a book of history. Like Michel Foucault, McLuhan claims that he is not interested in history for its own sake, but in a history of the present. This entails looking at recent developments and events with an eye to sorting out those that are the most pervasive and influential. It also entails examining the past to see both the extreme contrast with our own time and charting precursors of what would become more permanent in later epochs. The book is written in a semipoetic style, laced with repetition, overstatement, and contradictions. It is also packed with as many quotable quotes as can be found in any English language writer since George Bernard Shaw or Oscar Wilde. In addition to the immortal "the medium is the message," other gems include "art is anything you can get away with," and "the electric light is pure information." Perhaps Understanding Media is best approached as a list of such provocative aphorisms, designed to stimulate thought and provoke discussion.

Numerous critics have written exceptionally engaging essays denouncing Understanding Media, blissfully unaware that their own stylistic accomplishments were being fueled by the ingenious perceptions they were disavowing. Many have never written as well or as insightfully since moving on to other issues. Perhaps it is an unintentional high tribute to McLuhan's coolness, in this sense something that compels involved creative participation for resolution, that the book should be so capable of inspiring eloquent arguments of completely diametric persuasion.

Since almost everything in McLuhan contradicts something he said somewhere else, it would be an easy exercise in sniping to systematically elaborate a comparative list of such statements. At this juncture, however, it is more important to see if any enduring and consistent insight emerge from his inconsistent exposition.

In a sense, assessing McLuhan is not so dissimilar from trying to fathom that great eighteenth century writer and sometime communication theorist, Jean
Jacques Rousseau, although there is at least one important distinction; Rousseau was readily aware of the paradoxes and contradictions that are prevalent in his work. He encourages the reader to get beyond these surface impediments and seek the deeper truths. McLuhan denies that his writing is ever at odds with itself. One of the ironies of his work is the claim to be effecting nonlinear tentative "probes"—explorations that he is readily prepared to scrap should they no long illuminate—and the fact that he has never renounced a single such "probe". Not infrequently he has protected them with a fervour and defensive posturing worthy of the most dogmatic conventional academic.

From the perspective of historical methodology perhaps the one contradiction in McLuhan's work that cannot be bypassed is his disavowal of linear causal models, which in *Understanding Media* leads him to cite Hume's arguments against causality several times. Contrast this with his avowed quest for the causal operations in history at the outset of *The Gutenberg Galaxy* and his media-based technological determinism in general.

The main arguments of *Understanding Media* are divided into a two-part format. Part 1 is a statement of major concepts and methodology; Part 2 deals with specific media from the spoken word to the computer. Part 2, in attempting to bring factual data to bear on the principles enunciated earlier, gives the book an orientation that is more conventional than McLuhan, with his advocacy of nonlinear "probes", might want to concede. What is interesting and limiting in McLuhan's presentation of methodology in part 1, is how a number of intriguing notions about communication processes are elaborated, then inflexibly bound to specific technologies. A case in point is the hot versus cool distinction. A hot medium is one that extends a single sense in high definition; it is rich in specific information and leaves little to be filled in by the audience. According to McLuhan print is hot, as is radio and film. In contrast, cool media are low definition in terms of information; they compel audience participation for resolution. This necessitates the involvement of more than one sense. Colloquial speech is cool, as well as the telephone and television.

McLuhan elaborates the play and interplay of hot and cool media on the drama of history. In a sense there is a similarity with Innis seeing history in terms of a struggle between "space-biased" and "time-biased" communication. At times it appears as if McLuhan appropriated the Innisian dualism and merely changed the labels. But there are crucial differences. Innis was institutional economist who saw history as a complex occurrence that could perhaps be best understood from a communication perspective. His concept of a medium is basic: stone, clay papyrus, parchment, paper, and so on; while for McLuhan a medium is an extension of some human faculty, in other words anything. Many factors entered into Innis's thinking on how a medium could be used and its eventual effect. To say that stone is "time-biased" and print "space-biased" is also to accommodate other factors
responsible for their role in influencing history. This is not determinism but possibilism, or if from a certain perspective one wants to refer to it as a kind of determinism, it nevertheless differs from the predeterminism of McLuhan.

Space bias and time bias are processes strongly influenced by the available technology influencing culture. Hot and cool are also processes, but rigidly defined by and at one with certain of the technologies. To talk about hot and cool the way McLuhan does is to talk about the way media allegedly are, rather than how given societies utilize them. If this rigidity can be broken, it should be possible to free up and reuse some of the ingenious perceptions that originally went into formulating the hot versus cool distinction. One might be able to look at a medium, such as American television in the eighties, and see it as a hot purveyor of political options more limited than when it was the cool voice of the sixties. With all his insistence on the separation of form and content, medium from message, McLuhan's analysis of television in Understanding Media is trapped in an unsuspected assumption: that the content of this medium during the sixties constitutes its universal essence.

A fundamental thesis of Understanding Media is that communications media constitute a pervasive environment that saturates us with a whole series of perceptions of which we are largely unaware. McLuhan argues that environments are invisible and that it takes a profound and unconventional shock to discover and understand them, the kind of challenge that has traditionally been confined to the realm of the arts, especially poetry, which he tries to evoke with his "probes." The term environment, with respect to the natural environment, enjoyed wide currency during the sixties, thereby making fortuitous McLuhan's transposition of it to the realm of technology.

According to McLuhan, in addition to functioning as an environment, media also constitute a languages. Like languages, particular media have their own grammar, or rules, which render them suitable for the conveyance of certain types of information. And, like language, particular media do not merely record and convey, but profoundly shape the way information becomes culturally acceptable. There are several probable sources for this perspective. Through working and collaborating with Edmund Carpenter, McLuhan became acquainted with the Sapir-Whorf hypothesis. Edward Sapir and Benjamin Whorf were two American anthropological linguists whose work with native North American languages led them to conclude that language is not a neutral vehicle for transmitting information and experience, rather it encodes it in specific ways, which differ from one group of speakers to the next. For Sapir and Whorf language is the basis for culture and world view, just as media fulfill this role for McLuhan.

Sapir and Whorf, in turn, strongly influenced a writer whom McLuhan cites on several occasions, anthropologist Edward Hall. Hall's book, The Silent
Language (1959), developed the notion that every culture has a language-like code that governs the way it deals with time. McLuhan adapted this notion to communication technology in general in Understanding Media. In subsequent work he uses another book by Hall, The Hidden Dimension (1966), which deals with the unconscious codes that cultures employ to define personal and public space and the sensory biases that result. Hall also champions the notion that technology constitutes an amplification and further elaboration of primary human faculties.

Much of part 2 of Understanding Media uses examples already cited in The Gutenberg Galaxy, especially when considering orality, the manuscript tradition, and print. This time there is little in the way of supportive quotes and the writing is more negotiable. But the gift for outrageous and downright wrong overstatement persists. For example, McLuhan now adds transportation to his examination of media in history and opens chapter 10 in typical oracular fashion: "It was not until the advent of the telegraph that messages could travel faster than a messenger" (1964:90). History is rarely characterized by such clear demarcations. This pontification overlooks talking drums, smoke signals, vocal relays, the heliograph, and the semaphore towers that crisscrossed France just prior to the telegraph. Even in American history, which McLuhan is fond of citing, before Paul Revere became a messenger he first had to have a message. It was flashed to him across the harbour using a lantern code.

In Understanding Media all manner of technologies are drawn into a conceptual vortex that funnels them directly toward particular modes of cultural orientation and perception. For McLuhan technology is never a series of variably related elements, but a coherent determining force in which each component acts as an extension of some human faculty and plays a role determined by the whole in configuring the way the world is seen and contemplated. Historical change is technological change. The possibility is never broached that culture, economics, or demography can induce certain forms of technology, which can lead to a process of reciprocal influence. The tiles in McLuhan’s "mosaic" always slant in the same direction.

Perhaps the key technology assessed by McLuhan in Understanding Media, the one that triggered public interest in the others he discussed, is television. A dominant feature of our cultural present, in McLuhan’s sense, it is also the most invisible of environments. That someone would dare voice loud opinions about it to the effect that its effect is not as has been supposed, was bound to attract notice. Television, the archetypal cool medium, prompted McLuhan to elaborate his infamous retrabilization hypotheses (or "probe"): that television and associated electronic media necessitate multisensory involvement and return us to the unified, inclusive, simultaneous space of the oral tribe from which centuries of phonetic literacy and print-induced visual specialism had divorced us.
In assessing the impact of television, McLuhan observes a superficial shift in patterns of perception, no doubt induced by a multiplicity of factors, sees its source in the medium and per se, and its effect penetrating to the deepest foundations of our culture. Is this hypothetical hyperbole, to borrow from the master’s style? Perhaps. McLuhan has often said his goal is to shake us out of our complacent trance and get us to look at what modern technology is really about. It might even be possible to accept this contention outright if it were not accompanied by such defensive posturing and dogmatic insistence. Nevertheless, any contemporary discussion of the role of television, including one based on, "heaven forbid," content, cannot help but address some aspect of McLuhan’s perspective. Even complete avoidance of his position creates a situation whereby important considerations inevitably arise in the gap between the new non-McLuhan view and the one it tries to sidestep or contradict.

Despite its theoretical shortcomings *Understanding Media* is an important book. Its significance resides not in what it says about things, but in the things it brings together for the saying. McLuhan’s real gift—apart from his resonant style—is in assembling a constellation of historical artefacts that have traditionally been taken for granted, but on closer inspection appear to be, to use one of Innis’ favorite phrases, "things worth attending." One need not follow McLuhan to his inevitable overstated conclusions to recognize that somehow printing, the clock, money ("the poor man’s credit card"), the telegraph, telephone, typewriter, and so on, have had a pervasive influence in shaping modern civilization. Even if this influence has not been as he stipulates, rectifying his excesses can be a valuable exercise in exploring why the contemporary world is as it is.

What McLuhan had to say about communications/history he said in *Galaxy and Media*. A series of derivative studies followed and restated the main ideas in a number of engaging verbal and visual ways. Most are like advertisements for the arguments he developed previously. One partial exception is *Through the Vanishing Point: Space in Poetry and Painting* (1968), which he did with Harley Parker. In its reliance on extensive quotes, especially from literature, it recalls the format of *Galaxy*, and its wealth of McLuhanesque captions evoke the style of *Media*.

*Through the Vanishing Point* was published in Ruth Nanda Anshen’s World Perspectives series, which had earlier yielded Gordon Childe’s *Society and Knowledge* and Lewis Mumford’s *The Transformations of Man*. It also restates the debt to Innis. Does McLuhan then belong in the select company of scholars such as Childe, Mumford, and Innis, who have studied key aspects of the history of civilization? Absolutely. Such pantheon needs a visionary who can play the role of clown prince. This one’s time came 25 years ago...and has not yet gone.
FOOTNOTES

1. Donald Theall, personal communication.

2. Part of what follows appears in Communications and History: Theories of Media Knowledge and Civilization (Greenwood Press, Westport, Connecticut: 1988)

REFERENCES


