Marshall McLuhan Intervew from Playboy, 1969

The following is the *The Playboy Interview: Marshall McLuhan*, Playboy Magazine, March 1969, ©1994. It has been modestly redacted and slightly edited (by me, Phillip Rogaway) for use in UC Davis' ECS 188, "Ethics in an Age of Technology."

In 1961, the name of Marshall McLuhan was unknown to everyone but his English students at the University of Toronto—and a coterie of academic admirers who followed his abstruse articles in small-circulation quarterlies. But then came two remarkable books—"The Gutenberg Galaxy" (1962) and "Understanding Media" (1964)—and the graying professor from Canada's western hinterlands soon found himself characterized by the San Francisco Chronicle as "the hottest academic property around." He has since won a world-wide following for his brilliant—and frequently baffling—theories about the impact of the media on man; and his name has entered the French language as mucluhanisme, a synonym for the world of pop culture.

Though his books are written in a difficult style—at once enigmatic, epigrammatic and overgrown with arcane literary and historic allusions—the revolutionary ideas lurking in them have made McLuhan a best-selling author. Despite protests from a legion of outraged scholastics and old-guard humanists who claim that McLuhan's ideas range from demented to dangerous, his free-for-all theorizing has attracted the attention of top executives at General Motors (who paid him a handsome fee to inform them that automobiles were a thing of the past), Bell Telephone (to whom he explained that they didn't really understand the function of the telephone) and a leading package-design house (which was told that packages will soon be obsolete). Anteing up \$5000, another huge corporation asked him to predict—via closed-circuit television—what their own products will be used for in the future; and Canada's turned-on Prime Minister Pierre Trudeau engages him in monthly bull sessions designed to improve his television image.

McLuhan's observations—"probes," he prefers to call them—are riddled with such flamboyantly undecipherable aphorisms as "The electric light is pure information" and "People don't actually read newspapers—they get into them every morning like a hot bath." Of his own work, McLuhan has remarked: "I don't pretend to understand it. After all, my stuff is very difficult." Despite his convoluted syntax, flashy metaphors and word-playful one-liners, however, McLuhan's basic thesis is relatively simple.

McLuhan contends that all media—in and of themselves and regardless of the messages they communicate—exert a compelling influence on man and society. Prehistoric, or tribal, man existed in a harmonious balance of the senses, perceiving the world equally through hearing, smell, touch, sight and taste. But technological innovations are extensions of human abilities and senses that alter this sensory balance—an alteration that, in turn, inexorably reshapes the society that created the technology. According to McLuhan, there have been three basic technological innovations: the invention of the phonetic alphabet, which jolted tribal man out of his sensory balance and gave dominance to the eye; the introduction of movable type in the 16th Century, which accelerated this process; and the invention of the telegraph in 1844, which heralded an electronics revolution that will ultimately retribalize man by restoring his sensory balance. McLuhan has made it his business to explain and extrapolate the repercussions of this electronic revolution.

For his efforts, critics have dubbed him "the Dr. Spock of pop culture," "the guru of the boob tube," a "Canadian Nkrumah who has joined the assault on reason," a "metaphysical wizard

possessed by a spatial sense of madness," and "the high priest of popthink who conducts a Black Mass for dilettantes before the altar of historical determinism." Amherst professor Benjamin De-Mott observed: "He's swinging, switched on, with it and NOW. And wrong."

But as Tom Wolfe has aptly inquired, "What if he is right? Suppose he is what he sounds like—the most important thinker since Newton, Darwin, Freud, Einstein and Pavlov?" Social historian Richard Kostelanetz contends that "the most extraordinary quality of McLuhan's mind is that it discerns significance where others see only data, or nothing; he tells us how to measure phenomena previously unmeasurable."

The unperturbed subject of this controversy was born in Edmonton, Alberta, on July 21, 1911. The son of a former actress and a real-estate salesman, McLuhan entered the University of Manitoba intending to become an engineer, but matriculated in 1934 with an M.A. in English literature. Next came a stint as an oarsman and graduate student at Cambridge, followed by McLuhan's first teaching job—at the University of Wisconsin. It was a pivotal experience. "I was confronted with young Americans I was incapable of understanding," he has since remarked. "I felt an urgent need to study their popular culture in order to get through." With the seeds sown, McLuhan let them germinate while earning a Ph.D., then taught at Catholic universities. (He is a devout Roman Catholic convert.)

His publishing career began with a number of articles on standard academic fare; but by the mid-Forties, his interest in popular culture surfaced, and true McLuhan efforts such as "The Psychopathology of Time and Life" began to appear. They hit book length for the first time in 1951 with the publication of "The Mechanical Bride"—an analysis of the social and psychological pressures generated by the press, radio, movies and advertising—and McLuhan was on his way. Though the book attracted little public notice, it won him the chairmanship of a Ford Foundation seminar on culture and communications and a \$40,000 grant, with part of which he started "Explorations," a small periodical outlet for the seminar's findings. By the late Fifties, his reputation had trickled down to Washington: In 1959, he became director of the Media Project of the National Association of Educational Broadcasters and the United States Office of Education, and the report resulting from this post became the first draft of "Understanding Media." Since 1963, McLuhan has headed the University of Toronto's Center for Culture and Technology, which until recently consisted entirely of McLuhan's office, but now includes a six-room campus building.

Apart from his teaching, lecturing and administrative duties, McLuhan has become a sort of minor communication industry unto himself. Each month he issues to subscribers a mixed-media report called "he McLuhan Dew-Line"; and, punning on that title, he has also originated a series of recordings called "The Marshall McLuhan Dew-Line Plattertudes." McLuhan contributed a characteristically mind-expanding essay about the media—"The Reversal of the Overheated-Image"—to our December 1968 issue. Also a compulsive collaborator, his literary efforts in tandem with colleagues have included a high school textbook and an analysis of the function of space in poetry and painting. "Counterblast," his next book, is a manically graphic trip through the land of his theories.

In order to provide our readers with a map of this labyrinthine terra incognita, PLAYBOY assigned interviewer **Eric Norden** to visit McLuhan at his spacious new home in the wealthy Toronto suburb of Wychwood Park, where he lives with his wife, Corinne, and five of his six children. (His eldest son lives in New York, where he is completing a book on James Joyce, one of his father's heroes.) Norden reports: "Tall, gray and gangly, with a thin but mobile mouth and an otherwise eminently forgettable face, McLuhan was dressed in an ill-fitting brown tweed suit, black shoes and a clip-on necktie. As we talked on into the night before a crackling fire, McLuhan expressed his reservations about the interview—indeed, about the printed word itself—as a means of communication, suggesting that the question-and-answer format might impede the in-depth flow

of his ideas. I assured him that he would have as much time—and space—as he wished to develop his thoughts."

The result has considerably more lucidity and clarity than McLuhan's readers are accustomed to—perhaps because the Q. and A. format serves to pin him down by counteracting his habit of mercurially changing the subject in mid-stream of consciousness. It is also, we think, a protean and provocative distillation not only of McLuhan's original theories about human progress and social institutions but of his almost immobilizingly intricate style—described by novelist George P. Elliott as "deliberately antilogical, circular, repetitious, unqualified, gnomic, outrageous" and, even less charitably, by critic Christopher Ricks as "a viscous fog through which loom stumbling metaphors." But other authorities contend that McLuhan's stylistic medium is part and parcel of his message—that the tightly structured "linear" modes of traditional thought and discourse are obsolescent in the new "postliterate" age of the electric media. Norden began the interview with an allusion to McLuhan's favorite electric medium: television. The Interview:

Interviewer: To borrow Henry Gibson's oft-repeated one-line poem on Rowan and Martin's Laugh-In—"Marshall McLuhan, what are you doin'?"

McLuhan: Sometimes I wonder. I'm making explorations. I don't know where they're going to take me. My work is designed for the pragmatic purpose of trying to understand our technological environment and its psychic and social consequences. But my books constitute the process rather than the completed product of discovery; my purpose is to employ facts as tentative probes, as means of insight, of pattern recognition, rather than to use them in the traditional and sterile sense of classified data, categories, containers. I want to map new terrain rather than chart old landmarks.

But I've never presented such explorations as revealed truth. As an investigator, I have no fixed point of view, no commitment to any theory—my own or anyone else's. As a matter of fact, I'm completely ready to junk any statement I've ever made about any subject if events don't bear me out, or if I discover it isn't contributing to an understanding of the problem. The better part of my work on media is actually somewhat like a safe-cracker's. I don't know what's inside; maybe it's nothing. I just sit down and start to work. I grope, I listen, I test, I accept and discard; I try out different sequences—until the tumblers fall and the doors spring open.

Interviewer: Isn't such a methodology somewhat erratic and inconsistent—if not, as your critics would maintain, eccentric?

McLuhan: Any approach to environmental problems must be sufficiently flexible and adaptable to encompass the entire environmental matrix, which is in constant flux. I consider myself a generalist, not a specialist who has staked out a tiny plot of study as his intellectual turf and is oblivious to everything else. Actually, my work is a depth operation, the accepted practice in most modern disciplines from psychiatry to metallurgy and structural analysis. Effective study of the media deals not only with the content of the media but with the media themselves and the total cultural environment within which the media function. Only by standing aside from any phenomenon and taking an overview can you discover its operative principles and lines of force. There's really nothing inherently startling or radical about this study—except that for some reason few have had the vision to undertake it. For the past 3500 years of the Western world, the effects of media—whether it's speech, writing, printing, photography, radio or television—have been systematically overlooked by social observers. Even in today's revolutionary electronic age, scholars evidence few signs of modifying this traditional stance of ostrichlike disregard.

Interviewer: Why?

McLuhan: Because all media, from the phonetic alphabet to the computer, are extensions of man that cause deep and lasting changes in him and transform his environment. Such an extension is an intensification, an amplification of an organ, sense or function, and whenever it takes place, the central nervous system appears to institute a self-protective numbing of the affected area, insulating and anesthetizing it from conscious awareness of what's happening to it. It's a process rather like that which occurs to the body under shock or stress conditions, or to the mind in line with the Freudian concept of repression. I call this peculiar form of self-hypnosis Narcissus narcosis, a syndrome whereby man remains as unaware of the psychic and social effects of his new technology as a fish of the water it swims in. As a result, precisely at the point where a new media-induced environment becomes all pervasive and transmogrifies our sensory balance, it also becomes invisible.

This problem is doubly acute today because man must, as a simple survival strategy, become aware of what is happening to him, despite the attendant pain of such comprehension. The fact that he has not done so in this age of electronics is what has made this also the age of anxiety, which in turn has been transformed into its Doppelgnger—the therapeutically reactive age of anomie and apathy. But despite our self-protective escape mechanisms, the total-field awareness engendered by electronic media is enabling us—indeed, compelling us—to grope toward a consciousness of the unconscious, toward a realization that technology is an extension of our own bodies. We live in the first age when change occurs sufficiently rapidly to make such pattern recognition possible for society at large. Until the present era, this awareness has always been reflected first by the artist, who has had the power—and courage—of the seer to read the language of the outer world and relate it to the inner world.

Interviewer: Why should it be the artist rather than the scientist who perceives these relationships and foresees these trends?

McLuhan: Because inherent in the artist's creative inspiration is the process of subliminally sniffing out environmental change. It's always been the artist who perceives the alterations in man caused by a new medium, who recognizes that the future is the present, and uses his work to prepare the ground for it. But most people, from truck drivers to the literary Brahmins, are still blissfully ignorant of what the media do to them; unaware that because of their pervasive effects on man, it is the medium itself that is the message, not the content, and unaware that the medium is also the message—that, all puns aside, it literally works over and saturates and molds and transforms every sense ratio. The content or message of any particular medium has about as much importance as the stenciling on the casing of an atomic bomb. But the ability to perceive media-induced extensions of man, once the province of the artist, is now being expanded as the new environment of electric information makes possible a new degree of perception and critical awareness by nonartists.

Interviewer: Is the public, then, at last beginning to perceive the "invisible" contours of these new technological environments

McLuhan: People are beginning to understand the nature of their new technology, but not yet nearly enough of them—and not nearly well enough. Most people, as I indicated, still cling to what I call the rearview-mirror view of their world. By this I mean to say that because of the invisibility of any environment during the period of its innovation, man is only consciously aware of the environment that has preceded it; in other words, an environment becomes fully visible only when it has been superseded by a new environment; thus we are always one step behind in our view of the world. Because we are benumbed by any new technology—which in turn creates a totally new

environment—we tend to make the old environment more visible; we do so by turning it into an art form and by attaching ourselves to the objects and atmosphere that characterized it, just as we've done with jazz, and as we're now doing with the garbage of the mechanical environment via pop art.

The present is always invisible because it's environmental and saturates the whole field of attention so overwhelmingly; thus everyone but the artist, the man of integral awareness, is alive in an earlier day. In the midst of the electronic age of software, of instant information movement, we still believe we're living in the mechanical age of hardware. At the height of the mechanical age, man turned back to earlier centuries in search of "pastoral" values. The Renaissance and the Middle Ages were completely oriented toward Rome; Rome was oriented toward Greece, and the Greeks were oriented toward the pre-Homeric primitives. We reverse the old educational dictum of learning by proceeding from the familiar to the unfamiliar by going from the unfamiliar to the familiar, which is nothing more or less than the numbing mechanism that takes place whenever new media drastically extend our senses.

Interviewer: If this "numbing" effect performs a beneficial role by protecting man from the psychic pain caused by the extensions of his nervous system that you attribute to the media, why are you attempting to dispel it and alert man to the changes in his environment?

McLuhan: In the past, the effects of media were experienced more gradually, allowing the individual and society to absorb and cushion their impact to some degree. Today, in the electronic age of instantaneous communication, I believe that our survival, and at the very least our comfort and happiness, is predicated on understanding the nature of our new environment, because unlike previous environmental changes, the electric media constitute a total and near-instantaneous transformation of culture, values and attitudes. This upheaval generates great pain and identity loss, which can be ameliorated only through a conscious awareness of its dynamics. If we understand the revolutionary transformations caused by new media, we can anticipate and control them; but if we continue in our self-induced subliminal trance, we will be their slaves.

Because of today's terrific speed-up of information moving, we have a chance to apprehend, predict and influence the environmental forces shaping us—and thus win back control of our own destinies. The new extensions of man and the environment they generate are the central manifestations of the evolutionary process, and yet we still cannot free ourselves of the delusion that it is how a medium is used that counts, rather than what it does to us and with us. This is the zombie stance of the technological idiot. It's to escape this Narcissus trance that I've tried to trace and reveal the impact of media on man, from the beginning of recorded time to the present.

Interviewer: Will you trace that impact for us–in condensed form?

McLuhan: It's difficult to condense into the format of an interview such as this, but I'll try to give you a brief rundown of the basic media breakthroughs. You've got to remember that my definition of media is broad; it includes any technology whatever that creates extensions of the human body and senses, from clothing to the computer. And a vital point I must stress again is that societies have always been shaped more by the nature of the media with which men communicate than by the content of the communication. All technology has the property of the Midas touch; whenever a society develops an extension of itself, all other functions of that society tend to be transmuted to accommodate that new form; once any new technology penetrates a society, it saturates every institution of that society. New technology is thus a revolutionizing agent. We see this today with the electric media and we saw it several thousand years ago with the invention of the phonetic

alphabet, which was just as far-reaching an innovation—and had just as profound consequences for man.

Interviewer: What were they?

McLuhan: Before the invention of the phonetic alphabet, man lived in a world where all the senses were balanced and simultaneous, a closed world of tribal depth and resonance, an oral culture structured by a dominant auditory sense of life. The ear, as opposed to the cool and neutral eye, is sensitive, hyperaesthetic and all-inclusive, and contributes to the seamless web of tribal kinship and interdependence in which all members of the group existed in harmony. The primary medium of communication was speech, and thus no man knew appreciably more or less than any other—which meant that there was little individualism and specialization, the hallmarks of "civilized" Western man. Tribal cultures even today simply cannot comprehend the concept of the individual or of the separate and independent citizen. Oral cultures act and react simultaneously, whereas the capacity to act without reacting, without involvement, is the special gift of "detached" literate man. Another basic characteristic distinguishing tribal man from his literate successors is that he lived in a world of acoustic space, which gave him a radically different concept of time-space relationships.

Interviewer: What do you mean by "acoustic space"?

McLuhan: I mean space that has no center and no margin, unlike strictly visual space, which is an extension and intensification of the eye. Acoustic space is organic and integral, perceived through the simultaneous interplay of all the senses; whereas "rational" or pictorial space is uniform, sequential and continuous and creates a closed world with none of the rich resonance of the tribal echoland. Our own Western time-space concepts derive from the environment created by the discovery of phonetic writing, as does our entire concept of Western civilization. The man of the tribal world led a complex, kaleidoscopic life precisely because the ear, unlike the eye, cannot be focused and is synaesthetic rather than analytical and linear. Speech is an utterance, or more precisely, an outering, of all our senses at once; the auditory field is simultaneous, the visual successive. The models of life of nonliterate people were implicit, simultaneous and discontinuous, and also far richer than those of literate man. By their dependence on the spoken word for information, people were drawn together into a tribal mesh; and since the spoken word is more emotionally laden than the written-conveying by intonation such rich emotions as anger, joy, sorrow, fear-tribal man was more spontaneous and passionately volatile. Audile-tactile tribal man partook of the collective unconscious, lived in a magical integral world patterned by myth and ritual, its values divine and unchallenged, whereas literate or visual man creates an environment that is strongly fragmented, individualistic, explicit, logical, specialized and detached.

Interviewer: Was it phonetic literacy alone that precipitated this profound shift of values from tribal involvement to "civilized" detachment?

McLuhan: Yes, it was. Any culture is an order of sensory preferences, and in the tribal world, the senses of touch, taste, hearing and smell were developed, for very practical reasons, to a much higher level than the strictly visual. Into this world, the phonetic alphabet fell like a bombshell, installing sight at the head of the hierarchy of senses. Literacy propelled man from the tribe, gave him an eye for an ear and replaced his integral in-depth communal interplay with visual linear values and fragmented consciousness. As an intensification and amplification of the visual function, the phonetic alphabet diminished the role of the senses of hearing and touch and taste

and smell, permeating the discontinuous culture of tribal man and translating its organic harmony and complex synaesthesia into the uniform, connected and visual mode that we still consider the norm of "rational" existence. The whole man became fragmented man; the alphabet shattered the charmed circle and resonating magic of the tribal world, exploding man into an agglomeration of specialized and psychically impoverished "individuals," or units, functioning in a world of linear time and Euclidean space.

Interviewer: But literate societies existed in the ancient world long before the phonetic alphabet. Why weren't they detribalized?

McLuhan: The phonetic alphabet did not change or extend man so drastically just because it enabled him to read; as you point out, tribal culture had already coexisted with other written languages for thousands of years. But the phonetic alphabet was radically different from the older and richer hieroglyphic or ideogrammic cultures. The writings of Egyptian, Babylonian, Mayan and Chinese cultures were an extension of the senses in that they gave pictorial expression to reality, and they demanded many signs to cover the wide range of data in their societies—unlike phonetic writing, which uses semantically meaningless letters to correspond to semantically meaningless sounds and is able, with only a handful of letters, to encompass all meanings and all languages. This achievement demanded the separation of both sights and sounds from their semantic and dramatic meanings in order to render visible the actual sound of speech, thus placing a barrier between men and objects and creating a dualism between sight and sound. It divorced the visual function from the interplay with the other senses and thus led to the rejection from consciousness of vital areas of our sensory experience and to the resultant atrophy of the unconscious. The balance of the sensorium-or Gestalt interplay of all the senses-and the psychic and social harmony it engendered was disrupted, and the visual function was overdeveloped. This was true of no other writing system.

Interviewer: How can you be so sure that this all occurred solely because of phonetic literacy—or, in fact, if it occurred at all?

McLuhan: You don't have to go back 3000 or 4000 years to see this process at work; in Africa today, a single generation of alphabetic literacy is enough to wrench the individual from the tribal web. When tribal man becomes phonetically literate, he may have an improved abstract intellectual grasp of the world, but most of the deeply emotional corporate family feeling is excised from his relationship with his social milieu. This division of sight and sound and meaning causes deep psychological effects, and he suffers a corresponding separation and impoverishment of his imaginative, emotional and sensory life. He begins reasoning in a sequential linear fashion; he begins categorizing and classifying data. As knowledge is extended in alphabetic form, it is localized and fragmented into specialties, creating division of function, of social classes, of nations and of knowledge—and in the process, the rich interplay of all the senses that characterized the tribal society is sacrificed.

Interviewer: But aren't there corresponding gains in insight, understanding and cultural diversity to compensate detribalized man for the loss of his communal values?

McLuhan: Your question reflects all the institutionalized biases of literate man. Literacy, contrary to the popular view of the "civilizing" process you've just echoed, creates people who are much less complex and diverse than those who develop in the intricate web of oral-tribal societies. Tribal man, unlike homogenized Western man, was not differentiated by his specialist talents or his visible characteristics, but by his unique emotional blends. The internal world of the tribal man was a

creative mix of complex emotions and feelings that literate men of the Western world have allowed to wither or have suppressed in the name of efficiency and practicality. The alphabet served to neutralize all these rich divergencies of tribal cultures by translating their complexities into simple visual forms; and the visual sense, remember, is the only one that allows us to detach; all other senses involve us, but the detachment bred by literacy disinvolves and detribalizes man. He separates from the tribe as a predominantly visual man who shares standardized attitudes, habits and rights with other civilized men. But he is also given a tremendous advantage over the nonliterate tribal man who, today as in ancient times, is hamstrung by cultural pluralism, uniqueness and discontinuity—values that make the African as easy prey for the European colonialist as the barbarian was for the Greeks and Romans. Only alphabetic cultures have ever succeeded in mastering connected linear sequences as a means of social and psychic organization; the separation of all kinds of experiences into uniform and continuous units in order to generate accelerated action and alteration of form—in other words, applied knowledge—has been the secret of Western man's ascendancy over other men as well as over his environment.

Interviewer: Isn't the thrust of your argument, then, that the introduction of the phonetic alphabet was not progress, as has generally been assumed, but a psychic and social disaster?

McLuhan: It was both. It try to avoid value judgments in these areas, but there is much evidence to suggest that man may have paid too dear a price for his new environment of specialist technology and values. Schizophrenia and alienation may be the inevitable consequences of phonetic literacy. It's metaphorically significant, I suspect, that the old Greek myth has Cadmus, who brought the alphabet to man, sowing dragon's teeth that sprang up from the earth as armed men. Whenever the dragon's teeth of technological change are sown, we reap a whirlwind of violence. We saw this clearly in classical times, although it was somewhat moderated because phonetic literacy did not win an overnight victory over primitive values and institutions; rather, it permeated ancient society in a gradual, if inexorable, evolutionary process.

Interviewer: How long did the old tribal culture endure?

McLuhan: In isolated pockets, it held on until the invention of printing in the 16th Century, which was a vastly important qualitative extension of phonetic literacy. If the phonetic alphabet fell like a bombshell on tribal man, the printing press hit him like a 100-megaton H-bomb. The printing press was the ultimate extension of phonetic literacy: Books could be reproduced in infinite numbers; universal literacy was at last fully possible, if gradually realized; and books became portable individual possessions. Type, the prototype of all machines, ensured the primacy of the visual bias and finally sealed the doom of tribal man. The new medium of linear, uniform, repeatable type reproduced information in unlimited quantities and at hitherto-impossible speeds, thus assuring the eye a position of total predominance in man's sensorium. As a drastic extension of man, it shaped and transformed his entire environment, psychic and social, and was directly responsible for the rise of such disparate phenomena as nationalism, the Reformation, the assembly line and its offspring, the Industrial Revolution, the whole concept of causality, Cartesian and Newtonian concepts of the universe, perspective in art, narrative chronology in literature and a psychological mode of introspection or inner direction that greatly intensified the tendencies toward individualism and specialization engendered 2000 years before by phonetic literacy. The schism between thought and action was institutionalized, and fragmented man, first sundered by the alphabet, was at last diced into bite-sized tidbits. From that point on, Western man was Gutenberg man.

Interviewer: Even accepting the principle that technological innovations generate far-reaching environmental changes, many of your readers find it difficult to understand how you can hold the development of printing responsible for such apparently unrelated phenomena as nationalism and industrialism.

McLuhan: The key word is "apparently." Look a bit closer at both nationalism and industrialism and you'll see that both derived directly from the explosion of print technology in the 16th Century. Nationalism didn't exist in Europe until the Renaissance, when typography enabled every literate man to see his mother tongue analytically as a uniform entity. The printing press, by spreading mass-produced books and printed matter across Europe, turned the vernacular regional languages of the day into uniform closed systems of national languages—just another variant of what we call mass media—and gave birth to the entire concept of nationalism.

The individual newly homogenized by print saw the nation concept as an intense and beguiling image of group destiny and status. With print, the homogeneity of money, markets and transport also became possible for the first time, thus creating economic as well as political unity and triggering all the dynamic centralizing energies of contemporary nationalism. By creating a speed of information movement unthinkable before printing, the Gutenberg revolution thus produced a new type of visual centralized national entity that was gradually merged with commercial expansion until Europe was a network of states.

By fostering continuity and competition within homogeneous and contiguous territory, nationalism not only forged new nations but sealed the doom of the old corporate, noncompetitive and discontinuous medieval order of guilds and family-structured social organization; print demanded both personal fragmentation and social uniformity, the natural expression of which was the nation-state. Literate nationalism's tremendous speed-up of information movement accelerated the specialist function that was nurtured by phonetic literacy and nourished by Gutenberg, and rendered obsolete such generalist encyclopedic figures as Benvenuto Cellini, the goldsmith-cum-condottiere-cum-painter-cum-sculptor-cum -writer; it was the Renaissance that destroyed Renaissance Man.

Interviewer: Why do you feel that Gutenberg also laid the groundwork for the Industrial Revolution?

McLuhan: The two go hand in hand. Printing, remember, was the first mechanization of a complex handicraft; by creating an analytic sequence of step-by-step processes, it became the blue-print of all mechanization to follow. The most important quality of print is its repeatability; it is a visual statement that can be reproduced indefinitely, and repeatability is the root of the mechanical principle that has transformed the world since Gutenberg. Typography, by producing the first uniformly repeatable commodity, also created Henry Ford, the first assembly line and the first mass production. Movable type was archetype and prototype for all subsequent industrial development. Without phonetic literacy and the printing press, modern industrialism would be impossible. It is necessary to recognize literacy as typographic technology, shaping not only production and marketing procedures but all other areas of life, from education to city planning.

Interviewer: You seem to be contending that practically every aspect of modern life is a direct consequence of Gutenberg's invention of the printing press.

McLuhan: Every aspect of Western mechanical culture was shaped by print technology, but the modern age is the age of the electric media, which forge environments and cultures antithetical to the mechanical consumer society derived from print. Print tore man out of his traditional cultural matrix while showing him how to pile individual upon individual into a massive agglomeration of

national and industrial power, and the typographic trance of the West has endured until today, when the electronic media are at last demesmerizing us. The Gutenberg Galaxy is being eclipsed by the constellation of Marconi.

Interviewer: You've discussed that constellation in general terms, but what precisely are the electric media that you contend have supplanted the old mechanical technology?

McLuhan: The electric media are the telegraph, radio, films, telephone, computer and television, all of which have not only extended a single sense or function as the old mechanical media didice., the wheel as an extension of the foot, clothing as an extension of the skin, the phonetic alphabet as an extension of the eye—but have enhanced and externalized our entire central nervous systems, thus transforming all aspects of our social and psychic existence. The use of the electronic media constitutes a break boundary between fragmented Gutenberg man and integral man, just as phonetic literacy was a break boundary between oral-tribal man and visual man.

In fact, today we can look back at 3000 years of differing degrees of visualization, atomization and mechanization and at last recognize the mechanical age as an interlude between two great organic eras of culture. The age of print, which held sway from approximately 1500 to 1900, had its obituary tapped out by the telegraph, the first of the new electric media, and further obsequies were registered by the perception of "curved space" and non-Euclidean mathematics in the early years of the century, which revived tribal man's discontinuous time-space concepts—and which even Spengler dimly perceived as the death knell of Western literate values. The development of telephone, radio, film, television and the computer have driven further nails into the coffin. Today, television is the most significant of the electric media because it permeates nearly every home in the country, extending the central nervous system of every viewer as it works over and molds the entire sensorium with the ultimate message. It is television that is primarily responsible for ending the visual supremacy that characterized all mechanical technology, although each of the other electric media have played contributing roles.

Interviewer: But isn't television itself a primarily visual medium?

McLuhan: No, it's quite the opposite, although the idea that TV is a visual extension is an understandable mistake. Unlike film or photograph, television is primarily an extension of the sense of touch rather than of sight, and it is the tactile sense that demands the greatest interplay of all the senses. The secret of TV's tactile power is that the video image is one of low intensity or definition and thus, unlike either photograph or film, offers no detailed information about specific objects but instead involves the active participation of the viewer. The TV image is a mosaic mesh not only of horizontal lines but of millions of tiny dots, of which the viewer is physiologically able to pick up only 50 or 60 from which he shapes the image; thus he is constantly filling in vague and blurry images, bringing himself into in-depth involvement with the screen and acting out a constant creative dialog with the iconoscope. The contours of the resultant cartoonlike image are fleshed out within the imagination of the viewer, which necessitates great personal involvement and participation; the viewer, in fact, becomes the screen, whereas in film he becomes the camera. By requiring us to constantly fill in the spaces of the mosaic mesh, the iconoscope is tattooing its message directly on our skins. Each viewer is thus an unconscious pointillist painter like Seurat, limning new shapes and images as the iconoscope washes over his entire body. Since the point of focus for a TV set is the viewer, television is Orientalizing us by causing us all to begin to look within ourselves. The essence of TV viewing is, in short, intense participation and low definition—what I call a "cool" experience, as opposed to an essentially "hot," or high definition-low participation, medium like radio.

Interviewer: A good deal of the perplexity surrounding your theories is related to this postulation of hot and cool media. Could you give us a brief definition of each?

McLuhan: Basically, a hot medium excludes and a cool medium includes; hot media are low in participation, or completion, by the audience and cool media are high in participation. A hot medium is one that extends a single sense with high definition. High definition means a complete filling in of data by the medium without intense audience participation. A photograph, for example, is high definition or hot; whereas a cartoon is low definition or cool, because the rough outline drawing provides very little visual data and requires the viewer to fill in or complete the image himself. The telephone, which gives the ear relatively little data, is thus cool, as is speech; both demand considerable filling in by the listener. On the other hand, radio is a hot medium because it sharply and intensely provides great amounts of high-definition auditory information that leaves little or nothing to be filled in by the audience. A lecture, by the same token, is hot, but a seminar is cool; a book is hot, but a conversation or bull session is cool.

In a cool medium, the audience is an active constituent of the viewing or listening experience. A girl wearing open-mesh silk stockings or glasses is inherently cool and sensual because the eye acts as a surrogate hand in filling in the low-definition image thus engendered. Which is why boys make passes at girls who wear glasses. In any case, the overwhelming majority of our technologies and entertainments since the introduction of print technology have been hot, fragmented and exclusive, but in the age of television we see a return to cool values and the inclusive in-depth involvement and participation they engender. This is, of course, just one more reason why the medium is the message, rather than the content; it is the participatory nature of the TV experience itself that is important, rather than the content of the particular TV image that is being invisibly and indelibly inscribed on our skins.

Interviewer: Even if, as you contend, the medium is the ultimate message, how can you entirely discount the importance of content? Didn't the content of Hitler's radio speeches, for example, have some effect on the Germans?

McLuhan: By stressing that the medium is the message rather than the content, I'm not suggesting that content plays no role—merely that it plays a distinctly subordinate role. Even if Hitler had delivered botany lectures, some other demagog would have used the radio to retribalize the Germans and rekindle the dark atavistic side of the tribal nature that created European fascism in the Twenties and Thirties. By placing all the stress on content and practically none on the medium, we lose all chance of perceiving and influencing the impact of new technologies on man, and thus we are always dumfounded by—and unprepared for—the revolutionary environmental transformations induced by new media. Buffeted by environmental changes he cannot comprehend, man echoes the last plaintive cry of his tribal ancestor, Tarzan, as he plummeted to earth: "Who greased my vine?" The German Jew victimized by the Nazis because his old tribalism clashed with their new tribalism could no more understand why his world was turned upside down than the American today can understand the reconfiguration of social and political institutions caused by the electric media in general and television in particular.

Interviewer: How is television reshaping our political institutions?

McLuhan: TV is revolutionizing every political system in the Western world. For one thing, it's creating a totally new type of national leader, a man who is much more of a tribal chieftain than a politician. Castro is a good example of the new tribal chieftain who rules his country by a mass-participational TV dialog and feedback; he governs his country on camera, by giving the

Cuban people the experience of being directly and intimately involved in the process of collective decision making. Castro's adroit blend of political education, propaganda and avuncular guidance is the pattern for tribal chieftains in other countries. The new political showman has to literally as well as figuratively put on his audience as he would a suit of clothes and become a corporate tribal image—like Mussolini, Hitler and F.D.R. in the days of radio, and Jack Kennedy in the television era. All these men were tribal emperors on a scale theretofore unknown in the world, because they all mastered their media. . . . The overhauling of our traditional political system is only one manifestation of the retribalizing process wrought by the electric media, which is turning the planet into a global village.

Interviewer: Would you describe this retribalizing process in more detail?

McLuhan: The electronically induced technological extensions of our central nervous systems, which I spoke of earlier, are immersing us in a world-pool of information movement and are thus enabling man to incorporate within himself the whole of mankind. The aloof and dissociated role of the literate man of the Western world is succumbing to the new, intense depth participation engendered by the electronic media and bringing us back in touch with ourselves as well as with one another. But the instant nature of electric-information movement is decentralizing—rather than enlarging—the family of man into a new state of multitudinous tribal existences. Particularly in countries where literate values are deeply institutionalized, this is a highly traumatic process, since the clash of the old segmented visual culture and the new integral electronic culture creates a crisis of identity, a vacuum of the self, which generates tremendous violence—violence that is simply an identity quest, private or corporate, social or commercial.

Interviewer: Do you relate this identity crisis to the current social unrest and violence in the United States?

McLuhan: Yes, and to the booming business psychiatrists are doing. All our alienation and atomization are reflected in the crumbling of such time-honored social values as the right of privacy and the sanctity of the individual; as they yield to the intensities of the new technology's electric circus, it seems to the average citizen that the sky is falling in. As man is tribally metamorphosed by the electric media, we all become Chicken Littles, scurrying around frantically in search of our former identities, and in the process unleash tremendous violence. As the preliterate confronts the literate in the postliterate arena, as new information patterns inundate and uproot the old, mental breakdowns of varying degrees—including the collective nervous breakdowns of whole societies unable to resolve their crises of identity—will become very common.

It is not an easy period in which to live, especially for the television-conditioned young who, unlike their literate elders, cannot take refuge in the zombie trance of Narcissus narcosis that numbs the state of psychic shock induced by the impact of the new media. From Tokyo to Paris to Columbia, youth mindlessly acts out its identity quest in the theater of the streets, searching not for goals but for roles, striving for an identity that eludes them.

Interviewer: Why do you think they aren't finding it within the educational system?

McLuhan: Because education, which should be helping youth to understand and adapt to their revolutionary new environments, is instead being used merely as an instrument of cultural aggression, imposing upon retribalized youth the obsolescent visual values of the dying literate age. Our entire educational system is reactionary, oriented to past values and past technologies, and will likely continue so until the old generation relinquishes power. The generation gap is actually a

chasm, separating not two age groups but two vastly divergent cultures. I can understand the ferment in our schools, because our educational system is totally rearview mirror. It's a dying and outdated system founded on literate values and fragmented and classified data totally unsuited to the needs of the first television generation.

Interviewer: How do you think the educational system can be adapted to accommodate the needs of this television generation?

McLuhan: Well, before we can start doing things the right way, we've got to recognize that we've been doing them the wrong way—which most pedagogs and administrators and even most parents still refuse to accept. Today's child is growing up absurd because he is suspended between two worlds and two value systems, neither of which inclines him to maturity because he belongs wholly to neither but exists in a hybrid limbo of constantly conflicting values. The challenge of the new era is simply the total creative process of growing up—and mere teaching and repetition of facts are as irrelevant to this process as a dowser to a nuclear power plant. To expect a "turned on" child of the electric age to respond to the old education modes is rather like expecting an eagle to swim. It's simply not within his environment, and therefore incomprehensible.

The TV child finds if difficult if not impossible to adjust to the fragmented, visual goals of our education after having had all his senses involved by the electric media; he craves in-depth involvement, not linear detachment and uniform sequential patterns. But suddenly and without preparation, he is snatched from the cool, inclusive womb of television and exposed—within a vast bureaucratic structure of courses and credits—to the hot medium of print. His natural instinct, conditioned by the electric media, is to bring all his senses to bear on the book he's instructed to read, and print resolutely rejects that approach, demanding an isolated visual attitude to learning rather than the Gestalt approach of the unified sensorium. The reading postures of children in elementary school are a pathetic testimonial to the effects of television; children of the TV generation separate book from eye by an average distance of four and a half inches, attempting psychomimetically to bring to the printed page the all-inclusive sensory experience of TV. They are becoming Cyclops, desperately seeking to wallow in the book as they do in the TV screen.

Interviewer: Might it be possible for the "TV child" to make the adjustment to his educational environment by synthesizing traditional literate-visual forms with the insights of his own electric culture—or must the medium of print be totally unassimilable for him?

McLuhan: Such a synthesis is entirely possible, and could create a creative blend of the two cultures—if the educational establishment was aware that there is an electric culture. In the absence of such elementary awareness, I'm afraid that the television child has no future in our schools. You must remember that the TV child has been relentlessly exposed to all the "adult" news of the modern world—war, racial discrimination, rioting, crime, inflation, sexual revolution. The war in Vietnam has written its bloody message on his skin; he has witnessed the assassinations and funerals of the nation's leaders; he's been orbited through the TV screen into the astronaut's dance in space, been inundated by information transmitted via radio, telephone, films, recordings and other people. His parents plopped him down in front of a TV set at the age of two to tranquilize him, and by the time he enters kindergarten, he's clocked as much as 4000 hours of television. As an IBM executive told me, "My children had lived several lifetimes compared to their grandparents when they began grade one."

Interviewer: If you had children young enough to belong to the TV generation, how would you educate them?

McLuhan: Certainly not in our current schools, which are intellectual penal institutions. In today's world, to paraphrase Jefferson, the least education is the best education, since very few young minds can survive the intellectual tortures of our educational system. The mosaic image of the TV screen generates a depth-involving nowness and simultaneity in the lives of children that makes them scorn the distant visualized goals of traditional education as unreal, irrelevant and puerile. Another basic problem is that in our schools there is simply too much to learn by the traditional analytic methods; this is an age of information overload. The only way to make the schools other than prisons without bars is to start fresh with new techniques and values. . . .

Interviewer: [You have indicated that the United States as a nation is doomed.] On what do you base your prediction that the United States will disintegrate?

McLuhan: Actually, in this case as in most of my work, I'm "predicting" what has already happened and merely extrapolating a current process to its logical conclusion. The Balkanization of the United States as a continental political structure has been going on for some years now, and racial chaos is merely one of several catalysts for change. This isn't a peculiarly American phenomenon; as I pointed out earlier, the electric media always produce psychically integrating and socially decentralizing effects, and this affects not only political institutions within the existing state but the national entities themselves.

All over the world, we can see how the electric media are stimulating the rise of ministates: In Great Britain, Welsh and Scottish nationalism are recrudescing powerfully; in Spain, the Basques are demanding autonomy; in Belgium, the Flemings insist on separation from the Walloons; in my own country, the Quebecois are in the first stages of a war of independence; and in Africa, we've witnessed the germination of several ministates and the collapse of several ambitiously unrealistic schemes for regional confederation. These ministates are just the opposite of the traditional centralizing nationalisms of the past that forged mass states that homogenized disparate ethnic and linguistic groups within one national boundary. The new ministates are decentralized tribal agglomerates of those same ethnic and linguistic groups. Though their creation may be accompanied by violence, they will not remain hostile or competitive armed camps but will eventually discover that their tribal bonds transcend their differences and will thereafter live in harmony and cultural cross-fertilization with one another.

This pattern of decentralized ministates will be repeated in the United States, although I realize that most Americans still find the thought of the Union's dissolution inconceivable. The U.S., which was the first nation in history to begin its national existence as a centralized and literate political entity, will now play the historical film backward, reeling into a multiplicity of decentralized Negro states, Indian states, regional states, linguistic and ethnic states, etc. Decentralism is today the burning issue in the 50 states, from the school crisis in New York City to the demands of the retribalized young that the oppressive multiversities be reduced to a human scale and the mass state be debureaucratized. The tribes and the bureaucracy are antithetical means of social organization and can never coexist peacefully; one must destroy and supplant the other, or neither will survive.

Interviewer: Accepting, for the moment, your contention that the United States will be "Balkanized" into an assortment of ethnic and linguistic ministates, isn't it likely that the results would be social chaos and internecine warfare?

McLuhan: Not necessarily. Violence can be avoided if we comprehend the process of decentralism and retribalization, and accept its outcome while moving to control and modify the dynamics of change. In any case, the day of the stupor state is over; as men not only in the U.S. but throughout

the world are united into a single tribe, they will forge a diversity of viable decentralized political and social institutions.

Interviewer: Along what lines?

McLuhan: It will be a totally retribalized world of depth involvements. Through radio, TV and the computer, we are already entering a global theater in which the entire world is a Happening. Our whole cultural habitat, which we once viewed as a mere container of people, is being transformed by these media and by space satellites into a living organism, itself contained within a new macrocosm or connubium of a supraterrestrial nature. The day of the individualist, of privacy, of fragmented or "applied" knowledge, of "points of view" and specialist goals is being replaced by the overall awareness of a mosaic world in which space and time are overcome by television, jets and computers—a simultaneous, "all-at-once" world in which everything resonates with everything else as in a total electrical field, a world in which energy is generated and perceived not by the traditional connections that create linear, causative thought processes, but by the intervals, or gaps, which Linus Pauling grasps as the languages of cells, and which create synaesthetic discontinuous integral consciousness.

The open society, the visual offspring of phonetic literacy, is irrelevant to today's retribalized youth; and the closed society, the product of speech, drum and ear technologies, is thus being reborn. After centuries of dissociated sensibilities, modern awareness is once more becoming integral and inclusive, as the entire human family is sealed to a single universal membrane. The compressional, implosive nature of the new electric technology is retrogressing Western man back from the open plateaus of literate values and into the heart of tribal darkness, into what Joseph Conrad termed "the Africa within."

Interviewer: Many critics feel that your own "Africa within" promises to be a rigidly conformist hive world in which the individual is totally subordinate to the group and personal freedom is unknown.

McLuhan: Individual talents and perspectives don't have to shrivel within a retribalized society; they merely interact within a group consciousness that has the potential for releasing far more creativity than the old atomized culture. Literate man is alienated, impoverished man; retribalized man can lead a far richer and more fulfilling life—not the life of a mindless drone but of the participant in a seamless web of interdependence and harmony. The implosion of electric technology is transmogrifying literate, fragmented man into a complex and depth-structured human being with a deep emotional awareness of his complete interdependence with all of humanity. The old "individualistic" print society was one where the individual was "free" only to be alienated and dissociated, a rootless outsider bereft of tribal dreams; our new electronic environment compels commitment and participation, and fulfills man's psychic and social needs at profound levels.

The tribe, you see, is not conformist just because it's inclusive; after all, there is far more diversity and less conformity within a family group than there is within an urban conglomerate housing thousands of families. It's in the village where eccentricity lingers, in the big city where uniformity and impersonality are the milieu. The global-village conditions being forged by the electric technology stimulate more discontinuity and diversity and division than the old mechanical, standardized society; in fact, the global village makes maximum disagreement and creative dialog inevitable. Uniformity and tranquillity are not hallmarks of the global village; far more likely are conflict and discord as well as love and harmony—the customary life mode of any tribal people.

Interviewer: Despite what you've said, haven't literate cultures been the only ones to value the concepts of individual freedom, and haven't tribal societies traditionally imposed rigid social taboos—as you suggested earlier in regard to sexual behavior—and ruthlessly punished all who do not conform to tribal values?

McLuhan: We confront a basic paradox whenever we discuss personal freedom in literate and tribal cultures. Literate mechanical society separated the individual from the group in space, engendering privacy; in thought, engendering point of view; and in work, engendering specialism—thus forging all the values associated with individualism. But at the same time, print technology has homogenized man, creating mass militarism, mass mind and mass uniformity; print gave man private habits of individualism and a public role of absolute conformity. That is why the young today welcome their retribalization, however dimly they perceive it, as a release from the uniformity, alienation and dehumanization of literate society. Print centralizes socially and fragments psychically, whereas the electric media bring man together in a tribal village that is a rich and creative mix, where there is actually more room for creative diversity than within the homogenized mass urban society of Western man.

Interviewer: Are you claiming, now, that there will be no taboos in the world tribal society you envision?

McLuhan: No, I'm not saying that, and I'm not claiming that freedom will be absolute—merely that it will be less restricted than your question implies. The world tribe will be essentially conservative, it's true, like all iconic and inclusive societies; a mythic environment lives beyond time and space and thus generates little radical social change. All technology becomes part of a shared ritual that the tribe desperately strives to keep stabilized and permanent; by its very nature, an oral-tribal society—such as Pharaonic Egypt—is far more stable and enduring than any fragmented visual society. The oral and auditory tribal society is patterned by acoustic space, a total and simultaneous field of relations alien to the visual world, in which points of view and goals make social change an inevitable and constant by product. An electrically imploded tribal society discards the linear forward-motion of "progress." We can see in our own time how, as we begin to react in depth to the challenges of the global village, we all become reactionaries.

Interviewer: That can hardly be said of the young, whom you claim are leading the process of retribalization, and according to most estimates are also the most radical generation in our history.

McLuhan: Ah, but you're talking about politics, about goals and issues, which are really quite irrelevant. I'm saying that the result, not the current process, of retribalization makes us reactionary in our basic attitudes and values. Once we are enmeshed in the magical resonance of the tribal echo chamber, the debunking of myths and legends is replaced by their religious study. Within the consensual framework of tribal values, there will be unending diversity—but there will be few if any rebels who challenge the tribe itself.

The instant involvement that accompanies instant technologies triggers a conservative, stabilizing, gyroscopic function in man, as reflected by the second-grader who, when requested by her teacher to compose a poem after the first Sputnik was launched into orbit, wrote: "The stars are so big / The earth is so small / Stay as you are." The little girl who wrote those lines is part of the new tribal society; she lives in a world infinitely more complex, vast and eternal than any scientist has instruments to measure or imagination to describe.

Interviewer: If personal freedom will still exist—although restricted by certain consensual taboos—in this new tribal world, what about the political system most closely associated with individual freedom: democracy? Will it, too, survive the transition to your global village?

McLuhan: No, it will not. The day of political democracy as we know it today is finished. Let me stress again that individual freedom itself will not be submerged in the new tribal society, but it will certainly assume different and more complex dimensions. The ballot box, for example, is the product of literate Western culture—a hot box in a cool world—and thus obsolescent. The tribal will is consensually expressed through the simultaneous interplay of all members of a community that is deeply interrelated and involved, and would thus consider the casting of a "private" ballot in a shrouded polling booth a ludicrous anachronism. The TV networks' computers, by "projecting" a victor in a Presidential race while the polls are still open, have already rendered the traditional electoral process obsolescent.

In our software world of instant electric communications movement, politics is shifting from the old patterns of political representation by electoral delegation to a new form of spontaneous and instantaneous communal involvement in all areas of decision making. In a tribal all-at-once culture, the idea of the "public" as a differentiated agglomerate of fragmented individuals, all dissimilar but all capable of acting in basically the same way, like interchangeable mechanical cogs in a production line, is supplanted by a mass society in which personal diversity is encouraged while at the same time everybody reacts and interacts simultaneously to every stimulus. The election as we know it today will be meaningless in such a society.

Interviewer: How will the popular will be registered in the new tribal society if elections are pass?

McLuhan: The electric media open up totally new means of registering popular opinion. The old concept of the plebiscite, for example, may take on new relevance; TV could conduct daily plebiscites by presenting facts to 200,000,000 people and providing a computerized feedback of the popular will. But voting, in the traditional sense, is through as we leave the age of political parties, political issues and political goals, and enter an age where the collective tribal image and the iconic image of the tribal chieftain is the overriding political reality. But that's only one of countless new realities we'll be confronted with in the tribal village. We must understand that a totally new society is coming into being, one that rejects all our old values, conditioned responses, attitudes and institutions. If you have difficulty envisioning something as trivial as the imminent end of elections, you'll be totally unprepared to cope with the prospect of the forthcoming demise of spoken language and its replacement by a global consciousness.

Interviewer: You're right.

McLuhan: Let me help you. Tribal man is tightly sealed in an integral collective awareness that transcends conventional boundaries of time and space. As such, the new society will be one mythic integration, a resonating world akin to the old tribal echo chamber where magic will live again: a world of ESP. The current interest of youth in astrology, clairvoyance and the occult is no coincidence. Electric technology, you see, does not require words any more than a digital computer requires numbers. Electricity makes possible—and not in the distant future, either—an amplification of human consciousness on a world scale, without any verbalization at all.

Interviewer: Are you talking about global telepathy?

McLuhan: Precisely. Already, computers offer the potential of instantaneous translation of any code or language into any other code or language. If a data feedback is possible through the

computer, why not a feed-forward of thought whereby a world consciousness links into a world computer? Via the computer, we could logically proceed from translating languages to bypassing them entirely in favor of an integral cosmic unconsciousness somewhat similar to the collective unconscious envisioned by Bergson. The computer thus holds out the promise of a technologically engendered state of universal understanding and unity, a state of absorption in the logos that could knit mankind into one family and create a perpetuity of collective harmony and peace. This is the real use of the computer, not to expedite marketing or solve technical problems but to speed the process of discovery and orchestrate terrestrial—and eventually galactic—nvironments and energies. Psychic communal integration, made possible at last by the electronic media, could create the universality of consciousness foreseen by Dante when he predicted that men would continue as no more than broken fragments until they were unified into an inclusive consciousness. In a Christian sense, this is merely a new interpretation of the mystical body of Christ; and Christ, after all, is the ultimate extension of man.

Interviewer: Isn't this projection of an electronically induced world consciousness more mystical than technological?

McLuhan: Yes—as mystical as the most advanced theories of modern nuclear physics. Mysticism is just tomorrow's science dreamed today.

Interviewer: You said a few minutes ago that all of contemporary man's traditional values, attitudes and institutions are going to be destroyed and replaced in and by the new electric age. That's a pretty sweeping generalization. Apart from the complex psychosocial metamorphoses you've mentioned, would you explain in more detail some of the specific changes you foresee?

McLuhan: The transformations are taking place everywhere around us. As the old value systems crumble, so do all the institutional clothing and garb-age they fashioned. The cities, corporate extensions of our physical organs, are withering and being translated along with all other such extensions into information systems, as television and the jet—by compressing time and space—make all the world one village and destroy the old city-country dichotomy. New York, Chicago, Los Angeles—all will disappear like the dinosaur. The automobile, too, will soon be as obsolete as the cities it is currently strangling, replaced by new antigravitational technology. The marketing systems and the stock market as we know them today will soon be dead as the dodo, and automation will end the traditional concept of the job, replacing it with a role, and giving men the breath of leisure. The electric media will create a world of dropouts from the old fragmented society, with its neatly compartmentalized analytic functions, and cause people to drop in to the new integrated global-village community.

All these convulsive changes, as I've already noted, carry with them attendant pain, violence and war—the normal stigmata of the identity quest—but the new society is springing so quickly from the ashes of the old that I believe it will be possible to avoid the transitional anarchy many predict. Automation and cybernation can play an essential role in smoothing the transition to the new society.

Interviewer: How?

McLuhan: The computer can be used to direct a network of global thermostats to pattern life in ways that will optimize human awareness. Already, it's technologically feasible to employ the computer to program societies in beneficial ways.

Interviewer: How do you program an entire society—beneficially or otherwise?

McLuhan: There's nothing at all difficult about putting computers in the position where they will be able to conduct carefully orchestrated programing of the sensory life of whole populations. I know it sounds rather science-fictional, but if you understood cybernetics you'd realize we could do it today. The computer could program the media to determine the given messages a people should hear in terms of their over-all needs, creating a total media experience absorbed and patterned by all the senses. We could program five hours less of TV in Italy to promote the reading of newspapers during an election, or lay on an additional 25 hours of TV in Venezuela to cool down the tribal temperature raised by radio the preceding month. By such orchestrated interplay of all media, whole cultures could now be programed in order to improve and stabilize their emotional climate, just as we are beginning to learn how to maintain equilibrium among the world's competing economies.

Interviewer: How does such environmental programing, however enlightened in intent, differ from Pavlovian brainwashing?

McLuhan: Your question reflects the usual panic of people confronted with unexplored technologies. I'm not saying such panic isn't justified, or that such environmental programing couldn't be brainwashing, or far worse—merely that such reactions are useless and distracting. Though I think the programing of societies could actually be conducted quite constructively and humanistically, I don't want to be in the position of a Hiroshima physicist extolling the potential of nuclear energy in the first days of August 1945. But an understanding of media's effects constitutes a civil defense against media fallout.

The alarm of so many people, however, at the prospect of corporate programing's creation of a complete service environment on this planet is rather like fearing that a municipal lighting system will deprive the individual of the right to adjust each light to his own favorite level of intensity. Computer technology can—and doubtless will—program entire environments to fulfill the social needs and sensory preferences of communities and nations. The content of that programing, however, depends on the nature of future societies—but that is in our own hands.

Interviewer: Is it really in our hands—or, by seeming to advocate the use of computers to manipulate the future of entire cultures, aren't you actually encouraging man to abdicate control over his destiny?

McLuhan: First of all—and I'm sorry to have to repeat this disclaimer—I'm not advocating anything; I'm merely probing and predicting trends. Even if I opposed them or thought them disastrous, I couldn't stop them, so why waste my time lamenting? As Carlyle said of author Margaret Fuller after she remarked, "I accept the Universe": "She'd better." I see no possibility of a worldwide Luddite rebellion that will smash all machinery to bits, so we might as well sit back and see what is happening and what will happen to us in a cybernetic world. Resenting a new technology will not halt its progress.

The point to remember here is that whenever we use or perceive any technological extension of ourselves, we necessarily embrace it. Whenever we watch a TV screen or read a book, we are absorbing these extensions of ourselves into our individual system and experiencing an automatic "closure" or displacement of perception; we can't escape this perpetual embrace of our daily technology unless we escape the technology itself and flee to a hermit's cave. By consistently embracing all these technologies, we inevitably relate ourselves to them as servomechanisms. Thus, in order to make use of them at all, we must serve them as we do gods. The Eskimo is a servomechanism of

his kayak, the cowboy of his horse, the businessman of his clock, the cyberneticist—and soon the entire world—of his computer. In other words, to the spoils belongs the victor. This continuous modification of man by his own technology stimulates him to find continuous means of modifying it; man thus becomes the sex organs of the machine world just as the bee is of the plant world, permitting it to reproduce and constantly evolve to higher forms. The machine world reciprocates man's devotion by rewarding him with goods and services and bounty. Man's relationship with his machinery is thus inherently symbiotic. This has always been the case; it's only in the electric age that man has an opportunity to recognize this marriage to his own technology. Electric technology is a qualitative extension of this age-old man-machine relationship; 20th Century man's relationship to the computer is not by nature very different from prehistoric man's relationship to his boat or to his wheel—with the important difference that all previous technologies or extensions of man were partial and fragmentary, whereas the electric is total and inclusive. Now man is beginning to wear his brain outside his skull and his nerves outside his skin; new technology breeds new man. A recent cartoon portrayed a little boy telling his nonplused mother: "I'm going to be a computer when I grow up." Humor is often prophecy.

Interviewer: If man can't prevent this transformation of himself by technology—or into technology—how can be control and direct the process of change?

McLuhan: The first and most vital step of all, as I said at the outset, is simply to understand media and its revolutionary effects on all psychic and social values and institutions. Understanding is half the battle. The central purpose of all my work is to convey this message, that by understanding media as they extend man, we gain a measure of control over them. And this is a vital task, because the immediate interface between audile-tactile and visual perception is taking place everywhere around us. No civilian can escape this environmental blitzkrieg, for there is, quite literally, no place to hide. But if we diagnose what is happening to us, we can reduce the ferocity of the winds of change and bring the best elements of the old visual culture, during this transitional period, into peaceful coexistence with the new retribalized society.

If we persist, however, in our conventional rearview-mirror approach to these cataclysmic developments, all of Western culture will be destroyed and swept into the dustbin of history. If literate Western man were really interested in preserving the most creative aspects of his civilization, he would not cower in his ivory tower bemoaning change but would plunge himself into the vortex of electric technology and, by understanding it, dictate his new environment—turn ivory tower into control tower. But I can understand his hostile attitude, because I once shared his visual bias.

Interviewer: What changed your mind?

McLuhan: Experience. For many years, until I wrote my first book, The Mechanical Bride, I adopted an extremely moralistic approach to all environmental technology. I loathed machinery, I abominated cities, I equated the Industrial Revolution with original sin and mass media with the Fall. In short, I rejected almost every element of modern life in favor of a Rousseauvian utopianism. But gradually I perceived how sterile and useless this attitude was, and I began to realize that the greatest artists of the 20th Century—Yeats, Pound. Joyce, Eliot—had discovered a totally different approach, based on the identity of the processes of cognition and creation. I realized that artistic creation is the playback of ordinary experience—from trash to treasures. I ceased being a moralist and became a student.

As someone committed to literature and the traditions of literacy, I began to study the new environment that imperiled literary values, and I soon realized that they could not be dismissed by moral outrage or pious indignation. Study showed that a totally new approach was required, both to save what deserved saving in our Western heritage and to help man adopt a new survival strategy. I adapted some of this new approach in The Mechanical Bride by attempting to immerse myself in the advertising media in order to apprehend its impact on man, but even there some of my old literate "point of view" bias crept in. The book, in any case, appeared just as television was making all its major points irrelevant.

I soon realized that recognizing the symptoms of change was not enough; one must understand the cause of change, for without comprehending causes, the social any psychic effects of new technology cannot be counteracted or modified. But I recognized also that one individual cannot accomplish these self-protective modifications; they must be the collective effort of society, because they affect all of society; the individual is helpless against the pervasiveness of environmental change: the new garbage—or mess-age—induced by new technologies. Only the social organism, united and recognizing the challenge, can move to meet it.

Unfortunately, no society in history has ever known enough about the forces that shape and transform it to take action to control and direct new technologies as they extend and transform man. But today, change proceeds so instantaneously through the new media that it may be possible to institute a global education program that will enable us to seize the reins of our destiny—but to do this we must first recognize the kind of therapy that's needed for the effects of the new media. In such an effort, indignation against those who perceive the nature of those effects is no substitute for awareness and insight.

Interviewer: Are you referring to the critical attacks to which you've been subjected for some of your theories and predictions?

McLuhan: I am. But I don't want to sound uncharitable about my critics. Indeed, I appreciate their attention. After all, a man's detractors work for him tirelessly and for free. It's as good as being banned in Boston. But as I've said, I can understand their hostile attitude toward environmental change, having once shared it. Theirs is the customary human reaction when confronted with innovation: to flounder about attempting to adapt old responses to new situations or to simply condemn or ignore the harbingers of change—a practice refined by the Chinese emperors, who used to execute messengers bringing bad news. The new technological environments generate the most pain among those least prepared to alter their old value structures. The literati find the new electronic environment far more threatening than do those less committed to literacy as a way of life. When an individual or social group feels that its whole identity is jeopardized by social or psychic change, its natural reaction is to lash out in defensive fury. But for all their lamentations, the revolution has already taken place.

Interviewer: You've explained why you avoid approving or disapproving of this revolution in your work, but you must have a private opinion. What is it?

McLuhan: I don't like to tell people what I think is good or bad about the social and psychic changes caused by new media, but if you insist on pinning me down about my own subjective reactions as I observe the reprimitivization of our culture, I would have to say that I view such upheavals with total personal dislike and dissatisfaction. I do see the prospect of a rich and creative retribalized society—free of the fragmentation and alienation of the mechanical age—emerging from this traumatic period of culture clash; but I have nothing but distaste for the process of change. As a man molded within the literate Western tradition, I do not personally cheer the dissolution of that tradition through the electric involvement of all the senses: I don't enjoy the destruction of

neighborhoods by high-rises or revel in the pain of identity quest. No one could be less enthusiastic about these radical changes than myself. I am not, by temperament or conviction, a revolutionary; I would prefer a stable, changeless environment of modest services and human scale. TV and all the electric media are unraveling the entire fabric of our society, and as a man who is forced by circumstances to live within that society, I do not take delight in its disintegration.

You see, I am not a crusader; I imagine I would be most happy living in a secure preliterate environment; I would never attempt to change my world, for better or worse. Thus I derive no joy from observing the traumatic effects of media on man, although I do obtain satisfaction from grasping their modes of operation. Such comprehension is inherently cool, since it is simultaneously involvement and detachment. This posture is essential in studying media. One must begin by becoming extraenvironmental, putting oneself beyond the battle in order to study and understand the configuration of forces. It's vital to adopt a posture of arrogant superiority; instead of scurrying into a corner and wailing about what media are doing to us, one should charge straight ahead and kick them in the electrodes. They respond beautifully to such resolute treatment and soon become servants rather than masters. But without this detached involvement, I could never objectively observe media; it would be like an octopus grappling with the Empire State Building. So I employ the greatest boon of literate culture: the power of man to act without reaction—the sort of specialization by dissociation that has been the driving motive force behind Western civilization.

The Western world is being revolutionized by the electric media as rapidly as the East is being Westernized, and although the society that eventually emerges may be superior to our own, the process of change is agonizing. I must move through this pain-wracked transitional era as a scientist would move through a world of disease; once a surgeon becomes personally involved and disturbed about the condition of his patient, he loses the power to help that patient. Clinical detachment is not some kind of haughty pose I affect—nor does it reflect any lack of compassion on my part; it's simply a survival strategy. The world we are living in is not one I would have created on my own drawing board, but it's the one in which I must live, and in which the students I teach must live. If nothing else, I owe it to them to avoid the luxury of moral indignation or the troglodytic security of the ivory tower and to get down into the junk yard of environmental change and steam-shovel my way through to a comprehension of its contents and its lines of force—in order to understand how and why it is metamorphosing man.

Interviewer: Despite your personal distaste for the upheavals induced by the new electric technology, you seem to feel that if we understand and influence its effects on us, a less alienated and fragmented society may emerge from it. Is it thus accurate to say that you are essentially optimistic about the future?

McLuhan: There are grounds for both optimism and pessimism. The extensions of man's consciousness induced by the electric media could conceivably usher in the millennium, but it also holds the potential for realizing the Anti-Christ—Yeats' rough beast, its hour come round at last, slouching toward Bethlehem to be born. Cataclysmic environmental changes such as these are, in and of themselves, morally neutral; it is how we perceive them and react to them that will determine their ultimate psychic and social consequences. If we refuse to see them at all, we will become their servants. It's inevitable that the world-pool of electronic information movement will toss us all about like corks on a stormy sea, but if we keep our cool during the descent into the maelstrom, studying the process as it happens to us and what we can do about it, we can come through.

Personally, I have a great faith in the resiliency and adaptability of man, and I tend to look to our tomorrows with a surge of excitement and hope. I feel that we're standing on the threshold of a liberating and exhilarating world in which the human tribe can become truly one family and man's consciousness can be freed from the shackles of mechanical culture and enabled to roam the cosmos. I have a deep and abiding belief in man's potential to grow and learn, to plumb the depths of his own being and to learn the secret songs that orchestrate the universe. We live in a transitional era of profound pain and tragic identity quest, but the agony of our age is the labor pain of rebirth.

I expect to see the coming decades transform the planet into an art form; the new man, linked in a cosmic harmony that transcends time and space, will sensuously caress and mold and pattern every facet of the terrestrial artifact as if it were a work of art, and man himself will become an organic art form. There is a long road ahead, and the stars are only way stations, but we have begun the journey. To be born in this age is a precious gift, and I regret the prospect of my own death only because I will leave so many pages of man's destiny—if you will excuse the Gutenbergian image—tantalizingly unread. But perhaps, as I've tried to demonstrate in my examination of the postliterate culture, the story begins only when the book closes.