This essay examines the human dimension of the mass media culture, and how it will be that individual state of evolution and survival, and the human evolution that prevent the crisis from occurring.

When we ask why this crisis is of our world, the general question of human evolution is: It is a cultural arm of our society. The operations both media, and the historical are the tools of the social body. This may be described as a business industry, a mass communication. History expresses an imminent mass history, and human history. The outstanding resolution is that, the mass industry has led us into a contemporary alley from which we cannot escape.

I propose to show that the crisis is caused by total reconstruction of our society. Not by complete reconstruction, but by total reconstruction of our society. I propose to show that although people are not that an inverse solution to the problem, it won't be used for the reconstruction of the world. And the purpose of their crime is for maintaining the individual and the operations both personal and social.

I intend to demonstrate this premise by means of a unique frame of reference.
This essay is about reality, the mass media, and human desire. In it I shall explore the effect of the mass media on individual identity, social history, and human evolution. My basic assumption will be that industrial civilization exists today in a state of evolutionary crisis which threatens our very survival, and that analysis of the mass media's role in human evolution can reveal what we must do to prevent the crisis from becoming a catastrophe.

When we ask what is the effect of the mass media on human evolution, we actually are asking an even more general question, namely, what has been the most important social consequence of the Industrial Revolution? This is because the mass media are the cultural arm of the industrial order that makes their operations both possible and necessary. The mass media are the technoeconomic foundations of what may be described as the culture industry or consciousness industry, a phenomenon which I regard as the ultimate expression of the industrial equation and as an imminent menace to individual identity, social history, and human evolution. I propose to show that the outstanding consequence of the Industrial Revolution is that, through the rise of the mass media, it has led us into an historical and evolutionary blind alley from which we may be unable to escape.

I propose to show not only that such a crisis exists but that it is caused by the mass media, and that only by totally reconstructing the mass media—that is, only by completely inverting their structural and functional organization—can we prevent the crisis from becoming catastrophic. I further propose to show that although the tool systems necessary for such an inversion now exist, they almost certainly won't be used for that purpose. This is because reconstruction of the mass media will require the participation of the media themselves, yet the primary purpose of their existence is to maintain themselves by maintaining the industrial order which makes their operations both possible and necessary in the first place.

I intend to demonstrate the validity of this basic premise by means of six propositions, each of which generates a separate discourse that embodies its own unique frame of reference.

The first proposition is that human evolution is cultural, not genetic. By this I mean that the biological evolution of the species is subordinated to cultural history insofar as culture orients behavior and behavior orients the pressure of natural selection. It follows that the significant environment in which we live and with which we interact for our survival as a genetic population is not the physical environment, or biosphere, but the symbolic environment, the culture, or what I shall call the videosphere.

The second proposition is that in any industrial society culture is generated and sustained by the four mass media—television, radio, newspapers, cinema. The mass media are therefore the arbiters of human evolution since they orient the culture that orients behavior that orients the pressure of natural selection. However, the intrinsic organization of the centralized mass media generates a fundamental corruption of culture through a process which I shall characterize as nonadaptive perceptual imperialism.

The third proposition is that we are experiencing what I will call a global ecosocial crisis. By this I mean all social problems understood as communication problems and as evidence of a condition of uncontrolled or runaway evolution—an evolutionary process generated by industrial society but not controlled by industrial society, and which therefore threatens the very survival of industrial society. The ecosocial crisis is worldwide, yet it can be treated as symptomatic of the structural organization of a single industrial nation like the United States.

The fourth proposition is that the ecosocial crisis of runaway evolution is caused by the mass media as arbiters of that evolutionary process, and can be resolved only through total inversion of the structural and functional organization of the mass media. By this I mean that the principle of mass audience communication itself as currently practiced in all industrial nations, regardless of content and regardless of the technoeconomic apparatus through which it's implemented, is the most destructive force in the world today, and must be abolished at any cost through an historically unprecedented communications revolution.
I submit that what causes the helpless feeling is the inadequacy of old forms of thought to cope with an historically unprecedented situation. We can't even think about finding solutions without correctly recognizing the problem, and it's now commonplace to pose our problems incorrectly. My purpose in this essay is to articulate the problem of individual liberty and social survival in such a way as to provoke politically effective questions—for the ecosocial crisis has reached its present magnitude primarily because the correct leading questions aren't being asked in public forum, in legislative bodies, in the educational programs of the schools.

We look through a window, the window of the mass media, especially television, and we see all these problems. Problems so tediously redundant that it would be embarrassing to examine them here. Let me just characterize them—simply, it may seem at first—as problems which exist because of our inability to describe, hence to desire, a world without them. The point I wish to make, however, has to do not so much with those problems as with the frame through which they're observed. For we tend to dissociate the problems from the frame. We tend to focus on what's seen rather than on our way of seeing. I will argue in this essay that our problems aren't what's seen through the window, they are the window itself; not what's seen but our way of seeing. I will argue that instead of focusing on how we produce and consume we must focus on how we conceive and perceive and on how we communicate.

This brings us to the sixth proposition. It is that the supreme political challenge confronting industrial societies today is the challenge of precipitating the potential communications revolution—making it happen. In other words, the existence of the ecosocial crisis and of the new video tools makes both possible and essential the emergence of a new kind of politics which I'll call cultural politics. By this I mean a political movement that can subsume the aims and goals of all existing political movements within a single all-encompassing objective: total inversion of the structure and function of the centralized mass media.

In the pages that follow, and in the book from which this essay is derived, my ultimate purpose is to articulate the philosophical and theoretical foundations for the new cultural politics and to encourage and support the rise of a new industrial society that I may call cultural, and to cultivate the philosophical and theoretical foundations for the mainstreaming of the mass media's role in the great issue of our time. We've reached the point where unravelling the very structure of the mass media is no academic exercise but the most politically imperative of tasks. To do it, however, we must abandon the traditional, academically oriented, and yet politically conventional approach to the mass media.

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Let us first consider the mass media, the new video tools of this age, and the way these tools and the functional characteristics of their structure and distribution of their output are being used to subvert us, to subsume, invert, and destroy the foundations of our society, to preclude our ability to communicate. The functional characteristics of the mass media today are as follows:

1) Cable communication networks, such as the cable television industry or the telephone system;
2) Portable video recording equipment;
3) Movie publishing systems such as video disc and video cassette devices;
4) Home computers and information utilities;
5) Domestic communication satellites; and
6) New information display devices for the home, such as large-screen TV displays and facsimile printout terminals.

Before discussing the sixth proposition I want to acknowledge that ideas such as these may well be regarded as utopian futurology, for the history of America is the history of futurology, and one almost never encounters a subject such as this in terms other than futuristic. But this isn't that kind of text, and anyone who regards it as such will have missed the point entirely. The spirit in which it was written and in which it will be most profitably read is a revolutionary spirit. I'm not predicting what will happen tomorrow. I'm specifying what must be made to happen today. My purpose is to sound an alert and to push for a mobilization. We must focus on alternative presents rather than alternative futures, for we invent the future by our actions today and we'll bury ourselves in the future if present actions continue.

I write these words against a background of seemingly unovercomable crisis. It's the age of the apocalypse, for no one any longer can say whether humanity can survive. The world's leading scientists in the relevant fields seem agreed about this: we've created for ourselves a set of political and military crises, a set of technological and environmental crises, a set of socio-cultural systems, which may prove impossible to contain. We've known what the Greeks did not: uncertainty. In the last two decades uncertainty has become endemic, for there's universal doubt whether the whole apparatus of industrial civilization actually works any longer. Repeatedly we attack dysfunctions in our social organization while the symptoms continue to worsen. The institutions we've built to secure our liberty and survival have grown into an industrial colossus which seems not so much protective as actually threatening. We're captives of gigantic systems beyond our control, systems which seem to produce exactly the reverse of desired results, actually contributing to the problems they're designed to correct. No longer do we lie down at night with a sense of security and get up in the morning confident that the great machinery of organized society is ready to carry us on. The spectacle is appalling. A maddening paranoia insinuates itself everywhere and we're convinced there's no remedy available, even to those who'd use it.
the rise of a new breed of political activist whom we may call cultural workers. Our task as cultural workers is to cultivate a climate of opinion calling for recon-
struction of the mass media. To establish this issue in the mainstream of public debate as the supreme political issue of our time would be to pull a thread that could unravel the very fabric of industrial civilization. This is no academic expectation, no futurist's dream, but a political imperative if we're to make the world work. To do it, however, we must be capable of inspiring confidence in our peers and of effectively expressing politically correct demands for creation of the new social order. It is toward this end, and in this revolution spirit, that I offer the following considerations.

The Communications Revolution

Let us first consider the proposition that the new video tools are capable of precipitating an historically unprecedented revolution in the structure and function of the mass media. This potential becomes clear if we consider them not as independent entities but as components of a single, integrated, nationwide telecommunication system which would subsume, invert, supplement, and in some instances replace the functions now performed by the present mass media. I shall refer to this hypothetical system henceforth as the National Information Utility.

In applying the notion of a communications revolution to this set of tools I mean to suggest that it's theoretically possible to integrate and organize them in such a manner that the new structure would amount to inversion of the "industrial organizing principle" that is the source of the structural and functional identity of our society in general and of its mass communication subsystems in particular. Simply defined, the industrial organizing principle is the principle of centralized mass production and mass distribution. It is manifest in, and implemented through, the structure and function of any technological system which serves that purpose, and that includes almost all tools and institutions in an industrial society.

The mass communication subsystems of society are, like all other social subsystems, a special case of the industrial organizing principle: implemented through their structure and function it becomes the principle of centralized, one-way, mass-audience, nonadaptive distribution of messages. Accordingly, the chief functional characteristic of the mass media is that of processing centralized output — the centralized mass production and one-way mass distribution of symbolic messages to a captive mass audience.

If we define "revolution" as a radical inversion of the identity of a system we must conclude that there never has been a revolution in the structure and function of mass communication systems. Although many developments in the history of the mass media have been characterized as revolutionary, the differences have, in fact, been of degree rather than kind. There have been changes in the way messages are encoded for mass distribution (print, movies, radio, television) and there have been changes in the numbers of persons simultaneously addressed by these messages (always larger captive audiences); but throughout all these "revolutions" there's been no change in the industrial organizing principle of centralized, one-way, mass audience, nonadaptive distribution of messages, which has been the nature of all mass communication systems since the invention of moveable type.

Only today, and only through electronic information processing and telecommunications systems, is a truly radical revolution possible for the first time. This is because the communications revolution is only one possible outcome of an even more general and profound revolution in the science of electronics — a revolution that has been gaining momentum for more than 25 years. It has become increasingly apparent that the Electronics Revolution could be as far-reaching in its impact on our lives as the Industrial Revolution was in its effect on the society of the 19th century. It may well have greater impact on human history and thought than did the Renaissance. Indeed, it could have more profound influence upon evoking humanity than any other event in history, including the invention of the wheel, the harnessing of electricity or the introduction of print and telephony. Its ultimate effect could be — must be, I'll argue — to move us out of the Industrial Age into the Cybernetic Age, radically transforming the identity of modern civilizations.

Needless to say, such a revolution would be far more profound than a mere shift in ownership or power; it would mean not only a retooling but a radical inversion of the values served by tools. And of all tools employed by men and women, those which facilitate communication are by far the most important.

Inventions and refinements in communications technology reverberate across all the arts and sciences in which men and women are engaged. They constitute the major force which determines how human beings think and learn to think. The underlying structure of the public communication system determines the total political and cultural reality of the society it organizes, and any significant change in that structure portends profound social consequences.

The changes that have occurred in mass communication systems up to now have been changes of degree rather than kind; but the revolution that could theoretically be realized through proper integration and organization of the new video tools would represent a difference of both degree and kind, for it would implement a principle of organization exactly inverse of that which is today the source of the mass media's structural and functional identity. We may characterize this inverse principle as the cybernetic organizing principle.
Implementing this inverse principle of organization would mean replacing the processing of centralized output with the processing of decentralized input as the chief functional characteristic of the mass media, that is, the primary purpose of their existence. This in turn would make possible public access to information specified by the user and public access to communications channels controlled by the user. The important words here are “specified by the user” and “controlled by the user.” These criteria make the premise significantly different from traditional notions about “public access” which don’t assume structural inversion of the institution being assessed. According to our definition, however, these criteria will have to be satisfied for any changes in the structure and function of the mass media to qualify as revolutionary; and that’s why it’s possible to say that a communications revolution is a cultural revolution or it’s no revolution at all.

The National Information Utility

Paradoxically, the best example of a decentralized user-controlled feedback communication system happens to be the very heart of the industrial society: the switched telephone network. The telephone system is inherently input-oriented, that is, it’s organized exclusively to process decentralized input rather than centralized output. What’s so decentralized about it is the decision-power of the user. It’s impossible for bureaucrats to define when or how we use the telephone. Although it is computer controlled, we decide when, where, how and for what purpose this multi-billion-dollar industrial colossus will be used, and its computers process our input on demand.

The telephone system is the most completely decentralized and fully user controlled public communication system ever invented, the only one in the world that allows the user to control the time, place and content of message production and distribution. However, three fundamental characteristics of the phone system render it unacceptable as the technological foundation for a National Information Utility. First, the telephone network is inherently a single-address rather than a multiple-address communication system (you can speak to only one person at a time) and therefore it’s useless as a political tool because it can’t be used to address the polis. Second, it’s incapable of processing audiovisual images (“gestalten” and gestures of other persons), being designed exclusively for conceptual rather than existential dialogue; it is therefore inadequate as a tool for the cultivation and manipulation of alternative models of possible realities. Third, for most people (except institutional users of time-shared computer utilities) the telephone system has only throughput, no storage-and-retrieval capabilities; it has no “memory” and is therefore useless as a tool for inductive inference – we can’t use it to learn from the collective past and to plan for the collective future.

However, if the basic principle of the switched network is modified to include both single- and multiple-address communications, audiovisual transmissions and publicly accessible data stores, we would have the radical inversion of the existing mass media embodied in what I’m calling a National Information Utility. Such a system could integrate, synthesize, and transcend all the characteristics of both the switched telephone network and the mass distribution media. It could incorporate the program-distribution, news publishing, library, telephone and postal services of the nation together with teaching, automatic process control operations, and professional and social services such as medical and legal aid, all in a single decentralized, user-controlled, special-audience, perceptually adaptive, feedback communication system.

What would life be like with a National Information Utility? We can’t really say for sure, just as we had no idea of what life would be like with print, radio, or television before those media were introduced. But we know the answer must be on two levels: operational, in terms of the operation of the overall system itself, and in terms of our interactions with it through our home communications terminal; and conceptual or attitudinal, in terms of the purposes (cultural, political, economic) which the total system is constructed to serve, as well as the motivations, expectations, and satisfactions we might bring to, and get from, our interactions with it.

Whereas the existing mass media constitute an advertising and marketing industry in which the mass audience is the product that’s sold to the advertiser, the National Information Utility could be operated as a service industry providing public access to information specified by the user and public access to communications channels controlled by the user. I submit that this National Information Utility – a common-carrier system, perhaps the most important potential for individual information retrieval services, is by force of law being provided at standard rates, with a legal separation from the content.

The National Information Utility would amount to a system in which the user has access to information, information products and professional and social services she requires at times and in amounts she specifies. Such a system is possible only through a new industry with the existing one already is under way. Such a system is made available to us because the switched telephone system has only throughput, no storage-and-retrieval capabilities; it has no “memory” and is thereby inadequate as a tool for the individual to learn from the collective past and to plan for the collective future.

Rather, it had better be a functional inverse to the existing system, possible without it.

Since the new structure for a carrier public utility is a transmission channel that is fundamentally different from the existing one, it would require that the content of the new channel be specifically addressed. Traditionally, government content has been organized and maybe even a legal requirement for the public electricity and telephone companies to deliver, but public information, such as the product information required for professional news and product production, has addressed the channel in a business-like way with limited success.

It’s almost certain that the telephone system, regardless of the media (video, print) or its function, research, data distribution, will be used to deliver the result of entrepreneurial efforts using the system for production and selectivity aims for which we are meant.
submit that this will not be possible unless the National Information Utility is operated as just that—a common-carrier public utility supported by public funds; a legal monopoly whose services, deemed essential for individual liberty and social survival, would by force of law be made available to everyone at standard rates, with ownership of the physical plant separated by law from the power to program it.

The National Information Utility, in other words, would amount to a "demand information system" in which the user requests, receives, and pays for information, information processing, and access to programs and to communications channels that he or she requires at times, places and speeds that he or she specifies. Such a demand information system is possible only through the merging of the computation industry with the telecommunications industry, which already is under way, the resulting new services being made available to the public by a simultaneous switch-over from a broadcast to a cabled video distribution system, which also is under way—although it's as yet uncertain whether the Wired Nation will carry an "Able Cable" logo or a big blue Bell. The important point is that, in an ironic reversal of what we've come to think of as technological progress, the historical development of public communications will owe more to Morse than to Marconi—for the distribution of information in America is about to come full circle from wire to wireless and now back to wire again.

Rather, it had better be by wire, for structural and functional inversion of the mass media won't be possible without it.

Since the new structure will be operated as a common-carrier public utility or not at all, the hundreds of transmission channels made possible by optical fibers and domestic satellites would necessarily all be operated as public access channels, rendering that concept meaningless since there would be no channel that wasn't publicly accessible. The very multiplicity would require that each channel be dedicated to a specific subject or class of subjects, supported financially by a combination of federal subsidy (without government content control), public subscription, and maybe even a little advertising (assuming it could compete with the computerized "consumer report" product information channels). Everyone, from autonomous individuals to primary groups to professional news and film producers would be able to produce programming for these channels so long as they addressed the subject to which a particular channel was dedicated.

It's almost certain that we would interact with the system through a single multimedia home terminal regardless of the medium of the interaction (audio, video, print) or its purposes (entertainment, education, research, data retrieval, voting, videophone). This terminal would be our input-output device for a virtually unlimited variety of communications channels and services, some required by law, others the result of entrepreneurial initiative. As a result, using the system would require more active participation and selectivity than do the present mass media, for which we are merely passive consumers of industrial output. Interacting with the new structure would be more like using the telephone or a library or going to a record store or bookshop. In other words, whereas today we ask "What's on TV?" with the new structure we'd ask, "What shall I put on my TV screen?" And our "smart terminal" would assist us in our search for the data, services, or programs we wanted—which would consist of a far greater variety, far more easily obtained, than is imaginable today.

So much for glamor hardware. What's important about this familiar scenario is that it's no longer science fiction. The technology is available now, like a self-fulfilling prophecy, and it makes feasible certain demands of industry and government which simply could not have been realistically asserted before the present moment. Meanwhile it's important to consider the purposes, motivations and attitudes behind our scenario—for it's certain that the circumstances I've described never will be realized without a significant change in media consciousness. And we can best understand the motivations implied by the new structure by first articulating the purposes of the present one.

The ultimate purpose of the mass media is to secure the maintenance of the industrial order that makes their operations both possible and necessary in the first place. They do this by celebrating conventional morality, validating the common consciousness, and reinforcing through redundancy the conceptual foundations of the culture. Their focus is "the truth as it is." On the other hand, the National Information Utility could focus on "the truth as it could be." Its purpose would not be to reinforce what is, but to cultivate the possible. The plurality of purpose and decentralization of control inherent in its very structure would mean that the National Information Utility could only provide the raw materials with which autonomous individuals and primary groups would construct their own information environments and synthesize their own realities.

As a result, our approach to the National Information Utility as users would have to be motivated by need rather than enforced habit—the need to hold before ourselves, continuously and pervasively, models of the kind of world in which we prefer to live, both
material and cultural, the better to achieve such a world in reality. Indeed, it may be that only through the possibility of interacting with such a system can we ever come to realize what kind of world we do in fact prefer. And there lies the essence of the modern dilemma, for it seems that attitudes and values can change only after we free ourselves from nonadaptive perceptual imperialism and start creating and inhabiting another history. In other words, only in a society in which the mass media have already been functionally inverted will it be possible to invent and institutionalize forms of life that would be both personally liberating and compatible with the demands of the biosphere. This dilemma (Greek for “two premises”) characterizes the historical and evolutionary impasse at which we stand, and the remainder of this essay is dedicated to elucidating the technoeconomic mechanisms which have resulted in it.

The Mass Media As Reality Synthesizers

I have characterized the mass media as the foundations of the culture and/or consciousness industry and I have observed that their function is to generate cultural conditions compatible with the purposes of the industrial order that makes those conditions both possible and necessary in the first place. To do this it isn’t necessary that the mass media cultivate popular desire for the industrial way of life. It is necessary only that they prevent popular desire for any other way of life. The media don’t have to endorse “the system” in any overt way or say anything particularly nice about it at all. Conversely, we don’t have to like or believe anything the media may say — so long as we don’t have access continuously and pervasively to models which describe in detail a completely different kind of life. The only thing that’s not permitted is the possibility of negating this social system by describing another one so completely that we could vividly imagine what life would be like in it, hence to desire it and then, perhaps, to demand it. The industrial order endures not by conspiracy but simply by default, simply because there’s no popular demand for a specifically-defined alternative. And there’s no possibility of such a demand because the mass media, due to their intrinsic organization, must necessarily deprive us of continuous and pervasive access to alternative models of possible realities.

Sociological investigations are conducted periodically to determine whether the media, especially television, have appreciable impact on human behavior. The question has always seemed absurd to me, for that, after all, is their purpose. When we say “media” what we really mean is “culture.” And that culture is the single most important factor in the orientation of human behavior — especially that primary behavior called consciousness — is beyond dispute. Any anthropologist will agree that reality is a function of the culture in which one lives; this is true on the physiological level as well as the psychological plane. And in any advanced industrial nation, in any politically relevant sense, the mass media are the culture. That is, the product of their functioning is the common cultural reality.

It is important to realize that the character of this common reality is determined neither by the sender nor by the receiver of messages. It’s predetermined by the industrial organizing principle itself, which requires that the messages of the media be read by millions of persons and, accordingly, that they be of a class which millions of persons will be able to read, that is, to which they most easily can relate as being possible realities. The messages of the mass media reflect the lowest cultural common-denominator of ideas compatible with the purposes of the industrial system which makes those messages both possible and necessary in the first place.

A culture is defined by the possible frames of reference which specify the classes of choices that are available for thought and action within it. The frame of reference defined by the lowest cultural common-denominator becomes “reality” for most people most of the time. It defines its own synthetic world of descriptions, and what is not described does not exist in any politically relevant sense. That’s because these descriptions become the content of the four categories of consciousness which together constitute our entire cognitive reality, that is, the total significance any experience can have for an observer. These are the categories of existence, priorities, values, and relations. By this I mean that the centralized mass culture specifies for most people most of the time, in any politically relevant sense, what’s real and what’s not (existence), what’s important and what’s not (priorities), what’s good and bad, right and wrong (values), and what’s related to what else and how (relations). In this way the mass media synthesize the reality — the centralized mass culture — in which and to which our collective behavior is the only possible response.

There’s an important lesson to be learned from the success of video evangelists like Billy Graham, Oral Roberts, Kathryn Kuhlman — that television is an evangelical medium whose gospel is the culture and whose crusade is human evolution. The culture is a carrot on a string. Natural selection is the decision to follow. Evolution is what happens when we do. As music is what awakens in us when we are reminded by the instruments, so thought is what awakens in us when we’re reminded by the videosphere. We move through the incorporeal geography of the videosphere taking cultural dictation like Cocteau’s Orpheus monitoring an immortal frequency on his car radio. The messages we receive orient our behavior and our behavior, reorganizing the environment down to the subatomic level, orients the vectors of human evolution.

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Nonadaptive Perceptual Imperialism

The intrinsic organization of the mass media means that those meanings, values, models of behavior and descriptions of reality to which most people can most easily relate, and which are compatible with the maintenance of the industrial order that makes them both possible and necessary in the first place, will come to dominate the centralized mass culture and will therefore exclude, in any politically relevant sense, all other possible meanings, values and models of behavior that could have been published. The set of alternatives becomes drastically reduced, and with it the liberty of the imagination, for our imagination of the possible and the feasible is determined by the set of alternatives held before us.

Against the advice of my mentors and colleagues, I use the admittedly inflammatory label “nonadaptive perceptual imperialism” to characterize this ability of the mass media to attenuate desire by attenuating the set of possible descriptions that constitutes the common cultural reality. My use of the notion of imperialism is not meant to carry the conspiratorial connotations usually associated with it in political discourse. Rather, I mean that a nonadaptive perceptual imperialism is inherent in the very techno-economic structure of all mass media, regardless of content and regardless of the ideological environment in which they operate. It cannot be abolished by hiring new managers. It can be abolished only by eliminating the machinery that makes it necessary and therefore the demands for output that give it authority. I mean that the corruption of language and of information, and the inability of information to modify consciousness, is a function of the way the information system itself is organized. It’s the industrialization of the mind, for our imaginations are industrially constrained to conceive only what can be molded into an engineered system of social habits that fit the logic of large-scale production. To understand more fully how the mass media achieve these results it is necessary to understand something of Information Theory.

The basic premise of Information Theory is that information is whatever reduces uncertainty. This means that for there to be information there must first be uncertainty. A message is informative only if some uncertainty existed before receipt of the message and the measure of information is based on the amount of uncertainty that the message cleared up. If no uncertainty exists there can be no information. If the message is predictable with certainty, if the probability of that particular sequence of signals is one-hundred percent (we already know what it contains), then it provides no information. The need for communication arises because something unguessable must be imparted concerning our understanding or actions. The essential aspect of information is the unpredictable, the surprising, as opposed to the mere repetition of gesture, incantations, or prayers.

The act of communication, therefore, necessarily implies the existence of a set of alternatives. For there to be uncertainty there must first be an ensemble of alternatives from which to choose. Information is a measure of our freedom of choice when selecting a message, either as sender or receiver. As soon as the possibilities shrink to one, communication is blocked; the message is deprived of its capacity to convey information. We answer the phone because we’re uncertain as to the message the bell announces, and we’re uncertain because we know it’s only one of an infinite set of possible messages. If no such ensemble of alternatives existed, if we heard exactly the same thing every time we picked up the receiver, we’d no longer answer the phone; there’d be no information to gain because there’d be no uncertainty to reduce. Thus greater freedom of choice, greater uncertainty, and greater information are mutually interdependent concepts.

Now if information is whatever reduces uncertainty, and if uncertainty implies the existence of a set of alternative possibilities, it follows that the information conveyed by a particular message isn’t an intrinsic property of the message itself; rather, its content is a function of the set of alternative possibilities that the message comes from. Meaning is a contextual relation.

As an example, consider the case of two soldiers taken prisoner by two enemy countries, one by each; and their two wives each receive the brief message “I am well.” It is known, however, that country A allows the prisoner a choice from the set “I am well,” “I am slightly ill,” “I am seriously ill,” whereas country B allows only the message “I am well.” Two messages

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These dismal phantasms invariably are animated by the presence of a rebel whose human emotions and humanistic values somehow have survived the technocratic purge. He’s a hero because he’s an atavist, because he resembles us today: he loves, he feels, he champions beauty and poetry and justice. The story achieves routine suspense in the conflict between the Man of Today and the World of Tomorrow. The conclusion is predictable (that is, noninformative); either the atavist-hero short-circuits the computer, slays its pernicious programmers, and escapes with the Dictator’s beautiful daughter — or is himself either destroyed or “rehabilitated,” joining the society of the walking dead. This general theme, with whatever variations one cares to suggest, characterizes the vast majority of mass-audience expressions dealing with the future and technology because it’s the model to which most people most easily can relate as being “true” or “realistic.” Significantly, in those rare cases in which the atavist-hero is victorious over the forces of evil, the new world made possible by his victory never is depicted — or at least not with anything like the loving detail with which we depict the murderous and malignant future.

The Faustian Future of Perceptual Imperialism

Consider the history of movies about humanity’s relationship to technology and the future. All of these movies — from Fritz Lang’s Metropolis to Chaplin’s Modern Times to Godard’s Alphaville to Kubrick’s 2001 and A Clockwork Orange — promote the complex set of assumptions about human nature embodied in the expression “1984.” This apocalyptic symbol, conjuring up like a conditioned reflex the image of an entirely probable, nonadaptive, dehumanized world, has been established almost universally as a model to which most people most easily can relate. It even has reached the point where movies of this genre are judged according to how effectively they portray the kind of world we all know will exist in the future. We know nothing of the sort, of course but that we think we do is serious enough, and it’s exclusively a function of the nonadaptive perceptual imperialism inherent in a mass-audience distribution system that must necessarily reduce alternatives for thought and action.

The future world as portrayed in such films is characterized always by a stereotyped bleakness. The future never is better than the present, it always is worse. Implicit in them is the assumption that progress either is nonexistent or consists of an accelerating rush toward doomsday, thus reinforcing the assumption that we can’t or shouldn’t have control over our own history. In these Faustian futures the world is oppressively mechanized, maliciously computerized, ruthlessly and irrevocably totalitarian. The supreme despot is either man or machine or both. Men and women lead sexless dehumanized lives, physically preprogrammed, morally reflexed, functionally determined by awesome others. Love, pity, freedom and other humanistic values are viewed as “inefficient” and thus as crimes against a State often equated with Logic.

These media managers’ assertion that they “give the audience what it wants.” This is true. It is also one of the most insidious tautologies ever devised by self-deluding humans, because we can desire only what we’re given. Desire is learned. Desire is cultivated. It’s a habit formed through continuous repetition of a particular class of interactions. Desire is the most important of all industrial products, acquired by enforced habit through the absence of alternatives. So it’s not only that we can desire only what we’re given; what’s equally significant is that we cannot desire what we’re not given. We do, of course, make our own selections of materials with which we cultivate our personal meanings, values and preferences, and we seek to influence those available to, and chosen by, our children. But we cannot cultivate that which isn’t available. We don’t order a dish that isn’t on the menu. We don’t vote for a candidate who isn’t on the ballot. We can be neither for nor against an issue that hasn’t arisen. We rarely select what’s scarcely available, seldom emphasized, infrequently presented. We pay repeatedly available selection, quite in effect a vote for the menu, for the choices. Indeed this is the impersonal myth of the modern voter: a man or woman choosing his candidate from a menu of curriculum vitae, from a potential selection that is not, in effect, a portfolio of alternative qualities. It is a model of behavior entirely reducible to the structural mechanism that permit the mass media to attenuate desire by reducing it to a narrow spectrum the models of behavior and descriptions of possible realities that are held before us.

The Contingency of Desire

The popularity of such myths seems proof of the idea that we do in fact have control over the mass media which, of course, we do not. We do, however, have a mass-audience frame of reference — that is, by their set as such, not to anyparticularmessage assembled ofthesemovies-from Fritz Lang’s Metropolis to Godard’s Alphaville to Kubrick’s 2001 and A Clockwork Orange — promote the complex set of assumptions about human nature embodied in the expression “1984.” This apocalyptic symbol, conjuring up like a conditioned reflex the image of an entirely probable, nonadaptive, dehumanized world, has been established almost universally as a model to which most people most easily can relate. It even has reached the point where movies of this genre are judged according to how effectively they portray the kind of world we all know will exist in the future. We know nothing of the sort, of course but that we think we do is serious enough, and it’s exclusively a function of the nonadaptive perceptual imperialism inherent in a mass-audience distribution system that must necessarily reduce alternatives for thought and action.

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presented. We participate only in what's easily and repeatedly available. We select what's there for selection, quite in spite of the fact that we may hold no genuine desire for, or belief in, any of it. And indeed this appears to be the case. It's called alienation, the universal characteristic of life in modern industrial societies.

We know how to be depressed. We know how to fail. The videosphere is populous with models of human failure, but where are its maps of success and of joy? How are we to avoid a Faustian future when the perceptual-imperialist mass media continually deprive us of models for alternative thought and action? How are we to reach freedom when the mass media cultivate in us the illusion of participation while guaranteeing passive reception and perceptual imprisonment? To conceptually step outside of one's social system and observe it is an experience that may change one's ethic and transform one into a revolutionary, that is, into one whose ethic is different from that implied by one's social system and who negates that system by val-

dating a different one with his or her conduct. It's for this reason that totalitarian societies, through economic, religious, political and military coercion, deny their members the possibility of being observers of their own social system and, hence, of changing it towards a more desirable one. Totalitarianism is the negation of the human being as observer, that is, the negation of the individual as a social component who can step conceptually out of the system that he or she integrates and judge it ethically.

Thus, although perceptual imperialism implies no conspiracy as generally understood, it nevertheless amounts to a most insidious form of totalitarianism. Totalitarianism means radical invasion of the private domain by the public domain, and there's no domain more private than individual perception and conception. Yet this most personal of all domains is the very one most radically invaded by the public domain as embodied in the centralized mass media, with their awesome power to control collective thought and action quickly and pervasively. What could be a more radical example of totalitarianism than the power of the mass media to synthesize the only politically relevant reality, specifying for most people most of the time what's real and what's not, what's important and what's not, what's right and wrong, good and bad, and what's related to what and how? This, I submit, is the very essence of totalitarianism: the control of desire through the control of perception.

Today it's essential that we program innovation, schedule it on demand. But the problem is desiring to program it, which requires that we perceive the need and understand the possibility. We're in the critical dilemma of having necessities and capabilities that exceed our perception and hence our aspirations, our desires. This brings us back to Aristotle's notion of "final cause" and "efficient cause." In the Aristotelian sense the brain is the organ of final causes, the source of will and of purpose. If the final cause is the desire to have a lighted match the efficient cause is striking a match. If we can perceive of a desired future state (the match ignited) we know how to act in the present — strike.

The challenge of modern times is that of learning how to need another way of life. We must increase our necessity so that we can increase our perception so that we can mobilize our desire. But we can't cultivate (increase the necessity of) what's not available. We can't really desire that which we can't vividly imagine. So it isn't true that contemporary attitudes and values actually have changed. What's true is that we're searching desperately to change them. What prevents our frustration from shaping new institutions is the inability to perceive alternatives, resulting in the absence of desire, hence of demand, for those alternatives.

We know, for example, that the educational system is obsolete but the absence of alternative models prevents us from imagining either a de-schooled society or the nature of educational institutions in a society that had disestablished school. We know that our public communication systems are grossly inadequate but after generations of nonadaptive perceptual imperialism we can't conceive of a demand information system or how we'd use one if it did exist. Consequently there's no public demand for a National Information Utility. We may note the parallel to the case of the telephone when it was first demonstrated by Alexander Graham Bell at the Philadelphia Centennial Exposition in 1876: no one then saw any need for such a device. Indeed, Western Union found Bell's proposal to place his instrument in every home and business "fantastic," "ridiculous," and "utterly out of the question."

The Ecosocial Crisis and The Liberty Of The Imagination

As a result of nonadaptive perceptual imperialism we've managed to have the same pathological effect on our cultural history as we've had on our biological evolution, but with an important difference. For whereas the biological evolution of the human soma has become degenerative since we stopped adjusting our bodies to the environment and began adjusting the environment to our bodies, so the