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Communication as Culture

ESSAYS ON MEDIA AND SOCIETY

JAMES W. CAREY

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ROUTLEDGE

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CHAPTER 6

*Space, Time,
and Communications*

A TRIBUTE TO HAROLD INNIS

During the third quarter of this century, North American communications theory—or at least the most interesting part of it—could have been described by an arc running from Harold Innis to Marshall McLuhan. “It would be more impressive,” as Oscar Wilde said while staring up at Niagara Falls, “if it ran the other way.” Innis’s work, despite its mad-deningly obscure, opaque and elliptical character, is the great achievement in communications on this continent. In *The Bias of Communication*, *Empire and Communication*, *Changing Concepts of Time* and in the essays on books on the staples that dominated the Canadian economy, Innis demonstrated a natural depth, excess, and complexity, a sense of paradox and reversal that provides permanent riddles rather than easy formulas. His texts continue to yield because they combine, along with studied obscurity, a gift for pungent aphorism, unexpected juxtaposition, and sudden illumination. Opening his books is like reengaging an extended conversation: they are not merely things to read but things to think with.

But beyond these intellectual qualities Innis had an admirable and indispensable moral gift expressed throughout his life but perhaps most ardently in his opposition to the cold war and the absorption of Canada into it and in his defense of the university tradition against those who would use it as merely another expression of state or market power.

The very opaqueness and aphoristic quality of his writing, when combined with its critical moral stance, has left his

work open to be assimilated into and contrasted with newer developments in scholarship that have occurred since his death: developments in cultural geography, Marxism and critical theory, cultural anthropology and hermeneutics. But the significance I am after derives from Innis’s place in North American communication theory and, in particular, in relation to work in the United States.

I

Research and scholarship on communication began as a cumulative tradition in the United States in the late 1880s when five people came together in Ann Arbor, Michigan. Two were young faculty—John Dewey and George Herbert Mead—and two were students at the time—Robert Park and Charles Cooley. The final element of the pentad was an itinerant American journalist by the name of Franklin Ford, who shared with Dewey—indeed, cultivated in him—the belief that “a proper daily newspaper would be the only possible social science.”¹

Like most intellectuals of the period, this group was under the spell of Herbert Spencer’s organic conception of society, though not enthralled by social Darwinism. The relationship between communication and transportation that organicism suggested—the nerves and arteries of society—had been realized in the parallel growth of the telegraph and railroad: a thoroughly encephalated social nervous system with the control mechanism of communication divorced from the physical movement of people and things.

They saw in the developing technology of communications the capacity to transform, in Dewey’s terms, the great society created by industry into a great community: a unified nation with one culture; a great public of common understanding and knowledge. This belief in communication as the cohesive force in society was, of course, part of the progressive creed. Communications technology was the key to improving the quality of politics and culture, the means

for turning the United States into a continental village, a pulsating Greek democracy of discourse on a 3,000-mile scale. This was more than a bit of harmless romanticism; it was part of an unbroken tradition of thought on communications technology that continues to this day and that Leo Marx (1964) named and I appropriated as the "rhetoric of the technological sublime."

Three other features of the work of the Chicago School, as it was called, are worth noting. First, methodologically they were in a revolt against formalism, in Morton White's (1957) happy phrase: they attempted to return social studies to a branch of history and to emphasize the interdisciplinary nature of social knowledge. Second, they were under the spell of the frontier hypothesis, or at least a certain version of it. The significance they found in the frontier was not that of the heroic individual breaking his way into the wilderness; rather, they emphasized the process whereby strangers created the institutions of community life *de novo* in the small towns of the West. This process of community creation, of institution building was, they argued, the formative process in the growth of American democracy. Again, although there is more than a little romance with the pastoral in all this, it also led to a positive achievement. In the absence of an inherited tradition the active process of communication would have to serve as the source of social order and cohesion. Moreover, the Chicago School scholars conceived communication as something more than the imparting of information. Rather, they characterized communication as the entire process whereby a culture is brought into existence, maintained in time, and sedimented into institutions. Therefore, they saw communication in the envelope of art, architecture, custom and ritual, and, above all, politics. And this gave the third distinctive aspect to their thought: an intense concern with the nature of public life. As Alvin Gouldner (1977) has reemphasized, the idea of the public is a central notion in their thought, and although they agreed with Gabriel Tarde that the public is something brought into existence by the printing press, they went beyond him in trying to work through the conditions under which the public sphere gives rise to rational and

critical discourse and action. In the 1920s these concerns crested and yielded a continuous stream of literature on communications, a central feature of which was a concern with the "vanishing public" or the "eclipse of the public" (Dewey, 1927). Despite their youthful optimism, many of the Chicago School came to see that although the mass media brought the public into existence, they later threatened the possibility of public life and with it the possibility of rational discourse and enlightened public opinion.

Harold Innis studied at the University of Chicago when Park and Mead were on the faculty and this tradition was in full flower. Moreover, these same intense concerns with communication were ripe within the city at large: in Jane Addams's Hull House, in Frank Lloyd Wright's architecture offices, in the writings of Louis Sullivan, and, above all, in the textures of the University of Chicago. There was a continuity and connection between Innis and the Chicago School, though Marshall McLuhan's claim that Innis "should be considered as the most eminent member of the Chicago group headed by Robert Park" (1964, p. xvi) is an absurdity. Park had no direct influence on Innis, and Innis was too singular a thinker to be described as a member of any school. Innis's transcript at the University of Chicago reveals he took a very narrow range of courses strictly limited to traditional topics within political economy. His only outside work was one course in political science on municipal government offered by the greatest Chicago political scientist of the time, Charles Merriam.² My only claim is this: the significance of Innis is that he took the concerns of the Chicago School and, with the unvarnished eye of one peering across the 49th Parallel, corrected and completed these concerns, marvelously widened their range and precision, and created a conception and a historically grounded theory of communications that was purged of the inherited romanticism of the Chicago School and that led to a far more adequate view of the role of communications and communications technology in American life.

By the time Innis started to write about communications, Chicago sociology had pretty much run itself into the sand. During the 1930s it was transformed into symbolic

interactionism, a social psychology of the self and others drawn from the work of Mead. However elegant this work might be, it was also safely tucked away from the questions of politics, rationality, power, and social change that Chicago sociologists had earlier engaged.

American studies in communications then came under two influences. The first arose from work on psychological behaviorism initiated by John B. Watson immediately prior to World War I. Watson, both a professor at Columbia and a vice-president of J. Walter Thompson advertising agency, drew upon an accumulating body of work, principally from E. L. Thorndike, in animal psychology, and laid down a model of human action in which mind played no part in the arrangement of behavior. Transmitted into the study of communication, this provided the basis for a program of study in which communication became a branch of learning theory, in which learning was defined as the acquisition of behaviors and in which behaviors were governed in turn by conditioning and reinforcement. By removing mind from behavior, the possibility of rational action was removed also, but this was the precise and willing price to be paid for constructing a model of human social action on the postulates of physical science. Powerfully aided by the practical research demands of World War II, behaviorism gave rise to a power or domination model of communication in which study was narrowed into a focus on the means by which power and control are made effective through language, symbols, and media.

The second influence was more indirect but came initially from the powerful demonstration effect of the Hawthorn experiments. Conducted in a Western Electric plant in the Chicago suburbs, these studies gave rise to the often noted Hawthorn effect: that worker productivity rose over the cycle of the experiments because of the experiments themselves—Hawthorn gives us Heisenberg. What is less often noted is that the experiments were presumably a test of a model derived from Durkheim: that the factory should be viewed as an integrated social system to which the worker had to be adjusted. The findings of the experiments then gave rise to a new social role, a band of ambulatory counselors

whose task it was to resocialize the workers to their grievances. That is, the major lesson of the Hawthorn experiments was the discovery of the power of communication to serve as a means of therapy in the service of social control of the worker.

These movements in thought coalesced under Paul Lazarsfeld and his students, and communication studies in the immediate postwar years, impelled by the war effort and coordinate developments in cybernetics, were organized strictly as a subdiscipline of social psychology. Moreover, the models that guided this research yielded two alternative formulations of communication: in one model communication was seen as a mode of domination, in another as a form of therapy; in one model people were motivated to pursue power and in the other to flee anxiety. I characterize such models in this way to emphasize one simple point: these models were not merely models of communication, representations of the communication process. They were also models for the enactment of the communication process, powerful models of an actual social practice. Finally, the growth of these models within the intellectual community and the marriage of this social science to imitations of the physical sciences signaled a shift in the nature of American social scientists in general and communication students in particular. I refer here to the transformation of social scientists from a prophetic to a priestly class. It signaled the ingestion of social science into the apparatus of rule and a surrendering of the critical function of independent intellectuals.

These transformations in the study of communications connected, in turn, with a deeply recurrent cultural pattern in North America whereby the growth of technology in general—the printing press, literacy, communications technology in particular—is seen as part of a larger narrative of progress. The history of communications technology becomes the story of the expansion of the powers of human knowledge, the steady democratization of culture, the enlargement of freedom and the erosion of monopolies of knowledge, and the strengthening of the structures of democratic politics. From the onset of literacy through

the latest in computational gadgets, it is the story of the progressive liberation of the human spirit. More information is available and is made to move faster: ignorance is ended; civil strife is brought under control; and a beneficent future, moral and political as well as economic, is opened by the irresistible tendencies of technology.

This was the situation, admittedly reduced to a sketch, that pertained when Harold Innis died in the early 1950s. It is against this background that the achievement of Innis should be assessed. Innis produced a body of historical and theoretical speculation that sets out the major dimensions of communications history and the critical propositions and problems of communication theory, and he did so with maximal pertinence to circumstances in North America. This is the critical point. All scholarship must be and inevitably is adapted to the time and place of its creation. That relation is either unconscious, disguised, and indirect or reflexive, explicit, and avowed. Marx was among those who understood that scholarship must be understood in terms of the material conditions of its production as the prerequisite to the critical transcendence of those conditions. In an extended commentary on North American (and the only North American economist he took to be of importance, Henry Charles Carey) Marx described the distinctiveness of the North American social formation even as it resided within the framework of Western capitalism:

Carey is the only original economist among the North Americans. Belongs to a country where bourgeois society did not develop on the foundation of the feudal system, but developed rather from itself; where this society appears not as the surviving result of a centuries-old movement, but rather as the starting-point of a new movement; where the state, in contrast to all earlier national formations, was from the beginning subordinate to bourgeois society, to its production, and never could make the pretence of being an end-in-itself; where, finally, bourgeois society itself, linking up the productive forces of an old world with the enormous natural terrain of a new one, has developed to hitherto unheard-of dimensions and with unheard-of freedom of movement, has far outstripped all previous work in the conquest of the

forces of nature, and where, finally, even the antitheses of bourgeois society itself appear only as vanishing moments (Marx, 1973: 884).

Innis happily accepted as a starting point the inevitably ethnocentric bias of social science. Despite the enormous range of his scholarship, he was tied to the particularities of North American history and culture and the peculiar if not unprecedented role that communications played on the continent. He recognized that scholarship was not produced in a historical and cultural vacuum but reflected the hopes, aspirations, and heresies of national cultures. American and British scholarship was based, he thought, on a conceit: it pretended to discover Universal Truth, to proclaim Universal Laws, and to describe a Universal Man. Upon inspection it appeared, however, that its Universal Man resembled a type found around Cambridge, Massachusetts, or Cambridge, England; its Universal Laws resembled those felt to be useful by Congress and Parliament; and its Universal Truth bore English and American accents. Imperial powers, so it seems, seek to create not only economic and political clients but intellectual clients as well. And client states adopt, often for reasons of status and power, the perspectives on economics, politics, communication, even on human nature promulgated by the dominant power.

This commitment to the historical and particular led Innis to pursue communications in a genuinely interdisciplinary way. He was simultaneously geographer, historian, economist, and political scientist and he located communications study at the point where these fields intersected. Like the Chicago School, he shared in the revolt against formalism and ransacked experience without regard to discipline. Most critically, he rescued communications from a branch of social psychology and freed it from a reliance on natural science models. He was committed to the notion of pluralistic centers of scholarship as essential to cultural stability. To this end he attempted to restore to economics and communications a historical model of analysis. The central terms that he brought to the study of communications—the limitations of technology, the spatial and temporal bias

inherent in technology, the monopolies of knowledge toward which they tend and which they support, the analysis of social change, selective advantage, cultural stability and collapse—were not the terms of a verification model. They were, instead, a made-in-the-kitchen group of concepts with which to examine the actual historical record. Variations in history and geography demanded in scholarship concomitant variation in social theory and cultural meanings. Like Patrick Geddes, the Scottish biologist whom he resembles and from whom he borrowed, Innis believed that the search for intellectual universals could proceed only through the analysis of radical particularities of history and geography. This relationship between imperial powers and client states, whether in the sphere of economics, politics, or communications, was expressed in his work by a series of polarities with which he described political and cultural relations: relations between metropole and hinterland, center and margin, capital and periphery, or, in the more abstract terms he preferred, time and space.

In short, Innis provided in communication studies, at a moment when virtually no one else in the United States was doing so, a model of scholarly investigation that was historical, empirical, interpretive, and critical. His work was historical, as I have said, in the precise sense that he wanted to test the limits of theoretical work, to show the actual variations in time and space that rendered transparent the dangerous claim of universal theory. The historical imagination checked off the bias of the theoretical one. It was empirical in that he attempted to exhume the actual historical record and not those ironclad laws of development with which we have been plagued from Hegel forward. His work was interpretive in that it sought the definitions, the varying definitions, people placed upon experience in relation to technology, law, religion, and politics. Finally, his work was critical in the contemporary sense in that he was not proposing some natural value-free study but a standpoint from which to critique society and theories of it in light of humane and civilized values.

Innis also reformulated the ideas of the Chicago School often in a quite explicit way and attacked, albeit indirectly,

the notions of communications that had gained currency in American historical and scientific scholarship. In particular, from his earliest work he argued against the major versions of the frontier hypothesis "so gratifyingly isolationist that the source of inspiration and action was not at the centre but at the periphery of Western culture." Every frontier, in short, has a back tier. The "back tier" interest was determined by the extent to which the frontier products strengthened its economy, supplemented rather than competed with its products, and enhanced its strategic position (Heaton, 1966). The first back tier was Europe, and to that extent North American economic and communications development was part of the trajectory of European history. The development of this continent was decisively determined by the policies and struggles of European capitals. The consequences of those policies and struggles were outlined in his studies of staples: fur, fish, timber, and so on. With the gradual decline of the influence of Europe, the back tier shifted to the North American metropolitan centers—both Canadian and American—but effective control shifted toward New York and Washington relative to both the Canadian and American frontiers. The studies of paper and pulp brought that home and also led to the realization that in mechanized forms of communications new types of empire and back-tier/frontier relations were elaborated.

The United States, with systems of mechanized communication and organized force, has sponsored a new type of imperialism imposed on common law in which sovereignty is preserved *de jure* and used to expand imperialism *de facto* (Innis, 1950: 215).

In this observation he founded the modern studies that now exist under the banner of media imperialism, but his sense of the complexity of that relationship was considerably more subtle than that of most contemporary scholars. In particular, Innis knew something of the tensions, contradictions, and accommodations that existed between trading and communications partners. This allowed him, from the beginning, to pierce the organic metaphors that so often led

the Chicago scholars astray and masked the facts of history, geography, and power in a veil of metaphysics. Even if society were like an organism, there would be some controlling element, some centralized brain in the body, some region and group that would collect the power necessary to direct the nerves of communication and the arteries of transportation. There would be no transformation of the great society into the great community by way of disinterested technology but only in terms of the ways in which knowledge and culture were monopolized by particular groups.

Innis saw in the growth of communication in the late eighteenth and nineteenth centuries a continual process of decentralization and recentralization that moved forward in a dialectical way as small hinterland communities attempted to outrun metropolitan influence, only to be absorbed back into it later. The prevailing pattern of communication prior to the American Revolution was a classically imperial one. Messages moved on an east-west axis between London and the colonies. Communication between the colonies moved slowly and erratically, and in general the colonies communicated with one another via London. Following the revolution this same pattern prevailed for a time. News in early American newspapers was almost exclusively European in origin, and communication was stronger between the port cities and England than between the cities and their own American hinterland. Internal communication was slow and problematic, good only on the Atlantic sea corridor and only then when not adversely affected by weather. American towns and cities were relatively isolated from one another and connected only by common port cities or European capitals.

Following the War of 1812 the country embarked on a vigorous campaign for what were benignly called "internal improvements," the object of which, again benignly expressed, was an attempt to bind the nation together or connect the east with the west. In fact, what developed was the same pattern of communication of the colonial period but now with New York replacing London as the central element in the system. As Arthur Schlesinger, Sr. (1933) emphasized, what grew up over the first half of the

eighteenth century was a pattern of city-state imperialism. The major cities of the East vigorously competed with one another to replace London as the geographic center of trade and communications.

By the early 1800s New York was firmly established as the center of American communication and controlled the routes of trade and communication with the interior, a position it has never relinquished. It maintained first contacts with Europe through shipping and therefore information passed among American cities by being routed through New York. But every major city on the East Coast made its bid for control of the interior. New York's hegemony was secured by the Hudson River, the Erie Canal, and the resultant access to Chicago via the Great Lakes allowing New York to service and drain the Mississippi Valley. Philadelphia also attempted to control the West through an elaborate series of canals whose failure brought Pennsylvania to the verge of bankruptcy. Baltimore attempted through the first national highway, from Cumberland, Maryland, to connect into the Ohio River and terminate in St. Louis at the headwaters of the Missouri. Baltimore later tried with the Baltimore and Ohio Railroad, the first national railroad, to build this connection surer and faster; and even Boston, although blocked from the West by New York, attempted to become a railroad center and create access independent of the Erie Canal. As Alan Pred's (1973) studies have documented most thoroughly, the effect of the hegemony of New York was to draw the hinterland cities within its information field and to isolate the other East Coast cities.

New York's hegemony was in turn strengthened by the construction of the Illinois Central Railroad from Chicago to New Orleans. At the time of its building it was popularly called the "great St. Louis cut-off" because it was designed to isolate St. Louis from its natural trading partner, Baltimore. When the first transcontinental railroad was placed along the northern route, this again strengthened the centrality of New York. New York and therefore its merchants, firms, and elites controlled an increasingly centralized system of information that tied the northern tier together and even acted as a source of supply for many Canadian cities. It just as effectively

isolated the South. By every measure of communication the South, with the exception of New Orleans, was isolated from the rest of the country. There were poor interconnections between southern cities, and southern cities dealt with one another and the rest of the North only by first channeling communication through New York.³

Although this pattern of information movement has been importantly altered since the 1840s, its persistence, at least in outline, is even more striking. To be sure, the trade routes of culture laid down by the canal and railroad have been altered by the telegraph, wire services, magazines, films, telephone, broadcasting, and jet aircraft. But the centrality of New York in the flow of communications and culture, the importance of the New York-Washington corridor, and the metropole-hinterland connections that flow east and west are still there to be observed. In other words, despite the enormous size of the United States, a particular pattern of geographic concentration developed that gave inordinate power to certain urban centers. This development undercut local and regional culture. Although it aided in forming a national culture, it disguised how local—even provincial—this national culture was: a national and even international culture was defined increasingly by how the world was seen from a couple of distinctively local places. The point is that since 1800 we have lived with essentially a dominant eastern corridor of American communication that has created an effective monopoly of knowledge in news and entertainment. Concretely, today this means that a few national figures and themes are pretty much exclusively focused on politics and entertainment, that local issues are of interest only when they can be alchemized into national issues of concern in a few urban centers, and that the drama of news and entertainment must be made increasingly slick and abstract to appeal to national and, increasingly, international audiences.

Innis was also sensitive to the means by which the hinterland was in a continual struggle both to escape and to accept metropolitan dominance. There was an important truth in the Chicago School's notion of the importance of local community-building as a formative democratic experience.

In his essay entitled "Technology and Public Opinion in the United States" (1951), Innis attempted to show how localities and regions resisted the spread of communication, how the relationship was decided by a protracted series of conflicts over the spread of standard time, the mail order house, parcel post and rural free delivery, the department store and regionalized corporation. Moreover, he was concerned to point out how the Western newspaper was an instrument for resisting metropolitan dominance, how the telegraph initially strengthened the local and regional press until that too was undercut by the power of the wire services and chain papers. That is, the spread of a spatially biased system of communication was not even and uniform but resulted in a complicated interplay of resistance and acceptance that we have yet to adequately lay out in detail.

Moreover, the pattern of national spatial organization was reproduced in the organization of city after city and county after county. Seymour Mandelbaum's *Boss Tweed's New York* (1965) is a marvelous though often complacent study of the reorganization of New York City essentially on a metropole-hinterland model. My own studies suggest that same model of development holds true at the regional and county levels.

The United States, then, at all levels of social structure pursued what I call a high communications policy, one aimed solely at spreading messages further in space and reducing the cost of transmission. That is what Innis meant by exploiting the spatial bias of modern communication. Communication was seen, in other words, solely in the envelope of space and power. That communication might be seen as something else, as a container of human interaction that allows for the persistence and growth of culture, is a view that never entered policy. The distinction between power and container technology parallels Innis's distinction between space and time. But what Innis saw more clearly than most was how modern institutions were thoroughly infected by the idea of space. The universities were not exempt. Economics, political science, urban planning, sociology, and the physical sciences charted the problems and challenges of society in space. Even time was converted to space as the social sciences, enamored of prediction,

characterized the future as a frontier to be conquered. Even historians caught the bug using time merely as a container to tell the narrative of progress: politics, power, empire, and rule.

In summary, as the United States pursued an almost exclusive policy of improving communication over long distance, as it saw communication as a form of power and transmission, the effective units of culture and social organization underwent a radical transformation. There was a progressive shift from local and regional units to national and international ones, though not without considerable struggle and conflict. Individuals were linked into larger units of social organization without the necessity of appealing to them through local and proximate structures. Communication within these local units became less critical for the operation of society and less relevant to the solution of personal problems. Finally, the growth of long-distance communication cultivated new structures in which thought occurred—national classes and professions; new things thought about—speed, space, movement, mobility; and new things to think with—increasingly abstract, analytic, and manipulative symbols.

II

Innis's first major work was his doctoral dissertation, a history of the Canadian Pacific railroad. While studying the path of the railroad he discovered that it largely overlaid the routes of the old fur trade, and this led him to an interest in the economic staples (fish, furs, timber, pulp) that had been the basis of the Canadian economy. The discovery of the path of the fur trade led him to examine the competition of New France and New England for control of the North American continent. Subsequently, in his greatest work, *The Fur Trade in Canada* (1930), he argued against looking at history in terms of the prevailing paradigms of the time: the formal stages of German history or the American "frontier

hypothesis." He contended, in particular opposition to the "Turner School," that the settlement and development of Canada and the United States largely constituted an extension into the New World of the power and politics of Europe, particularly Spain, England, and France. He described North America by three broad bands: the Canadian North, defined by the Laurentian shield and the routes of the fur trade connecting New France and Europe by the coin of commerce; the American South, tied by staples, such as tobacco and cotton, to England; and between the two the mixed economy of the American North. The continent as a whole represented the adaptation of European culture to new geography. The patterns of trade were not a pure response to indigenous factors but rather were controlled even into the nineteenth century by policies of London, Madrid, and Paris. Moreover, the factors central to North American development were not such ethereal matters as frontier individualism but the rather harder facts of the biology of beavers, the role of staples in international trade and community settlement, and the persistence of unused capacity over the trade routes, which acted as constant stimulus to immigration. Innis also paid considerable attention to the differing social and economic motives of the imperial powers, motives that drove the French to the Rockies when the English were still at the Piedmont, and of the fatefulness of the contact between the tribal and oral cultures of the Indians with the literate culture of Europe, a contact that shattered Indian culture as they became dependent upon European goods and integrated into the European price system (Axtell, 1985). *The Fur Trade in Canada* is less a portrait, then, of North American particularism than of Europeanization of North America as an outpost of the first modern empires.

From his studies of the fur trade came the germ of two ideas that were later to control his studies of communication and his analysis of the relations of space and time. The first idea can be put as a question. What facilitated the great migration of European power, people, and culture beyond the perimeter of Europe into a "new world"? The second idea was an implication of the staple theory outlined in that book but developed later: communication, when considered

in terms of the medium that facilitated it, might be seen as the basic staple in the growth of empire.

First the question of European migration. The expansion of Europe into North America was based on a cluster of inventions in shipbuilding, navigation, and warfare. These inventions affected individual nations quite differently. However, the central impulse in each country was improvements in communications: high-speed sailing craft, reliable instruments of navigation, and, most important, printing.

As the first uses of writing were in matters of empire, warfare, and the state—assessing and collecting taxes, keeping records, dispatching military couriers, counting slaves, the bookkeeping of livestock captured, casualties, and confiscation—so too the first uses of printing were in the administration of nation and empire. We have come to think of writing and printing as elevated arts identified with holy books and literary art, but their immediate utilities were in the practical realm (Clanchy, 1979).

In the absence of printing, sporadic forays utilizing the new technology would have been attempted. However, printing encouraged the coordinated and systematic expansion of European empires. First, it encouraged the *centralization* of national authority through a uniform code of law, a standardized vernacular, a uniform educational system, and a centralized administration capable of integrating separate provinces, regions, and principalities. Second, it permitted the *decentralization* of national administration through the portability and reproducibility of a lightweight yet durable form of communication. National companies of trade, exploration, and settlement could be created—such as the Hudson's Bay Company, the company of One Hundred Associates, the Jamestown Bay Company—that could be directed and, to a degree, monitored and controlled through the marriage of print and relatively rapid navigation. It was print and navigation that allowed European nations to burst the bonds of geography and spread into a "new world."

While print permitted and even encouraged this imperial expansion, print, as the colonial powers soon discovered,

had its limitations. The French empire stretched from the maritimes to New Orleans, was thinly settled, and was held together only by military strength. The weakness of communication in the American colonies permitted an effective federalism to develop despite British efforts to counter it. Not until the nineteenth century, with the decrease in time of Atlantic crossing and the growth of an effective mail service, did control of the American colonies become possible from London, but by then history had turned a corner.

If Innis was led to study communication originally by the contact of the tribal and oral cultures of the Indians with literate European cultures and by the role of print in facilitating imperial expansion, he was led to move communication to the center of his studies when he expanded his analysis of Canadian staples into wood pulp and paper. Here he made a significant discovery, albeit not a serendipitous one, for it is foreshadowed clearly in his earlier work. With the rapid expansion of the American newspaper industry following the invention of the "penny press," American demand for Canadian pulp and paper was intensified. The rapid growth of the American economy pressed the United States into an increasingly worldwide search for raw materials. Canada, by the conspiracy of geography and the history of European empire, was cast as a staple economy providing such raw materials to England and the United States. Consequently, many of the decisions central to Canadian development were made in London, New York, and Washington, increasingly in this century in the United States. To support its imports the United States exported capital, commodities, and, increasingly, culture. In his studies of paper Innis discovered the true Canadian double bind. The United States imported the raw material of printing from Canada under the doctrine of freedom of trade, a doctrine of Manchester economics that the United States selectively adapted to its interests. It then exported back into Canada the finished products fashioned from Canadian raw materials: newspapers, books, magazines, and, above all, advertising and defended its exports with the doctrine of freedom of information. Here was the Canadian dilemma: caught between the scissors of American demand for paper and American supplies of newspapers,

magazines, and books, its independent existence in North America was threatened.

It was this realization that turned Innis to the study of the relations of time and space, to the relationship between the routes of trade and routes of culture. He initially characterized the history of the modern West as the history of a bias of communication and a monopoly of knowledge founded on print. In one of his most quoted statements Innis characterized modern Western history as beginning with temporal organization and ending with spatial organization. It is the history of the evaporation of an oral and manuscript tradition and the concerns of community, morals, and metaphysics and their replacement by print and electronics supporting a bias toward space.

Innis argued that changes in communication technology affected culture by altering the structure of interests (the things thought about) by changing the character of symbols (the things thought with), and by changing the nature of community (the arena in which thought developed). By a space-binding culture he meant literally that: a culture whose predominant interest was in space—land as real estate, voyage, discovery, movement, expansion, empire, control. In the realm of symbols he meant the growth of symbols and conceptions that supported these interests: the physics of space, the arts of navigation and civil engineering, the price system, the mathematics of tax collectors and bureaucracies, the entire realm of physical science, and the system of affectless, rational symbols that facilitated those interests. In the realm of communities he meant communities of space: communities that were not in place but in space, mobile, connected over vast distances by appropriate symbols, forms, and interests.

To space-binding cultures he opposed time-binding cultures: cultures with interests in time—history, continuity, permanence, contraction; whose symbols were fiduciary—oral, mythopoetic, religious, ritualistic; and whose communities were rooted in place—intimate ties and a shared historical culture. The genius of social policy, he thought, was to serve the demands of both time and space; to use one to prevent the excesses of the other: to use historicism

to check the dreams of reason and to use reason to control the passions of memory. But these were reciprocally related tendencies. As cultures became more time-binding they became less space-binding and vice versa. The problem again was found in dominant media of communication. Space-binding media were light and portable and permitted extension in space; time-binding media were heavy and durable or, like the oral tradition, persistent and difficult to destroy. In propositional form, then, structures of consciousness parallel structures of communication.

The printing press created new forms of cultural association best expressed as the introduction of a horizontal dimension into modern states and into international relations as well and as an alteration in the meaning and relations of social classes. Charles Beard selected 1896 as the pivotal year in modern American history because the political conventions of that year introduced horizontal cleavages into society that were overlaid on existing vertical ones.

Deep underlying class feeling found its expression in the conventions of both parties and particularly that of the Democrats, and forced upon the attention of the country in a dramatic manner a conflict between great wealth and the lower middle and working classes which had hitherto been recognized only in obscure circles. The sectional or vertical cleavage in American politics was definitely cut by new lines running horizontally through society (Beard, 1914: 164).

It is not accidental that Beard chose the period in which a national communication system, through the agency of the news service and the national magazine as well as rural free delivery and the mail order house, was emerging to mark this new historical phase. He is implicitly contrasting horizontal forms of association with local and regional communities. These latter communities naturally possessed a class structure, but such structure revealed class variations on a common culture: vertical divisions within communities and not horizontal units across them. Improvements in long-distance communication created a series of national classes or, better, class-factions, first in business but

eventually spreading out into every domain of human activity. These national horizontal units of organization created by space-binding forms of communication possessed greater reality in terms of culture and power than the local units from which they sprang. The upshot of the Progressive Movement, of which Beard himself was a part, was not, in the phrase of John Dewey, the transformation of a great society into a great community but what Robert Wiebe has called a segmented society: innumerable horizontal communities tied together across space, attenuated in time, and existing relative to one another not as variants on an explicitly shared culture but, in David Riesman's apt term, as "veto groups." Moreover, there was little relation among these segments except the exercise of power and manipulation.

Beard states, then, the relation between time and space and between long- and short-distance communication Innis later exploited. If communication is physically effective over short distances and weak and attenuated over long ones, we would expect that the units of culture, politics, and the common concern that would emerge would be grounded in place, in region, in local communities. These communities would be vertically stratified, but it would still be sensible to speak of a shared culture and politics among them. Small deviations in space would produce great differences in culture and interests. Larger units of social organization that emerged would be not national but federal: amalgamations of local structures into more comprehensive communities. However, as long-distance communication improves, both local and federal relations evaporate into a stratified national community. Large numbers of people physically and culturally separated become effective national communities of culture and politics. As long-distance communication improves and short-distance deteriorates, we would expect that human relationships would shift to a horizontal dimension: large numbers of people physically separated in space but tied by connection to extra-local centers of culture, politics, and power.

III

Innis was everywhere intent on demonstrating the paradoxical nature of changes in the technology of communications. Nowhere was this sense more apparent than in his critique of the American Constitution and the first clause protecting freedom of the press. Although traditional liberal values can be found sprinkled throughout his work, he saved some of his most savage language for assaults on the common interpretation of the Anglo-American notion of freedom as it was institutionalized in views of the press. He argued that the First Amendment did not so much grant freedom of speech and press as give constitutional protection to technology and in this sense restricted rather than expanded freedom:

Freedom of the press has been given constitutional guarantees as in the United States [and] has provided bulwarks for monopolies which have emphasized control over space. Under these conditions the problem of duration or monopoly over time has been neglected, indeed obliterated. Time has been cut into pieces the length of a day's newspaper (Innis, 1954: 89-95).

The free press clause served largely to consolidate the position of the newspaper's monopoly of knowledge and eventually, through the newspaper's dependence on advertising and news, was instrumental in telescoping time into a one-day world, in spreading the values of commercialism and industrialism and furthering the spatial bias of print. In granting freedom of the press, the Constitution sacrificed, despite the qualifying clause, the right of people to speak to one another and to inform themselves. For such rights the Constitution substituted the more abstract right to be spoken to and to be informed by others, especially specialist, professional classes.

The full impact of printing did not become possible until the adoption of the Bill of Rights in the United States with its

guarantee of freedom of the press. A guarantee of freedom of the press in print was intended to further sanctify the printed word and to provide a rigid bulwark for the shelter of vested interests (Innis, 1951: 138).

Innis refused to yield to the modern notion that the level of democratic process correlates with the amount of capital invested in communication, capital that can do our knowing for us, and fervently hoped that his work would break modern monopolies of knowledge in communication and further restore the political power of the foot and the tongue.

There certainly was something romantic in Innis's affection for the oral tradition, but there was much more: a concern with the very possibility of public life. He identified the oral tradition with the Greeks and with Plato's attack on writing in the *Phaedrus*:

If men learn this writing it will implant forgetfulness in their souls; they will cease to exercise memory because they rely on what is written, calling things to remembrance no longer from within themselves but by means of external marks; what you have discovered is a recipe not for memory but for reminder. And it is not true wisdom that you offer your disciples, but only its semblance (Hackworth, 1972: 157).

The objections to writing here are twofold: it is inherently shallow in its effects, and essential principles of truth can be arrived at only dialectically. Writing is shallow in its effects because reading books may give a specious sense of knowledge that in reality can be attained only by oral question and answer; and such knowledge in any case goes deep only when it is inscribed in memory, "when it is written in the soul of the learner" (Hackworth, 1972: 159).

We associate democracy with widespread literacy and a world of knowledge as transcending political units. Yet even though literacy can give rise to a form of democracy, it also makes impossible demands. Literacy produces instability and inconsistency because the written tradition is participated in so unevenly.

Improvements in communication . . . make for increased difficulties of understanding. The cable compelled contraction of language and facilitated a rapid widening between the English and American languages. In the vast realm of fiction in the Anglo-Saxon world, the influence of the cinema and the radio has been evident in the best seller and the creation of special classes of readers with little prospect of communication between them. . . . The large-scale mechanization of knowledge is characterized by imperfect competition and the active creations of monopolies of language which prevent understanding (Innis, 1951: 25-29).

That is, modern technology actually makes communication much more difficult. Rational agreement and democratic coherence become problematic when so little background is shared in common. As Bertha Phillpotts argued in 1931:

Printing so obviously makes knowledge accessible to all that we are inclined to forget it also makes knowledge easy to avoid. A shepherd in an Icelandic homestead . . . could not avoid spending his evenings listening to the kind of literature which interested the farmer. The result was a degree of really national culture, such as no nation of today has been able to achieve.⁴

Literate culture is much more easily avoided than an oral one, and even when it is not avoided, its actual effects may be relatively shallow. Lacking an oral culture, one may easily fall prey to experts in knowledge who do our knowing for us, who inform us but whose knowledge does not easily connect to our actual experience and to the basic transactions of life.

In short, Innis believed that the unstated presupposition of democratic life was the existence of a public sphere, of an oral tradition, of a tradition of public discourse as a necessary counterweight to printing. In the more telegraphic prose of his notebooks Innis observed:

Commercialism tends to make for imperfect competition between levels of reading public and to fix various groups within level. Average man cut off from literature. Problems of making fiction a channel of communication between publics

... reading public disintegrated by imperfect competition in publishing industry (Innis: 30).

The First Amendment, then, did not secure the permanence of public life; in fact it acted against it because it finally placed the weight of education on the written tradition. Modern media of communication, largely for commercial purposes, created a system of communication that was essentially private. Private reading and the reading audience replaced the reading public and the public of discussion and argument. The system of communication that actually evolved was grounded, therefore, not merely in a spatial bias but in a privatized one as well. It was privatization more than the Bill of Rights that led to the decline of censorship: "Decline in the practice of reading aloud led to a decline in the importance of censorship. The individual was taken over by the printing industry and his interest developed in material not suited to general conversation" (Innis, 1952: 10). Under such conditions the public becomes a mere statistical artifact, public taste a measure of private opinion that has been both cultivated and objectified but not realized in discourse. With that the public sphere goes into eclipse.

The strength of the oral tradition in Innis's view was that it could not be easily monopolized. Once the habits of discourse were widespread, the public could take on an autonomous existence and not be subject to the easy control of the state or commerce. Therefore, the major intellectual project of Innis's later life, a project of importance to both politics and the university, was the restoration of the oral tradition—by which he meant a set of talents at memory, speech, and argument and a sphere, a place or institutional home, in which such a tradition might flourish. "Mass production and standardization are the enemies of the West. The limitations of the mechanization of the printed and the spoken word must be emphasized and determined efforts to recapture the vitality of the oral tradition must be made" (Innis, 1950: 215). Here he agreed with John Dewey. Speech is the agency of creative thought; printing of dissemination. It was precisely the imbalance between the processes of creativity and dissemination that Innis sought to correct.

Mechanical communication transformed the reading and listening public into a reading and listening audience with disastrous consequences for democracy.

Innis's attachment to the oral tradition finally, then, had a modern purpose: to demonstrate that the belief that the growth of mechanical communication necessarily expanded freedom and knowledge was both simplistic and misleading. For that to happen there would have to be a parallel and dialectical growth of the public sphere, grounded in an oral tradition, where knowledge might be "written in the soul of the learner." Freedom of the press *could* suppress freedom of expression.

Innis argued that *any* form of communication possessed a bias; by its nature it was most adept at reducing signaling time and controlling space or strengthening collective memory and consciousness and controlling time. This bias hardened into a monopoly when groups came to control the form of communication and to identify their interests, priestly or political, with its capacity.

In economic terms monopoly simply means the control of supply by a single source. If knowledge is viewed as a commodity, as something that can be possessed and distributed, then it too can be monopolized: the sources of knowledge, skill, or expertise can be reduced to one. Obviously, for monopolies of knowledge to grow, some division of labor must be present, for as with other commodities, monopolies can grow only when people are dependent upon an external source of supply. When they are capable, through control of knowledge and resources, of producing goods for themselves, monopolies are inhibited. In Innis's view commercialism was a system that ultimately transferred all control from the person and community to the price system: where people are fed every product, including knowledge, by a machine they merely tend.

The strength of the oral tradition, in Innis's view, derived from the fact that it could not be easily monopolized. Speech is a natural capacity, and when knowledge grows out of the resources of speech and dialogue, it is not so much possessed as active in community life. But once advanced forms of communication are created—writing, mathematics,

printing, photography—a more complicated division of labor is created and it becomes appropriate to speak of producers and consumers of knowledge. Through the division of labor and advanced communications technology, knowledge is removed from everyday contexts of banquet table and public square, workplace and courtyard, and is located in special institutions and classes. In extreme form we come to speak of a knowledge industry, and meanings are not dignified as knowledge until they are processed through that industry or certified by designated or self-designating occupations, classes, organizations, or even countries.

Innis argued that the effect of modern advances in communication was to enlarge the range of reception while narrowing the points of distribution. Large numbers are spoken to but are precluded from vigorous and vital discussion. Indeed audiences are not even understood. Professional classes appropriate the right to provide official versions of human thought, to pronounce on the meaning present in the heads and lives of anonymous peoples. In *Changing Concepts of Time* he commented that vast "monopolies of communication occupying entrenched positions involved a continuous, systematic, ruthless destruction of elements of permanence essential to cultural activity" (1952: 15). He is claiming something more than the now commonplace observation that over time the media of communication become increasingly centralized and conglomerate. He is not merely claiming that with the growth of the mass media and the professionalization of communication a few journalists, for example, achieve vast readership while other people are reduced to representation in the letters to the editor. He is claiming that the commodity called "information" and the commodity called "entertainment" and the knowledge necessary to produce these things of the world become increasingly centralized in certain elites and institutions. The civic landscape becomes increasingly divided into knowledgeable elites and ignorant masses. The very existence of a commodity such as "information" and an institution called "media" make each other necessary. More people spend more time dependent on the journalist, the publisher, and the program director. Every week they wait for *Time*.

The new media centralize and monopolize civic knowledge and, as importantly, the techniques of knowing. People become "consumers" of communication as they become consumers of everything else, and as consumers they stand dependent on centralized sources of supply.

The development, then, of monopolistic—or, if that is too strong, oligopolistic—structures of knowledge and knowing and the professional classes that control them expropriates the more widespread, decentralized body of human impulses, skills, and knowledge on which civil society depends. Given a network of such monopolies backed by corporate economic and political power, we reach a stage under the impulse of advanced communication at which there is simultaneously advancing knowledge and declining knowing. We keep waiting to be informed, to be educated, but lose the capacity to produce knowledge for ourselves in decentralized communities of understanding. All this apparatus generates is continuous change and obsolescence: time is destroyed, the right to tradition is lost.

IV

Satellites and cable television, video phones and computer information utilities, telex and direct broadcasting, multinational corporations and common markets have posed anew all the questions Innis raised. Unfortunately, response to these developments possesses none of the power and scope of the political and cultural economy Innis developed. The age of electrical machines has been savagely portrayed in dystopian tracts of the same kind that emerged at the onset of industrialization. Others have tried to analyze the new technology in terms of the qualitative differences between mechanics and electricity, between paleotechnic and neotechnic technology. Still others have pinned their analysis to the difference between communications organized on socialist as opposed to capitalist principles. Another solution to our dilemmas is offered by a cadre of technocrats

committed to no political theory who energetically demonstrate how the new technology will solve every problem of politics, the economy, health, and even loneliness and isolation. They propose to solve the "problem of communication" by identifying the entire human habitat with it. Finally, modern utopians have resurrected the original language of industrialism and presented a bright new world aborning by the automatic action of electrical machines. One finds among them the pleasant notion that we are now outgrowing the nation-state and that a new form of world order is emerging, a global village, a universal brotherhood or world government on a shrunken planet—spaceship earth.

Most of this is pleasant if not dangerous nonsense. What we are witnessing is another increase in the scale of social organization based upon electronic communication. We are witnessing the imperial struggle of the early age of print all over again but now with communication systems that transmit messages at the extremes of the laws of physics. We are witnessing larger federations of power developing out of the nation-state: the Soviet bloc, the Common Market, North America. Institutional structures are already being evolved in multinational corporations, regional federations, and modern cartels. Multinationals could not exist without jet planes, advanced computers, and electronic communication. Such organizations are even creating, through electronics, a new culture. In the nomadic travels of ITT executives the telephones become an obsession, as Anthony Sampson puts it,

not only because ITT makes them but because they abolish distance and provide a reassuring link with home base. The more uprooted the way of life, the more dependent the multinational managers become on their company, which forms the carapace within which they travel. I overheard one ITT manager in his Brussels hotel joking on the telephone for twenty minutes with New York. . . . Inside these giant organisms differences of nationality seem often less important than differences of company (Sampson, 1974: 99).

There is also a pattern of decentralization occurring. First, through satellite communication there occurs a thrusting

out of cultures into new regions of space. This movement is part of a system of national and regional rivalries, which find expression in satellite broadcasting. When in a few years television images will be transmitted over national boundaries to home receivers, the United States and the Soviet Union as the two largest electronic powers can enlarge the region and particularity of their influence.

Beyond the use of satellites for direct, nation-to-person broadcasting, there is a second dimension to the current decentralization and extension in space of electronic communication. The second arena in which the United States and the Soviet Union are in competition is the arena of space itself. The advent of exploration and utilization of space is in its infancy, and one cannot predict what the ultimate uses of these lifeless colonies will be, though one should not be surprised if we again send people "into transportation." The delays in space exploration did not derive from deficiencies of rocket thrust. The real delay was the development of a system of communication that would allow space travel to be controlled from earth. As printing went with seagoing navigation and the telegraph with the railway, electronic and computer-based communication go with the space ship. In the absence of communication that matches the speed of light and exceeds the speed of the brain, some hardy pioneer might have tried to thrust himself off to the moon, although capital costs alone, as in the age of navigation, make that unlikely. The availability of electronic communication, with its capacity to increase control by reducing signaling time, has turned space into the next area of expansion. The meaning of electronic communication is not in the news that informs us or the entertainment that distracts us but in the new possibility to turn space into a domain of geographical and political competition for the most electronically advanced nations.

Electronics has the potential for the perfection of a utilitarian attitude and the indefinite expansion of the administrative mentality and imperial politics. Electronics, like print in its early phases, is biased toward supporting one type of civilization: a powerhouse society dedicated to wealth, power, and productivity, to technical perfectionism and ethical

nihilism. No amount of rhetorical varnish would reverse this pattern; only the work of politics and the day-by-day attempt to maintain another and contradictory pattern of life, thought, and scholarship. As Innis pointed out, the demise of culture could be dispelled only by a deliberate cutting down of the influence of modern technics and cultivation of the realms of art, ethics, and politics. He identified the oral tradition with its emphasis on dialogue, dialectics, ethics, and metaphysics as the countervailing force to modern technics. But support of such traditions or media requires that elements of stability be maintained, that mobility be controlled, that communities of association and styles of life be freed from the blinding obsolescence of technical change. However, the demands of growth, empire, and technology put an emphasis—in education, politics, and social life generally—on those media that fostered administrative efficiency such as print and electronics. Only by supporting the countervailing power of substantive rationality, democracy, and time would the bias of technology be controlled. That is the task that Innis summarized in one of his greatest essays, "A Plea for Time."

Notes

- 1 The phrase comes from notes taken by Charles Cooley on a Dewey lecture in Ann Arbor as quoted in Matthews (1977).
- 2 The Registrar of the University of Chicago was kind enough to send me a copy of Innis's transcript with grades appropriately and delicately blanked out.
- 3 The analysis relies on Pred (1973, 1980), but the outlines of the argument are present in Innis (1930), particularly the concluding chapter.
- 4 As quoted in Goody (1968). This section borrows from and paraphrases the work of Goody and Watt therein.

CHAPTER 7

The History of the Future WITH JOHN J. QUIRK

In *The Image of the Future* (1961) F. L. Polak has traced the human preoccupation with the future to its ancient roots in Delphic oracles and astrological priesthoods. However, the modern history of the future originates with the rise of science and onset of the age of exploration. Armed with the techniques of modern science, especially the new measuring devices of precise clocks and telescopes, a secular priesthood seized hold of the idea of a perfect future, a zone of experience beyond ordinary history and geography, a new region of time blessed with a perfect landscape and a perfection of man and society. Nevertheless, there exists a continuity from the ancient astrologers of the temple, tribe, and city to modern scientists, for both are elevated castes who profess special knowledge of the future—indeed, establish a claim of eminent domain over the next stages of human history.

Modern oracles, like their ancient counterparts, constitute a privileged class who monopolize new forms of knowledge and alternatively panic and enrapture large audiences as they portray new versions of the future. Moreover, modern scientific elites often occupy the same double role of oracles to the people and servants of the ruling class as did the astrologers of ancient civilization. And they rely on a similar appeal to authority. Ancient astrologers used their ability to predict the behavior of planets to order social life through the calendar and to regulate agriculture. The knowledge of astronomical order in turn supported their authority as all-purpose seers capable of taming the future. Similarly,