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Modes of Communication

In communication studies, there is a unique, if somewhat problematic, body of literature that looks at the articulation of space, technology, and everyday life. This body of literature is sometimes called the *modes of communication* argument. Although modes of communication verges perilously on technological determinism, it introduces insights that merit a closer look. Generally, the argument holds that culture has moved through several "modes" of communication—several whole new ways of life that have been given definition by particular technological ways of communicating. Three modes central to the argument are: orality, literacy (script and print), and electronic (or digital—it is always most difficult to name the mode you find yourself in). While this argument has been developed in much greater detail elsewhere, we present just enough here to highlight the integral connection between technological culture and space. Specifically, we look at oral, literate, and electronic media and arguments made regarding their integral connection to space.

Orality

We begin, somewhat historically, with orality, the medium of the spoken word or spoken language. Language is, after all, a technology: it is a creative externalization that then requires reperception and engagement in a dynamic process of scaffolding. ¹⁴ In a culture that is completely unfamiliar with writing—a condition

called *primary orality*—sound and the spoken word take on a particular shape and importance with implications for concepts of time and space.¹⁵ As Walter Ong, Jack Goody, and Ian Watt have explained, sound goes out of existence just as soon as it comes into existence. In other words, sound does not hang about. It has no permanence. Once a sound is uttered, it expires and cannot be called back.

Most communication in oral culture is face-to-face, since the human voice can only carry so far, which makes most social relations personal and direct. To communicate in this culture, one must pay attention, because there is no going back unless someone repeats what was just said. Repetition is, however, a separate utterance, not an exact copy of the first. The practice and art of repetition, in fact, become very important in spoken language in order to aid memory. Memory is paramount in oral culture because once something is forgotten by all members of the culture, it is really gone. There is no looking it up later. Because it is easier to remember narrative and rhythm than discrete facts, important information, such as when to plant crops, is typically "stored" in stories, rhyme, or song. Further, if one is in a group and someone is talking or singing, everyone in that group shares that experience; they hear at the same time. The sound is unavoidable.

Given this reliance on the spoken (or sung) word in order to remember, there is very little room for independent thought in a primary-oral culture. Consider this: If one has an original idea, how does one remember it? Consequently, primary-oral culture is characterized by a group-oriented mindset and cohesion. Ritual storytelling is essential and there is an emphasis on tradition. Consequently, the reach of face-to-face interaction and the maintenance of group cohesion define the space of oral culture. Those who remember (such as elders or designated keepers of stories) are revered and powerful, but only insofar as they contribute to group cohesion.

Harold Innis, a Canadian economist writing in the mid-1900s, described primary oral cultures has having a bias toward time, rather than a bias toward space. A bias toward time means that the culture maintains cohesion by exerting control over time, that is, by managing memory, keeping and telling stories, in such a way that time is collapsed into a perpetual present. To claim "that is how we have always done things" or "if you do x, y will happen, because it has happened that way before," are ways of perpetuating order and cohesion by obliterating the difference between what we would now understand as past and present. Time biased cultures operate within a limited spatial context, dependent on the sound of one's voice. The small tribal unit characterizes the optimal space of a primary oral culture; it has little concern to exert control beyond that space of one's voice. The shift in balance from time bias to space bias is dramatic, with the transition from oral culture to literate culture.

Literacy

Once a culture adopts writing and reading, things change dramatically. The crucial development is the separation of the message from the sender, which permits the message to move independently in space. This brings into being the distinc-

tion between forms of expression and forms of content. Messages can now travel to those not present at their utterance, which rearticulates the role of memory (of the faulty memory of the messenger, for instance) and processes of distortion (of a message as it passes from person to person, for instance). Communication with the imprimatur of authenticity can now reach across a greater space, thus expanding the influence of a culture. Leaders can control empires by sending messages across long distances. Collapsing space, another way of thinking about controlling space, becomes a critical concern of these cultures; hence they are considered to have a space bias.

Simultaneously, the ability to control time diminishes. With writing and reading, a (relatively) permanent record of communication minimizes the need to memorize. Instead, the maintenance of collective and personal memory becomes a matter of storage in physical form, and archives become important repositories and sources of power. The ability to consult records and multiple versions of stories breaks down the coherence of a collapsed time. There are now pasts, presents, and possible futures, and those who give shape to the records, and have access to them, hold power. The ability to read and write, as well as to create, maintain, and access libraries of information, becomes a potent resource. Knowledge becomes centralized in the hands of the powerful few with the foresight and might to compile, control, and interpret it. Once detached from its form of content, the form of expression is open to new possibilities for interpretation.

Group cohesion diminishes, as does reverence for elders, when memory is no longer important, when memorization and performance are no longer group activities, and the form of expression can be detached from the content. Individual creativity, personal isolation, and independence become the standards of literate cultures. The ability to store information outside the body frees space in one's mind for creative thought. Unlike attending to sound, the act of reading is fundamentally a solitary experience. One reads to oneself, even if one is in a group. Even while reading the same passage to themselves, readers give the text their own meaning and inflection. In literate societies, what is called the *cultural time lag* exacerbates this situation. This lag is a literal one, marking the lag in times between when something is written, disseminated, and read. Further, since people do not all read the same things or may read the same things at different times, there is less in common and thus less social cohesion. Thus, when compared to primary oral cultures, literacy tends to isolate people rather than draw them together.

Because not all written communication is the same, the significance of the balance between time and space biases varies among literate media. Innis pointed out the profound differences that various writing media can make on the structure of a society. For example, the ancient Egyptians carved their writings on stone, a rather enduring medium. These carvings were meant to last for ages, passing on the traditions, knowledge, and religion of the rulers for "eternity." Therefore, this medium has a relative bias toward time. Since the writing process was slow, and the written materials not easily moved, power tended to be centralized and

Space

concentrated in the hands of the rulers who controlled access to the sites where the writings were stored.

The invention of papyrus changed matters. Papyrus was a lightweight paper-like medium made from reeds woven together, crushed, dried, and pounded smooth. Papyrus was easier to write on and could be readily carried from one part of the realm to another, enhancing the bias toward space. These factors supported significant changes: The pharaohs could communicate accurately and swiftly with distant parts of their realm, thus facilitating the extension of their power over greater distances and making empire possible for the first time.

With papyrus available in greater quantities, and an increased demand for writing, the scribal class expanded, beginning a slow movement toward universal literacy. However, papyri quickly crumble, which means that their writings were not meant for the ages. Something closer to universal literacy became possible with the mass production of paper and eventually the cheap presses of the nine-teenth century.

Print Culture

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Printing technologies constitute a significant later stage in the literate mode of communication. The invention of the printing press with interchangeable metal type (first invented independently in Korea and then more famously in Gutenberg's shop in Germany) contributed to a variety of cultural transformations. Written language became standardized, the volume of printed materials increased, and the price of books decreased. These transformations allowed for printing in vernacular (local) languages. Prior to this, books were mainly written in Latin, the language of the Catholic Church. The Church had virtually monopolized book production and the education of literate people throughout the Middle Ages. By printing in vernacular languages, the printers challenged the Church's authority and broke the monopoly on printed knowledge. Benedict Anderson has even argued that print languages (as he calls them) were a crucial component in the rise of the modern nation-state, what he calls "imagined communities." Print languages also contributed to a greater sense of history in modern society. Since handwritten language changes so much in style and form over generations, older manuscripts can become quickly illegible. In contrast, a standardized print language set in metal type allows us to read books printed more than 500 years ago.

Let us sum up briefly before moving on. When we only communicated orally, our space was small, localized, and centered on the group. Written language allowed us to individualize our experiences of space and expand it, because we could read about distant events and communicate with and control distant peoples. Our sense of space, then, was no longer limited to the spaces we experienced immediately, but included far-off and imaginary spaces known only through writing.

Electronic Communication

The current mode of communication has been called the electronic mode, but more recently it is sometimes referred to as the computer era, the digital mode,

or the Information Age. Regardless of what name is finally adopted, the communication medium that marks the new mode is the electronic telegraph. During the 1830s there were various experimental forms of electric telegraphy, although it was not until Samuel Morse developed his code (Morse Code) that the technology was rendered cost effective. 18

Communicating via electrical signal was virtually instantaneous, allowing one to be in immediate contact with someone else hundreds of miles away. Though now an accepted part of our everyday routines, this required a fundamental shift in spatial practice, representations of space, and representational space. Prior to electric communication, messages only traveled as fast as the transportation technologies that carried them (ship, horse, wagon, and so on). In fact, communication and transportation were virtually synonymous. The primary change that the telegraph affected, James Carey and John C. Quirk have argued, is the separation of communication from transportation. In Instantaneous communication thus altered the structure of space. In so doing it also altered the economy by restructuring national stock and commodity markets. As Carey explains, telegraphy made it possible to level markets in space, because prices could be easily compared. Thus markets shift to speculating on futures, because the effects of change over time could not be controlled. In the controlled of the controlled of the controlled.

The telephone compounded changes in space by separating the sound of one's voice from the speaker. Because hearing someone's voice conveys a sense of presence or nearness, the telephone brought those far away into a form of spatial nearness, what is now called telepresence. Notice how we sometimes say—with just a touch of wonder—to someone on the telephone who is otherwise far away, "you sound like you are just next door." This collapsing of space continued with the advent of radio and television. Marshall McLuhan, a student of Innis, predicted in the 1960s that we were coming to live in the space of a global village. He argued that instantaneous global communication, via satellite and submarine cables, puts us almost literally in each others' backyards, thus forcing us to be as concerned with one another as neighbors are. However, McLuhan ignored the ways that sudden proximity can also cause enmity among neighbors.²¹

The coming of electronic communication contributed to yet another change in our practices and experience of space. It shifted communication away from the eye (in terms of reading) and back to the ear. We have entered a stage of what Walter Ong has called *secondary orality*, in which orality is shaped and sustained by technologies that depend on literacy, including printing and electronic technologies. In a secondary oral culture, we attend aurally as well as visually to communications aimed at groups; mass broadcasting is the archetype technology. Ong argues that this leads to a strong group sense that is more powerful in its size and in its ability to extend across space than is the group sense of a primary oral culture. Furthermore, in secondary oral cultures, individuals have the choice of independence or group belonging. ³² One may be group minded, but can be self-consciously so. This is not the case with primary oral cultures, where group belonging is a necessity of life. The possible dangers of secondary orality are ex-