

COMM 750, Special Topics: Media, technology and cultural change

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(Based on Pat Dooley, *The Technology of Journalism*, and other resources)

Research in history has indicated that technological change seems to bring about significant changes in communication. We probably can identify this not only in modern journalism and the mass media, but in all of recorded history. But the “technological revolution” of one era may not be considered technology using today’s standards. For example, the development of a written language certainly led to dramatic change in world culture. But we wouldn’t today call the ability to write a technology. The printing press is not even really necessary anymore for mass communication, but its invention in the 1400s changed the world probably more than the internet today. We think the internet is unprecedented in its speed of communication, but in the nineteenth century the invention of the telegraph revolutionized the way we gathered, sent, and consumed news, because it was instantaneous. Photography made it possible to actually see what other parts of the world looked like, in great detail. And it even allowed us to see ourselves differently—because before photography, people didn’t really perceive the changes of youth and age.

But technological revolutions in communication have not necessarily eliminated other important ways of communication. Even with a printing press, or with the internet, for that matter, we still may get important news from family and friends. News criers in as far back as ancient Rome communicated by pronouncement, and posters on walls date from ancient times—yet still communicate today.

People often become really excited about technology and its supposed revolutionary ability to change culture and communication.

Samuel F.B. Morse thought his introduction of the telegraph in 1844 so revolutionary that he devised the first message to be full of seriousness and gravity: “What Hath God Wrought?” Fred Friendly, the famous 1950s television news producer, wrote that television “Is bigger than any story it reports. It is the greatest teaching tool since the printing press.” Susan Sontag, the philosopher of visual images, remarked that we call a scene “as pretty as a picture,” suggesting the power of photography is greater than the power of the actual scene. Many historians have argued that technological advancements have been the driving change behind media, and these have brought dramatic change to culture as well. Isaiah Thomas wrote the earliest account of American media history in 1810, but he called it *The History of Printing in America*. His point was that the technology of the printing press, and its ability to publish newspapers, drove the American Revolutionary War and subsequent growth of the country. Other early historians agreed, arguing that technology was all-important in media and cultural change. Willard G. Bleyer, who in 1927 wrote probably the most influential history of the press, argued that technology certainly helped drive change in mass media. About the early 20th century, he wrote:

“The age was one of machinery. Ingenious machines were devised to do practically everything that had previously been done by hand. ...The present-day newspaper is a machine-made product to a greater extent than ever before.”

Journalism, he emphasized, was changed because speed and efficiency of machines made it possible.

I guess this would seem to be common-sense, especially as nowadays we are so seemingly obsessed with the apparent magic of our digital technology. But some historians and others have taken a different look at these supposed technological revolutions. Bleyer, for example, acknowledged that while technology was part of the change, cultural change also drove change in mass media. For example, in America the growth of cities and immigration affected mass media, as did the growth in the idea of media ethics. And others, such as press critic Walter Lippmann, went further than that. He actually did not consider the idea of technological change as driving journalism. Others gave less emphasis to technology, and more to cultural factors.

The most famous development in the idea of technology and its relationship to media perhaps dates from the 1960s, and the most famous person perhaps is Marshall McLuhan. Of course, McLuhan in his 1964 book emphasized, “the medium is the message.” He discounted the idea of studying content, and instead emphasized studying how the medium of communication affects society. His idea was that the content of, say, books and newspapers doesn’t matter. It’s the environments that these media create, becoming extensions of human beings. He uses a lightbulb analogy. A lightbulb doesn’t carry content. But it creates space, space at night that otherwise would be in darkness. “A lightbulb,” he said, “creates environment by its mere presence.”

This would suggest to us that not only does technology drive mass media, it is most important thing worth studying. We call the idea established by McLuhan “media ecology.” In 1970 Neil Postman, another famous proponent, established a program for media ecology at New York University. He intended students to study “how media of communication affect human perception, understanding, feeling and value.” He explained that the word “ecology” suggests the study of environments: “their structure, content and influence on people.”

James Carey also famously studied this idea of the technology being the determining factor. He studied the impact of the telegraph. He considered how it affected people’s concepts of space and time. People, for example, no longer had to wait for news to arrive on ship or stagecoach. It could arrive at any time, instantaneously. The photograph and its instantaneous recording of life in a visual way arrived at about the same time as the telegraph, in my opinion also changing how people viewed their world. Just like the telegraph, as Carey noted, the photograph could change our idea of what was nearby and what was remote. The distance between two points did not matter anymore. It was the technology, then, that drove cultural change, “the medium is the message.”

But Carey was not absolutely convinced that technology should take such a place of overwhelming power in communication study. He said technology was simply a tool. In the 1970s other scholars began to further question the idea that the medium was the all-powerful force in communication influence. This idea of technological determinism, I guess we can call it, was questioned by scholars such as Raymond Williams. Wait a minute, he said—if the medium really is the message, well, then, what do humans have left to say? He rejected the idea that any form of technology predetermines response of society. He suggested scholars need to evaluate technology within the broader context of social, cultural, and economic areas.

Michael Shudson in the late 1970s completely rejected the idea that technology determined news development, taking a look at the growth of the Penny Press in the early 1830s. He said the connections between technological development, such as new printing presses, railroads or coming telegraphic communication, certainly are worth noting. But they are not determinant. He said technological changes advanced mass circulation press, but, he said “they do not explain it. . . .while (technological change) made mass circulation newspapers possible, it did not make them necessary or inevitable.” In fact, noted other authors, the present mass media practitioners tend to actually resist new technology, and cling to the old ways. Technology, these more recent historians emphasized, is only one element in a variety of social and economic forces explaining change.

A recent author named Mark Knight in 2005 considered this by looking at the technology behind so-called “new media” of the 1600s to 1700s in Britain. He acknowledged the growth of the printing press in the production of new pamphlets and newspapers, but also saw a combination of relaxation of censorship and government licensing of printers, political unrest, and urbanization. In other words, technological change makes media change possible, but not inevitable.

Today, it seems, the idea of technology and communication is at the forefront of our minds. We are more and more personally connected to our communication technology in a variety of ways, and the globalization of communication and information production has become ubiquitous in personal ways not available in the past. How does this technology affect our society and culture, at home and abroad? This is a question scholars and people on the street often ask. Today we can see the power of individuals to employ mass media in a way not before available. One of the internet’s inventors, Vint Cerf, wrote in 2002 that the internet “offers a global megaphone for voices that otherwise might be heard only feebly, if at all. It invites and facilitates multiple points of view and dialogue in ways unimplementable by the traditional, one-way media.”

I think most of us see that in action using social media such as Facebook or Twitter. And we know it’s not only for the good of communication.

We see some scholars talking about the internet in the same exalted way that others have talked about previous technological revolutions in communication. It is, they say, one of the most remarkable things human minds have ever made. It transformed the

communication environment, just as radio and television did, but even more, because it made intellectual output a two-way process. Author Dan Millman, who writes self-help books, said, “I have almost religious zeal for the internet, which is, for me, the nervous system of mother earth.”

Rupert Murdoch said, “The internet has been the most fundamental change during my lifetime and for hundreds of years.” Some have called it the biggest thing since the invention of writing.

But let us recall those who argue that interpretations of communication that center on technology don't necessarily tell the whole story. If you do believe technology is the main determiner of the nature of media and communication, we will call you a technological determinist. On the other side are those who argue communication and its changes take place not because of those technologies, but because of social, cultural, economic and political forces of society—explained by trends and social needs. Then there are those in the middle, who presume technology helps explain change, but does not necessarily determine change.

But the idea of change itself is central to the process of communication throughout history. We have the cultural heritage that extends our control of the world, and ourselves, through language, and ways to communicate with that language. Strangely enough, for most of human history the big problem was that we just were not able to get enough information, did not have enough sources of that information, and did not have enough media to get that information to people. Today, of course, it's the opposite; we are challenged by too much information from too many sources channeled through too many media.

Of course, we have to adapt to that, adapt to change. But this is exactly why humans have done so well throughout history; we haven't been the strongest, maybe at some point not even the most intelligent. But we were adaptable.

Technology has changed as it has served to extend our senses to help us communicate. Consider things like the computer, newspaper, photography, television, printing press, or other technologies as a way to extend our sense of sight and hearing. These allow us to see beyond the here and now. Our technology allows us to reach through both space and time beyond the ability to see or hear based on what nature has given to our senses. So if we consider both the evolutions and revolutions of technology in communication, it has always involved ways for us to extend our sense of sight and hearing to allow a greater extent of communication with other people. That is both between other people and among other people, two individuals or groups. Humans are social and so rely on survival by hanging in groups, and so communication is essential to survival. It used to be hard to establish that communication. Now it's hard to find a way to control it. Our challenge today seems not to find a way to build the fire hydrant, but a way to hold our paper cup in front of its full blast and still come away with an actual, usable, cup of water. Information is the fire hydrant.