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Brett Oppegaard

## **From orality to newspaper wire services: Conceptualizing a medium**

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### **Abstract**

Technologies have been aiding human communication for millennia, with the sign language of gesturing leading to layers upon layers of other communicative innovations, such as the alphabet, writing, and the telegraphic transmissions common today via digital media delivery systems. Connecting cave paintings to wearable computing is the concept of the medium, in which the media form creates a setting, or environment, in which communication takes place. That environment shapes, encourages, promotes, constricts, and restricts the messages in ways that affect cultural and social behaviors, meaning the medium – through which communication takes place – also is an important part of the message.

**Keywords:** Medium Theory, Medium Specificity, Technological Determinism, mass media history.

Imagine entering a foreign land, disassociated from any familiar languages, customs, and cultures. To communicate, you might revert to infantile pointing and pantomime, as a way to somehow share your thoughts with others. In software development parlance, that was the beta 1.0 version of human communication in ancient times, as body language and gesturing gradually grew into the social-cognitive and social-motivational platforms upon which conventional linguistic systems could be cooperatively constructed (Tomasello 2008). While precise dates are in dispute, humans have existed as a distinct species for about 2 million years. Yet they only started speaking to each other about 100,000 years ago, possibly inspired by birdsong and other sounds in nature (Aitchison 1996; Stephens 2007; Changizi 2011). In context, the relatively recent surge of invention and innovation and expansion in human communication systems seems even more stunning. To put a point on it, mass communication technologies mostly have been created and developed within the past 200 years, or, in the broader sense of time, 0.1% of human history. From that perspective, the World Wide Web and social media platforms, such as Twitter and Facebook, are merely the latest of the slew of newcomers, including radio, television, and film. How did people generally communicate before the 1850s, when newspaper wire services —as a harbinger of things to come— started competing for audiences on an international scale? This chapter will focus upon such historical and theoretical foundations, and the progression of technologies that led us to the penny press and the emergence of a massive commercial marketplace for communication.

The evolution from gesturing and grunting to the expression and interpretation of complicated speech and symbol patterns demonstrates humankind's continual integration of technologies into the communication process, as a way to enhance our natural senses and abilities. While we might think of talking and writing as "natural", they both actually are complex learned behaviors, enhanced by the technological innovations and refinements of language, and, at an even finer level, a tool called an alphabet, which, in the English culture allows users to create any word at all, about any thought at all, from just 26 distinct symbols, used in various combinations (Sapir 2004; Stephens 2007). Language and all other communication technologies have been built specifically to expand or increase human faculties, either psychic or physical, Canadian media theorist Marshall McLuhan (1967) contended. He wrote that the book, for example, could be viewed as an extension of the eye and electric circuitry as an extension of the nervous system. The evolution from an entirely oral — and generally interpersonal — culture to a culture blending orality and mass media messages in many digital and

analog forms has increased the complexity of theoretical understandings in the field, in part through recognition of the ever-expanding role of communication media.

## **1. Medium Theory**

A broad paradigm to provide grounding in this mediated world is “medium theory,” in which each medium is defined as a specific type of setting or environment that has relatively fixed characteristics, which influence communication in a particular manner, regardless of the choice of content elements and the particular manipulation of production variables. These unique features separate the medium from other media forms as well as from face-to-face interaction (Meyrowitz 1998). Think, for example, about how a written document differs from a face-to-face conversation. A written document has many attractive affordances. It can capture thoughts precisely in a systematic way and place those in a durable package that can be delivered over long distances, without the message changing. It requires literacy, though, to unlock those thoughts, and a written document remains silent, no matter how much the recipient might want to question it. This document also leaves behind on its journey a wealth of rich sensory information that typically gets conveyed when people talk to each other, including the body language of the participants, plus the tone, pitch, and intensity of their voices. When people began writing about ideas, instead of only talking about them, some hailed that emerging form of human expression while others raised questions about what also was being lost in the newfangled process.

Socrates, for example, was recorded as a critic of writing in Plato’s dialogue titled “Phaedrus.” The philosopher, called the “wisest man” in ancient Athens by the Oracle of Delphi, did not write down his thoughts at all and preferred to conduct with other people a dialectic process of inquiry, asking question after question until he felt the issue was fully understood, and any flaws of logic were unveiled, through the experience of speaking and hearing the series of answers. Plato, who was a student of Socrates, and who kept notes of what Socrates tended to say, ironically preserved his teacher’s concerns on this subject in writing, which is how we know about them today. In this account, Socrates relayed the story of Thamus, an Egyptian king, who had an ingenious inventor in his realm named Theuth. Among his many marvelous ideas, Theuth brought to Thamus the concept of “letters.” Theuth explained how valuable these could be for Egyptians, in terms of making them wiser, and enhancing their memories. Instead of celebrating the idea of writing, Thamus criticized it, stating that such a medium would create forgetfulness and a trust in the written word that supersedes trust in a person’s own memories. Writing therefore would appear as a memory but function as reminiscence, and a semblance of truth, rather than truth itself. People who read, rather than gather knowledge through Socratic debate, Thamus argued, will be “hearers of many things” but will have learned, and generally know, nothing. Socrates furthermore compares writing to painting, adding that the creations of the painter have the attitude of life, and yet if you ask them a question, they preserve a solemn silence (Plato 1972: 67-70). His criticisms symbolized the schism created as an oral society transformed into a written one, and, gradually, as that written one expanded into a complex blend of innumerable multimedia channels pervading civilization.

History offers many more examples about how innovations in communication technologies have altered the course of human development. The speed at which communication traveled, for example, was limited to a fast runner’s pace until the Chinese domesticated horses around 3,500 B.C., allowing messengers to travel by horseback (Stephens 2007). Not until thousands of years later, in the 1860s, did the telegraph finally break the tether that communication always had to human transportation. The telegraph not only allowed messages to travel freely within wires at great speeds over vast distances, without a person along as a guide, it also created a new conceptualization of communication, as something that could be transmitted outside of traditional ideas of space and time. That distinction of media messages thought of as transmitted, rather than transported, and operating independently of both humanity and geography, has been exploited by virtually every communication technology since (Carey 1983). It also emphasizes the dilemma of technological determinism. Do we have the ultimate control over our destiny with technologies, mindfully deciding what we use or not, or do technological developments, ambitiously built and unleashed, instead ultimately drive and shape our direction as a species? (Smith and Marx 1994).

## 2. Technological Determinism

Therefore, technology — broadly conceived — could be considered the single most important factor in producing, integrating, and destroying cultural phenomena. Bain (1937) added that the term encompasses all tools, machines, utensils, weapons, instruments, housing, clothing, communicating and transporting devices, and the skills by which we produce and use them. In turn, social institutions, and their so-called non-material concomitants, such as values, morals, manners, wishes, hopes, fears, and attitudes, are directly —and indirectly— dependent upon technology and also mediated by it. As an example, before the development of Johannes Gutenberg's printing press in Europe, in the 15<sup>th</sup> century, few people had direct access to the Bible, primarily just the Catholic clergymen who interpreted its meanings to their flocks. With mass production of the text, though, more people had access, and more questions were asked about the traditional interpretations, and behaviors of pastors, fueling the Protestant Reformation. In that case, and many others, particularly in the past century, the efficacy of technology as a driving force in history is apparent, as a specific innovation appears and causes tremendous change (Smith and Marx 1994).

Yet that determinist perspective also fails to account for the numerous technological flops and failures, some ahead of their time, some just ideas that don't connect with people. If technological determinism could be counted on every time, as a working grand theory, then superior technologies always would be successful the moment they left the inventor's workshop, because they were destined to change us. In practice, though, some great ideas take a long time to gestate in a society; some ideas are adopted by some cultures but not others; and some technological ideas, as great as they might appear to be, never make an impact on humanity. Leonardo da Vinci's trove of inventions and futuristic ideas in the late 1400s and early 1500s, such as flying machines, is a classic example of the envisioning of advanced technologies before a society was ready to adopt them, suggesting that social dynamics and other pragmatic issues, such as the development of production and distribution systems, the availability of raw materials, and the growth of a network of users, complicate matters of technological integration and impact. Lynn White described the situation this way: "A new device merely opens a door; it does not compel one to enter" (White 1964: 28). In relation, the interaction between a technology and the social ecology is unpredictable, even to the creators of it. Frequently, technologies have environmental, social, and human consequences that go far beyond the immediate purposes and practices initially imagined, and many of our technology-related problems arise because of the unforeseen consequences of seemingly benign technologies employed on a massive scale (Kranzberg 1986).

The Apple Newton, as an example, was released in the late 1980s and did not turn out to be a broadly successful mobile device. It might have been a harbinger of the mobile computing age. It might have been just another also-ran in the competition to create a viable mobile device for the masses. It might have been a technological amalgamation that simply was a major technology or two short of being widely useful. It might have suffered from the lack of a larger support network. Many possible reasons exist for its relatively tiny impact on society, despite the prodigious use of such small computers today clearly showing that a latent human need existed. Many years later, Apple also released the iPhone, to much initial acclaim, like with the earlier device, but something significant had changed since the days of the Newton. Maybe that difference was the better integration of improved technologies. Maybe it was the App Store, allowing third-party development. Maybe society broadly had become more accustomed to the mobile idea, after the breakthroughs of the Palm Pilot, the Blackberry, and the iPod. After nearly 20 years of trying, Apple ended up in the right place at the right time with the right technology for phenomenal commercial success. What customers originally envisioned as a handy convergence tool — combining the cellular phone, the personal digital assistant, and the music player — has been that, and more, including causing concerns about new societal issues, such as driving while texting, bullying via social media, and general complicity with the creation of a national surveillance state, problems that simply did not exist on a large scale before commercially viable mobile technologies.

By looking at each technology from a historical and a medium-focused perspective, important parallels begin to form around their emergences. Bain (1937), for example, noted that all human activities are conditioned by biological nature, the physical environment, and technological and other cultural limitations, meaning that there is constant reciprocal interaction between technology and the

other aspects that affect culture, and meaning the implications of technological determinism often can be overstated. An example of such a determinist claim was made by Evans (1979: 13), when he argued of the transformation of world society, “at all levels,” by the computer, in which “the computer revolution will have an overwhelming and comprehensive impact, affecting every being on earth, in every aspect of his or her life.” Has the computer fulfilled that grand prophecy? Are the effects of a computer existing simply from the purposeful navigation of layers of technology (the alphabet, language, the operating system) by humans, in control of the situation, or, in a deterministic sense, did the invention of computers cause society to seismically and subconsciously shift in response?

To begin to untangle this issue in a technological context, consider that the word medium is derived from the Latin term “medius,” which roughly translates to middle, as in something in the middle, like what lies between the sender and receiver of a message. Theorists initially assumed that the content of a message was much more important than the form in which it was delivered, a perspective known as “media transparency.” Yet “media richness” theorists, inspired by the new media generated through computers, typically define media through its material hardware and software features, or its functional affordances and constraints, instead of focusing upon social functions and locations (Danowski, 1993).

### **3. Living a mediated life**

Understanding how media work to create our environments, and how each medium works with others within those situations, is critical to comprehending and navigating contemporary society, because most of our experiences today are mediated. At the origins of humanity, most of our knowledge came directly from connections to natural sensations. But each new layer of mediation that we have created over the millennia — from language to writing to the printing press to the World Wide Web — has added swirling and overlapping social and cultural layers of information, contributing to our knowledge, too. Think for a moment about all of the information that you process in a day, from the time you wake up, until the time you go to sleep at night. How much of that are you directly accessing from observations of natural sources, through independent investigations? How much of that is being provided to you by someone else through a form of mediation? This mediated environment includes not only the traditional mass media, such as newspapers, radio, television, etc., but also the graphics on your cereal box, the road signs you pass by, the company memos, the water cooler conversations, the staff meetings, the executive summaries, the spreadsheets, the voice mail, the social media feeds, and so on. Bandura (2001: 2-3) stated that human self-development, adaptation, and change are embedded in such social systems, and people are “self-organizing, proactive, self-reflecting, and self-regulating, not just reactive organisms shaped and shepherded by environmental events or inner forces.” Through interactions with our symbols, such as written language, people can process and transform transient experiences into cognitive models that serve as guides for judgment and action, giving meaning, form and continuity to our experiences. In short, we learn our cultures and our histories from our social interactions, and, in the heavily mediated environment of contemporary society, those interactions often happen through media, especially through mass media. The ability to learn socially, through symbols, is part of what makes humanity special, as Bandura (2001: 5) notes, “If knowledge and skills could be acquired only by response consequences, human development would be greatly retarded, not to mention exceedingly tedious and hazardous.” By learning socially, through symbols, we quickly can learn how others have fared in similar or related situations and then use that information to shape our responses in the moment, or even adapt larger life philosophies.

How else does being immersed in all of this mediation affect us? That question leads to some of the other most fundamental communication concerns. To foreshadow for a moment, when this field was forming, in the early to mid-1900s, scholars initially were magnetized to the pull of a Mass Society Theory, which could conceptualize the idea of a single mediated message acting as a universal and unifying force in the world, affecting pretty much everyone in the same way. The metaphors for the Mass Society message included a “magic bullet” or “hypodermic needle,” implying that the media message would enter our collective systems and course through the masses to a uniform effect (Webster and Phalen 2013). Scholars at Princeton and Columbia, though, among them Paul Lazarsfeld (1941), quickly began forming contrary theories, known as “limited effects” theories,

that generally note how different people respond in different ways to any single media message and that to understand the masses, we need to first understand the individual as a segment of the masses. The mixture in just one person of many simultaneous messages and competing motivations to respond to them, as well as a lifelong history of managing such messages, complicates communication research on an individual level and on a societal level. To try to comprehend what really happens when people communicate, scholars apply various methodologies through theoretical frameworks based in the social sciences and humanities. They typically try to peel apart the layers of the situation, through reductionism, in order to find a focus for the study and to set the parameters of the specific inquiry. One of those approaches is to examine communication not by a close analysis of the content being transmitted but by isolating the medium, as part of the puzzle, and thinking about what can be attributed as its effects.

#### **4. Medium specificity**

Under the general label of “medium specificity” theories, these lines of thought further extend discussions about the importance of the medium, focusing on ideas that different media have “essential” and unique characteristics that form the core of how they can – and should be – used. A medium-specificity approach can be used to examine the unstable interface among ideology, technology, and desires, and it also can be used to acknowledge that there are identifiable differences between one medium and another while establishing the broader assemblage aspects of each medium, per Gilles Deleuze and Felix Guattari, as a cultural artifact, with a complex and intertwined lineage (Maras and Sutton 2000). When a new medium emerges, historical and cultural influences, in hybrid understandings, come along as well, as older media gets blended into new forms, in a process Bolter and Grusin (1998) describe as remediation. Richardson (2011) connects the concepts of remediation and convergence (Jenkins 2006) through Medium Specificity by noting that each interface, even when experiencing different kinds of services and content within a single apparatus, such as a mobile device, can be interpreted in terms of specific and differential effects, each demanding a particular mode of embodied interaction. In this process, what emerges is not a single all-purpose device but a seemingly endless iteration of handsets with varying capabilities and design features, each prioritizing a specific technosomatic arrangement. Studying communication technologies from such a medium-focused perspective therefore might make the research design challenges greater than those focused on particular media messages, but, potentially, the rewards are higher, too, in terms of transferability to other contexts and in terms of deeper understandings about evolving changes in human social interactions (Meyrowitz 1997).

Meyrowitz (2009) contended that a focus should be upon the new means of communication, which afforded new possibilities, and that those new forms, which could be creatively exploited for both old and new purposes, could help people to actively develop new content and new interactions that match the personalities and constraints of the new media. One of the primary considerations in Medium Theory therefore is the type of sensory information that the medium is able to transmit. While content is important, studying content alone does not generate sufficient understanding of the underlying changes in social structures encouraged or enabled by new forms of communication. From this viewpoint, media is a setting, or an environment, for social interaction, and it is examined, on the broadest level, by the ways in which particular characteristics of a medium make it physically, psychologically, and socially different from other media and from face-to-face interaction (Meyrowitz 1997).

#### **5. Early “mediavolutions”**

To ancient people, the concept of leaving artistic marks on cave walls to permanently show imagery from their lives probably was a radical proposition. The earliest known forms of this communicative art, from about 30,000 years ago, primarily involved people using their fingers to rub the three predominately available colors — charcoal (black), an iron-oxide mixture (red), and goethite (yellow) — on limestone walls (Chalmin, et al., 2003; Leroi-Gourhan, 1982). As a medium, in retrospect, cave painting seems relatively simplistic. But to those Paleolithic people, in that time period, the medium was the modern-day equivalent of a wearable computing headset, providing them

with a dramatically new way to see and interpret their world, and to communicate with each other in an unprecedented manner. Someone, somewhere, must have ended up with charcoaled hands, maybe from tending a fire, and happened to touch a cave wall and left a mark. Maybe it was the same person, or an observant and curious companion, who started to play around with the making of marks, inventing different expressive techniques, such as using a charcoaled stick or a handprint instead of a finger. How did that medium open up new opportunities for expression and communication? Gibson (1979) created the term affordances to describe what an environment provided or furnished its inhabitants, for good or ill, relative to each individual. Terrestrial surfaces, for example, can be “climb-on-able, or fall-off-able, or get-underneath-able, or bump-able, relative to the animal,” and a platform that is knee-high to an adult might be neck-high to a child, dramatically altering the dynamic for use” (Gibson 1979: 127-128). Cave painting allowed people to make permanent marks, in an otherwise oral culture, separating ideas from the minds that created them, and leaving those ideas in a public space, for others to encounter, even when the originator no longer was around. These paintings could have provided a visual image, to accompany a story, or had important symbolic and ritualistic connotations. They fundamentally allowed people to communicate in new ways.

A medium, such as cave painting, also has limits, or weaknesses. Norman (1988) called those “constraints,” which can be both natural and cultural. Natural constraints are those physical properties that dictate certain behaviors, such as “physical features — projections, depressions, screwthreads, appendages — that limit relationships to other objects, operations that can be performed to it, what can be attached to it, and so on” (Norman 1988: 55). Cultural constraints are the learned and artificial conventions that govern acceptable behavior in the situation, such as turning screws clockwise to tighten. Both of these types of constraints, in turn, reduce the number of potential alternative actions for each situation. In the cave painting example, the available choices of colors could be considered a constraint. Another one would be the physical limits of the applicator tool, such as the widths of a line that a finger can make, and the lack of portability of the image, the difficulty of accessing the image in the cave, and any cultural restrictions that might have emerged around such access. Examining a medium in such a way reveals its essence, which otherwise can be difficult to describe.

From this medium perspective, each new communication platform emerges with distinct affordances and constraints. The medium also has a lineage, of sorts, with earlier technologies, as some of the characteristics of established forms are carried forward and integrated, at least temporarily, while others are left encased in the earlier iterations. The newspaper, for example, could not exist without human conversations, as a way of sharing information among people, layered underneath the theoretical framework of “news.” Humans had to develop language before they could have conversations, and books and magazines could be considered the older cousins of newspapers, providing the medium with a path to follow until it developed its niche. Newspapers were not the first form to feature written accounts of local happenings, but they evolved, by focusing on their unique technological affordances, to claim a role in mass communication by being an informative and immediate medium while also being relatively cheap to produce and easy to distribute. To put the newspaper in a historical perspective, as a communication technology, consider the importance of these major chronological waypoints identified by Stephens (2007):

- 8,000 BC: Agriculture becomes widespread, and societies start to stabilize in particular places. How does news circulate when civilizations form and grow larger than a small group of family members and friends? Messengers, town criers, smoke signals, and drums, all emerge as forms of communication media to aid the flow and reach of information.
- 3,100 BC: the earliest known writing systems flourish, in Mesopotamia and Egypt; at this point, the symbols represent entire words, not sounds.
- 1,500 BC: the Canaanites develop the first alphabet.
- 443 BC: the first nonfictional account of Western history is written, by Herodotus, focusing upon the wars between Greece and Persia; could be considered an ancestor of news.
- 145 BC: Romans gather daily in the open-air public Forum to hear the latest news about the Republic.
- 59 BC: Julius Caesar creates what could be considered the first newspaper, the *Acta Diurna*, a written posting that describes the daily activities of the Senate.
- 1041 AD: Pi Sheng of China develops a system for printing with moveable type; because of the large number of Chinese characters, though, the system is impractical and unsuccessful.

- 1450 AD: with a much smaller set of characters to manage, through the use of a phonetic alphabet, Johann Gutenberg's letter press allows for mass production of texts; books at first, but, then, centuries later, newspapers.
- 1566 AD: handwritten newssheets circulate in Venice, as a direct ancestor to the modern newspaper.
- 1609 AD: a German creates a weekly printed newspaper, the oldest known publication of its type in Europe.
- 1620 AD: the first English printed newspaper appears, in Amsterdam.
- 1645 AD: a government-sponsored account of the wars with Native Americans is printed in Britain's American colonies.
- 1690 AD: America's first newspaper, "Publick Occurrences Both Forreign and Domestick," is published in Boston; it is shut down by public officials after the first issue.
- 1783 AD: America's first daily newspaper, The Pennsylvania Evening Post, starts publication; its owner, Benjamin Towne, is indicted for treason a few months later.
- 1789 AD: the United States Bill of Rights is approved, ensuring freedom of speech and the press.
- 1798 AD: the Sedition Act makes it a crime to "write, print, utter or publish" criticisms of the U.S. government. The acts are allowed to lapse two years later, when Thomas Jefferson becomes president.
- 1825 AD: the U.S. becomes the world leader in newspaper circulation.
- 1833 AD: the New York Sun starts selling for a penny a copy, attracting a large, working-class audience. Two more successful penny papers, The Philadelphia Public Ledger and the Baltimore Sun, are launched soon afterward.
- 1844 AD: Samuel Morse demonstrates the power of his new telegraph machine.
- 1851 AD: Yet one more penny press newspaper joins the crowded field; this one called The New York Times.

Those sketches of a historical timeline show how much had to happen, and how much time had to pass, in the course of humanity for newspapers, as we know them, to emerge and thrive. As other chapters in this book will document, newspapers now are fading in mainstream societal importance, and digital innovations in communication technology are arising at a much different pace. Yet our understanding of news, and information sharing, has been shaped in significant ways by the development of newspapers, and magazines, and radio and television broadcasting, so when digital news circulates online, traces of those traditions can be found throughout. In addition, many major issues related to communication technology can transcend the individual medium, meaning that comprehension of media issues in general can be improved, too, by applying global and historical perspectives.

A fundamental question every communicator should consider, in every medium, for example, is: Who is the audience for this message? The answer not only matters on an individual level, for completing a desired communication circuit, but it also has larger implications as well. With the newspaper medium, for example, the first publishers, or printers as they were called, in general, were politically inspired activists, not aspiring media tycoons. Just as people today might not know exactly what to do yet with social media as a news medium, the newspaper as a medium also was shrouded at first in mystery. To try to summarize the burgeoning communication industry of his era, Park (1923) described the process of the newspaper becoming a distinct communication medium as one, not wholly rational, guided by many individuals participating without foreseeing what the ultimate product of their labors would be. He added, "No one sought to make it just what it is. ... The type of newspaper that exists is the type that has survived under the conditions of modern life. The men who may be said to have made the modern newspaper — James Gordon Bennett, Charles A. Dana, Joseph Pulitzer, and William Randolph Hearst — are the men who discovered the kind of paper that men and women would read and had the courage to publish it" (Park 1923: 273-274). The struggle to exist as a communication medium, Park said, was the struggle for circulation, or, in essence, mass popularity.

Audiences become attracted to a medium for various reasons, and the rise of the American newspaper was an example of the amalgamation of many diverse technologies —such as the mechanized printing press, Morse Code, the telegraph, the Bill of Rights' expression of fundamental societal freedoms, and advertising-supported business models— generating and morphing into a dynamic new form of communication. When a new medium appears like that, regardless of what that medium is (with the term medium defined very broadly), McLuhan and McLuhan (1988) suggest we ask four critical questions about it. This tetrad of universal effects, functioning within the "laws" of media, can be determined by asking of the medium artifact: 1. What does it enhance? 2. What does it



make obsolete? 3. What does it retrieve that had been obsolesced earlier? And, 4. What does it flip into when pushed to extremes?

From this perspective, a new medium amplifies or intensifies a particular aspect (or aspects) of communication, while simultaneously obsolescing others. In the newspaper example, in the mid-1800s, publishing in that form suddenly became a way to communicate written words immediately to the masses, amplifying both audience reach and timeliness. Public speaking, letter writing, one-on-one conversations, and the use of other communication media of the era, shrank in societal importance when compared to the possibilities of the upstart newspaper industry. In conjunction, newspapers also retrieved and returned to prominence civic discourse about broad public matters and the contestation of authority (Conboy and Steel 2008). At its reversal point, when pushed to its most extreme in the overheated digital era, the newspaper has flipped into a niche publication that operates at a relatively slow speed, and has become generally more attractive to the contemplative and highly educated elite than the masses.

The largest audiences (and the advertisers), in short, have shifted to the faster and more personal digital channels, with this trend indicated by the stock value of, say, the biggest social media companies versus *The New York Times*. Newspapers no longer can compete in speed and mass appeal. U.S. newspapers had risen to prominence through the commercialization of communication media more than 150 years ago, by gathering large audiences through the quick delivery of information. This business model served them well. It also formed the metanarrative for the future of the mass media, when other media forms surpassed their technological advantages.

Before the 1830s, American newspapers generally served political parties and businessmen, both trying to expand their realms of power. In the 1830s and 1840s, ambitious U.S. newspaper publishers, trying to find a commercial market, decided to lower the consumer cost of their daily publications to one penny, thereby making the product financially accessible to most of the country and opening the world of newspapers to the masses. In conjunction, distribution strategies shifted to emphasize populist, and arguably sensational content, creating unprecedented circulations for some adept publications, such as *The New York Sun*, which, in turn, attracted substantial advertising dollars (Emery and Emery 1984; Nerone 1987). As the newspaper craft shifted into a mass-media industry during this era, the growing audiences of the successful penny press publications attracted more and more advertisers, and the advertising dollars provided the resources for publications to attract even larger audiences, creating a business advantage. The evolution of journalism in the mid-1800s, with its emphasis on audience growth, led to – among other innovations – the pursuit of objectivity and the employment of the first professional reporters. A publication that included multiple sides of a story, from a business perspective, could sell it to all of those sides (instead of an audience limited in size by one particular viewpoint). News, in short, became a marketable commodity, and many publishers rushed to find ways to sell more of it to more people (Emery and Emery 1984; Nerone 1987).

Such an emphasis on audience size, in an age of new technologies, such as the railroad and the telegraph, also led to the expansion of circulation zones, or the primary area in which a publication is circulated. As newsgathering power increased, publishers discovered that the larger the circulation zone, the larger the potential audience. This understanding led to another significant source of newspaper expansion in scope and reach, the first wire services, called news agencies. Just like today, being first with the news was highly valuable, and news agencies at first used fast horses, and fast ships, and even carrier pigeons, before latching on to the high-speed transmission capabilities of the telegraph (Zelizer and Allan 2010; Silberstein-Loeb 2014). Exchanging news could be lucrative, and with the telegraph, publishers suddenly could gather and distribute dispatches from long distances away. News agencies, first in France, then in England and Germany, and eventually, as a coalition of New York newspapers (the Associated Press), served as the middle men, collecting interesting stories and selling them to their publisher subscribers, who then distributed the information to their mass audiences (Silberstein-Loeb 2014). All of which increased audience sizes, for those who were first; and increased profits, and increased the scope and scale of the successful news organizations. At this point in mass media history, newspapers had no significant challengers in the news-exchange business. As scale and profitability increased, though, and new communication technologies emerged, people began exploring what else had communication affordances and could amplify our information networks, extending the reach of the telegraph, into interpersonal technologies, such as the telephone, and broadcast media, such as the radio.



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