

One-to-One and One-to-Many Dichotomy: Grand Theories, Periodization, and Historical Narratives in Communication Studies

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Besides other popular dichotomies in communication history, the *one-to-one* and *one-to-many* matrix has been very powerful in the 20th century political, economic, and social imaginary, yet it is overlooked. This article originally aimed to reconstruct a long history and periodization of eras in which one-to-one forms of communication prevailed over one-to-many and vice versa, from Ancient Greece to the digital era. Nevertheless, the evidence has shown that this grand narrative/theory was impractical and, in general, that dichotomies and periodization are often more nuanced ontological concepts than generally expected. Thus, this article turned out to be a “failed” project on the history of grand theories, but still useful for the historiography of communication, proposing a more complex framework to look at technologies as they develop over time.

Keywords: communication history, grand social theory, periodization, conceptual dichotomies, one-to-one, one-to-many

Dichotomies and Periodization in Communication History

Communication scholars often attempt to introduce some kind of order or internal logic into the recursive interplay between the media and society in their mutually constitutive historical progression. In doing so, they frequently create new ontological categories that subsequently serve as lenses for social

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analysis. Yet, Balzac famously noted that humans conceive only God as a trinity; otherwise, our thought is structured in binary ways that foster dichotomies. This simple truth with far-reaching consequences is very clearly reflected in the way we think about media. By now, several generations of scholars have relied on such dichotomies, grounding their grand historical reinterpretations on the ways in which media interact with social life. The work of Harold Innis (1951) is commonly associated with the contrasting influences of time-biased and space-biased media; McLuhan (1964) classified media as hot and cold; Ong (1982) traced social evolution through the prism of orality or literacy; Carey (1969) in one of his earliest works classified media as centripetal and centrifugal; and Turow (1997) talked about society-making and segment-making media.

In general, in the past half-century or so, media theorists made several attempts to contribute to grand social narratives: historical sociological interpretations whose aim was to offer a somehow simplified, yet very compelling conjecture about the causal relationships that shape evolutionary trajectories of large social structures. The very term *grand theory* is attributed to C. Wright Mills (1959), who coined it to critique Parsonian highly abstracted theorizing in which the macro forms of social organization completely subsume everyday individual lived experience. According to Mills, such theories inevitably foster reductionist conceptual language to accomplish their goals. The dichotomies on which they rely frequently lead to periodization, or the attempt to locate pivotal moments in which some new essential aspects of social development suddenly emerge while others vanish. The ultimate purpose of periodization is to establish compelling, often teleological or cyclically structured narratives relying on a sequence of communication eras defined through different technological paradigms.

The intellectual foundation of the Toronto School may be the best example of attempts to couple dichotomies with periodization. Innis (1950) classified historical periods based on the propensity of temporal government structures (empires) to rely on time-biased and space-biased media. McLuhan (1962, 1964) divided human communication history into eye-prevailing and ear-prevailing eras. Similarly, McLuhan's student Walter Ong (1982) argued for a fundamental shift between orality and literacy, which was ushered in by the phonetic alphabet and later challenged by secondary orality attributed to the advent of broadcasting. Carey (1969), Turow (1997), and by extension Anderson (1983) focused on the era of mass communication. Their aim was to ascertain to what extent media institutions within this period were able to foster social integration and at what point they became the forces of individualization, segmentation, and polarization.

Dichotomies and periodization remain popular and are probably also very useful in the undergraduate classroom. They effectively simplify complicated historical narratives and may be used as reflexive tools that allow students and teachers to play in the middle of the continuum between the two ideal-typical extremes. Yet, they may also very easily become ingrained into our thinking, and as such turned into ontological traps that inevitably produce a very distorted image of history. In the first step, they tend to oversimplify social phenomena that are generally complex and riddled with their own internal contradictions; in the second step, they force such phenomena into conceptual categories designed a priori to meet the requirements of communication cycles and eras—and therefore to support the grand narratives.

One-to-One and One-to-Many: The Genesis of the Dichotomy

The one-to-one and one-to-many communication matrix represents one of the most popular, but at the same time also one of the least theoretically scrutinized dichotomies of media studies (Lindqvist, 2011). John Durham Peters (1999) used it for his refreshingly unorthodox reinterpretation of communication history. In his account, Socrates represents the belief that the optimal form of communication is based on a one-to-one dialogue, whereas the Biblical Jesus embodies the idea of a one-to-many model of dissemination as the core principle of human communication. "For Socrates, dialogue between philosopher and pupil is supposed to be one-to-one, interactive, and live, unique and nonreproducible," whereas Jesus of the Synoptic Gospels—as well as the sower in his captivating parable—spreads the seeds of his message uniformly and widely, representing "a receiver-oriented model in which the sender has no control over the harvest" (p. 35).

Just as many other seminal communication concepts and theories, the one-to-one and one-to-many dichotomy is a child of the 20th century and consequently reflects both technological advances and structural feelings of the era. It probably originated in engineering talk of point-to-point wired telephone and radiotelegraphy at the beginning of the 20th century and then entered into the common language of engineers. Shannon (1948) claimed that the "fundamental problem of communication is that of reproducing at one point either exactly or approximately a message selected at another point" (p. 379). Nevertheless, the reason why this dichotomy became so taken for granted is embedded in the technological development that ushered in the term *mass communication*.

The term itself was a linguistic invention of one of the captains of the nascent media industries, David Sarnoff, who unsurprisingly equated mass communication with his own invention—broadcasting. "Instead of communication from, among, or with the masses, it meant communication broadcast outward, from one centralized point to the masses and great audiences" (Simonson, 2010, p. 16). The idea of the masses haunted social psychologists. In 1933, Floyd Allport juxtaposed the terms *one* and *many* in an attempt to reinterpret the collective social behavior in terms of individuals. By the mid-1930s, the expression *mass communication* itself started appearing in scholarly work. In 1935, Malcolm Willey published a paper on the new emerging phenomenon, arguing that the new technologies facilitated a new social environment in which "the size of the audience is almost unlimited, and physical assemblage is no longer essential" (p. 194). By the 1940s, the term became a common currency among scholars. In his presidential address to the American Sociological Society, Wirth (1948) asserted that new technologies enabled one-way dissemination of messages on a scale never seen before. "To the traditional ways of communication . . . we have added in our generation the mass media of communication, consisting of the radio, the motion pictures, and the press" (p. 10).

The rise of mass communication contributed, in the following decade, to the establishment of the dichotomy: Scholars as diverse as Lazarsfeld, Katz, Habermas, Mills, and Wright agreed that one-to-many and one-to-one communication models were "two fundamentally different beasts whose relationship was, at best, one of supplementation or coordination and, at worst, one of suffocation" (Peters & Simonson 2004, pp. 9–10). Outside academia, the language of one-to-many and one-to-one entered the vocabulary of politicians, journalists, entrepreneurs, and social scientists who framed one-to-one or one-to-many

media as if they were inherently democratic or autocratic, vertical or horizontal, progressive or reactionary.

The original goal of this study was to examine to what extent it is useful to use the ontological lenses of the one-to-one and one-to-many dichotomy and its potential to construct a grand theory that would reflect the role played by the evolving communication technologies in the context of Western civilization. This theory aimed to “copy” the mentioned historical reconstructions and to add another layer (one-to-one and one-to-many) to other previous grand narratives based on compelling dichotomies and long-term periodization. Our aim was to retrace empirical sources and secondary literature that could show us the presence of one-to-one and one-to-many communications in long historical timespans—from classical Athens to the digital era. The original research project aimed at the reconstruction of a long history of this dichotomy, leading to a subsequent periodization of eras in which one-to-one prevailed over one-to-many and vice versa. However, in the end, things turned out to be more complex than we expected. The empirical evidence led us to conclude that one-to-many forms of communications could not be completely distinguished from the one-to-one, and it is difficult to retrace “prevailing eras” in any of the considered periods. This article is a story of an historical research that transformed itself over time—and whose results are significantly different from what we expected at the beginning.

One-to-One and One-to-Many in Communication History

Public Communication in the Classical Athens

By the time of Socrates (469–399 BCE), Classical Greek society already reluctantly accepted writing as a new tool of expression, but it was oral delivery that still constituted the backbone of its communication system. There were two or three public spaces that exemplify this form of information exchange in Classical Athens, with varying emphasis on point-to-point and one-to-many patterns of interaction.

The heart of public communication in Athens was its central square, the Agora. It was the place toward which the Athenian population gravitated every day. Millett (1998) argues that in the Agora “the concentration of activities maximized the chances of making unplanned meetings” (pp. 215–216), a notion that historically helped to shape its image as a normative democratic model of one-to-one communication exchange that relied on the contextually richest form of face-to-face interaction. In Plato’s (1967–1968) eyes, the constant mingling of Athenian citizens in the Agora was the best way of ensuring that they became acquainted with each other at a very intimate level, arguing that “nothing is of more benefit to the State than this mutual acquaintance” (*Laws* 5.738d–e). The life of an honest citizen was one that was spent in public (cf. Demosthenes, 1926–1949, *Against Aristogeiton* 21.51–52).

In the Agora, all such intimate interactions happened under the auspices of the statue of Hermes, messenger of the gods, but also herald and the overall promoter of any form of exchange. And the institution of the public herald was arguably the most ancient form of one-to-many communication in Athens. It was the herald who mediated information between various levels of governing bodies and the overall population. Homer’s *Iliad* (1989) contains the earliest known notion of a legendary Greek herald, Stentor, “whose cry was as loud as that of fifty men together” (2.5.663). In the Agora, the herald

declaimed the most important news of the day that the government wanted to share with the public. As a symbol, the herald played such a key role in public communication that Aristotle in *Politics* (1952, 7.1326b) limited the size of a constitutional republic by the reach of his voice.

There is evidence that Greek heralds often carried out or accompanied diplomatic missions by delivering important messages both within the state and abroad (cf. Demosthenes, 1926–1949, *On the Crown* 163–168). Original Greek texts for the most part strictly distinguished between a simple messenger (ἄγγελος—aggelos/angelos) who served as a conduit, carrying a written letter and thus acted in a point-to-point manner, and the socially more valued role of a herald (κῆρυξ—kérux) who promulgated the message publicly in the one-to-many manner (Thayer, 2007).

The second essential venue that fostered communication in Athens was the Pnyx, the place of popular assemblies that could have accommodated at least 6,000 people listening to the speeches delivered in a one-to-many fashion from *bema*, an elevated platform (Hansen, 1999). In many ways, the Pnyx represented an extension of the Agora and its public function. Demosthenes (1926–1949, *Against Timocrates* 24.23) tells us that any new legislative proposal in Athens was first supposed to be “mass communicated” through an inscription on a white board that was posted in the Agora, where it was subsequently scrutinized in one-to-one discussion, and only then deliberated and voted on in the Pnyx. Around 300 BCE, meetings of the Athenian assembly were moved from the Pnyx to the Theatre of Dionysus, a theatrical stage whose social function was to challenge contemporary ethical, cultural, or political issues, serving as a mirror to the entire society (Hansen, 1999). The Pnyx’s assembly and the audience that attended the theatrical performances were almost identical both in size and in social structure.

Although it may seem that the mediation was dominated by rhetors and heralds in the case of the assembly and by actors in the case of the theater, Greek public communication had deliberately built in elements that fostered the dialogic involvement of the audience, which was expected to be all but passive. Such elements could be exemplified by the position of the chorus in the case of the theater, which was assigned the ambiguous role of a mediator between the actors and the audience, and therefore emphasized the complementary functions of one-to-many and many-to-many communication models (Arnott, 1989).

Republican Rome

The social world of Republican Rome was, to a large extent, a natural extension of Greek cultural and political tradition (Manuwald, 2011). The Greek influence was clearly present in the organization of Roman public life. At its center was the Roman Forum, which generally fulfilled the same social and political function as the Athenian Agora. One of its dominants that may be seen as the epitome of one-to-many communication was the *rostrum*, an elevated podium that was used by public heralds for their regular announcements, as well as by public figures who used it to deliver important speeches (Aicher, 2004).

The *rostrum* was part of a space called the *comitium*, used for popular assemblies and adorned by tablets containing Rome's republican constitution (Aicher, 2004). In this public arena, the daily acts—*acta diurna*, a written compilation of daily news—was regularly “published” either orally by public herald or through the public display of a hand-written copy (Suetonius, *Augustus* 49–50). It first emerged with the end of the republican era and the advent of the Empire, and as such may be an indication of the need by a centralized power to disseminate its own version of the daily news to a wide audience in a one-to-many fashion.

Indeed, Tacitus (2011) informs us that the *acta diurna* were “read attentively in the provinces” (*Annales* 16.22), being disseminated throughout the advanced system of imperial roads and the postal system. Yet, the Roman imperial post was opened almost exclusively only to the ruling elites. Instead of fostering the intimacy of one-to-one private exchange, it was originally conceived to satisfy mainly the bureaucratic and military needs of the Empire, conveying the exchange of intelligence between the ruling center and its provinces (cf. Suetonius, *Augustus* 49–50).

Finally, the theater had quite a different role in the two cultures. Manuwald (2011) points out that although Romans originally adopted from the Greeks the term *théatron* (a place for watching), the constitutive feature of their own theatrical experience started shifting away from the auditorium and was increasingly embodied in the stage—*scaena* or *proscenium*. Therefore, whereas the Greek tradition emphasized the audience that was invited to actively participate in the play, the emerging Latin terminology that underscored the central position of the stage may be considered an early allusion to the one-to-many communication concept. Alas, new forms of popular Roman amusements increasingly emphasized passive audiences, which led to the increasing depoliticization of the popular masses. The expression *bread and circuses* exemplifies how Roman theaters gradually undercut socially relevant forms of public entertainment in favor of pure amusement and diversion (cf. Juvenal and Persius, 1965, *Satires* 10.80).

Renaissance Rediscovery of Classical Heritage

The material culture of the Renaissance city-state was a direct continuation of the medieval urban movement captured by Pirenne (1956). Its public sphere was centered around elected representative bodies and was animated by the voice of the herald; extensive trade and information exchange networks of merchants constituted its economic backbone; and its spiritual experience was shaped by religious plays and pageants, as well as sermons delivered from church pulpits. But ideologically, the Renaissance rested on the full reclamation of Classical Greek and Roman cultural and political heritage. This trend was significantly enhanced by the development of new technologies, such as print and paper manufacturing, but it was further reinforced also by the emergence of new communication networks such as the first genuinely public postal system that had roots in late 1400s Italy.

As an aesthetic movement, the Renaissance was clearly bound to Florence. But as a political movement, it resonated mainly in the civic culture of the Republic of Venice where, after the fall of Constantinople in 1453, many educated Greeks sought refuge, bringing with them to exile their precious collections of ancient manuscripts. Subsequently, Venice became one of the most prominent centers of

printing, which enabled ancient knowledge to be disseminated around the Western world (Geanakoplos, 1962). The printing press was arguably one of the historically most relevant technologies that changed the nature of one-to-many communication in a substantial way. The audience no longer had to be gathered at the same time in the same place to share the message. Yet, as the example of chained books vaguely suggests, there were some authoritarian environments that tried to curb this newly acquired freedom (cf. Eisenstein, 1983).

At the heart of the constitutional arrangement of republican Venice was Piazza San Marco, a public square with a special area adjacent to the Ducal Palace and flanked by loggias—called the Piazzetta or Broglio—where nobles with full-fledged voting rights were encouraged to mingle daily in a one-to-one manner and to establish intimate bonds among themselves. The Venetians believed that to defend the Republic's interest, they had "to search out the secrets of the universe, sending one's mind in an instant to every single part of the world" (in Chambers & Pullan, 1992, p. 271).

Consequently, in the second half of the 15th century, Venetians pioneered the earliest permanent lay diplomatic system in Europe. Their ambassadors stationed all around the known world pursued one principal task: to write minute reports about any developments that may have influenced Venetian interests (cf. Infelise, 2002). They were essentially reporters working for a publicly funded news-gathering agency represented by the state. Once a week, the elected officials prepared a summary of the most important international developments that was read aloud in one-to-many fashion to all nobles with voting rights gathered during the regular Sunday meetings of the Great Council (cf. Sanudo, 1879–1903). They listened in absolute silence—and for the most part passively—to such reports read aloud from the central stage (Finlay, 1980).

The news that the government recognized as suitable for a wider popular audience was delivered at least once a day—at the usual time and with the sound of trumpets—by the public herald in the two focal points of town: Piazza San Marco, the center of civic life, and the Rialto, the hub of the economic activities (cf. Sanudo, 1879–1903). In the meantime, the merchant class, which congregated in the Rialto, mastered its own alternative news-gathering system, an indispensable part of doing business with the remote parts of the world.

Around 1500, Venetian merchant-chronicler Priuli started distinguishing between the different sources of information he recorded in his diaries. He still attributed most of it mainly to private merchant or official diplomatic letters (*lettere*), but at some point the term *avixi/avisi/avvisi* started appearing with increased frequency in his texts. Infelise (2002) speculates that *avvisi* were the earliest attempts to copy and edit the information gathered through various government and merchant channels with the clear aim to sell it for profit. Some *avvisi* were mass-produced and sold cheaply; others were compiled only for a very narrow circle of wealthy merchants and diplomats who were able to afford the exorbitant subscription costs.

In any case, the private one-to-one communication started gradually blurring lines with the one-to-many model. This transition was extremely slow and it took about a century for the first regularly printed newspapers to emerge, mainly because the regular postal service that emerged in Italy at the end

of the 15th century and soon spread through Europe enabled the sustainable publication of periodical printed newspapers (Weber, 2006). This is not surprising because the postal systems simply guaranteed their publishers a regular supply of news stories that were of interest to wide audiences (Behringer, 2006).

The earliest known company of certified public postal couriers in Venice was established in the 1490s (Foppolo, 2001). It exemplified a trend that within decades enabled the emergence of a genuinely Pan-European republic of letters. Yet, similar to the letters of antiquity and the medieval period, even “private letters” of the Renaissance were often written with a much wider audience in mind than the immediate addressee (Morello & Morrison, 2007). During their lifetime, Italian humanists frequently read publicly and circulated copies of their letters, and often even published edited collections of their own correspondence with other prominent persons (cf. Buttler, 2004). Again, such epistolary letters blurred the lines between one-to-one and one-to-many communication.

The major spectacles of the Renaissance were civic and religious festivals. For example, the ratification of the Holy League in 1495 was simultaneously published in the capitals of all participating states, accompanied by massive public festivities (Priuli, 1912–1938, 1.154). The timing was intentionally synchronized with major religious events, and the ceremonial publications exploited a whole range of religious and political symbols to address the illiterate segments of the audiences (cf. Sanudo, 1879–1903, 13.130–144).

The last important one-to-many medium of the Renaissance was the church. The church bells themselves can be seen as the earliest broadcasting systems that synchronized the life of the city. Almost every Venetian square had its own tower whose bells supplied order and rhythm to the daily activities of the neighborhood, but the Campanile in Piazza San Marco dominated all, bringing the bells of each urban quarter into one unison choir (cf. Sanudo, 1992). Equally important was the role of Venetian church pulpits, which were used by parish priests to implement practical policies or to reinforce the overall ideological message of the state, but at times were also used by itinerant preachers to spread their messages from town to town (cf. Priuli, 1912–1938, 2.396). Churches with their elaborate architecture served as loudspeakers: Their excellent acoustics made it possible for a large crowd to listen comfortably to the message delivered in one-to-many fashion.

The World of Habermasian Coffeehouses in London

The English Revolution (1640–1660) finally established print as the dominant medium in the diffusion of information (Zaret, 2000). In the aftermath of Restoration, the Licensing Act of 1662 temporarily stalled its early boom, but the legislation finally lapsed in 1695. Consequently, in the span of just a few years, London was flooded with free, uncensored newspapers. Periodical press was read and discussed in the city’s coffeehouses and recursively fed off of the gossip produced in such venues. At the same time, its publishers unabashedly copied information from the competing newspapers (cf. Downie, 1979). The resulting communication pattern resembled an echo chamber—not unlike the modern Internet—rather than a linear information flow associated later with the newspaper. By the end of the

century, the reading of morning newspapers became a ritualized communicative action that, according to Hegel (2002), gradually replaced morning prayer.

At the same time, a dramatically different model of periodicals and newspapers appeared in France. The absolute monarchies of Louis XIII and XIV needed new tools of propaganda and the official royal newspapers became crucial in this scheme. The *Journal des savans*, the *Gazette de France*, or the *Mercure gallant*, "invented" in the 17th century by early spin doctors such as Theofraste Renodaut and Cardinal Richelieu, aimed to provide His Majesty's subjects with a one-to-many, controlled, and regular flow of information on a national scale that promoted an idealized image of the monarchy (Burke, 1992).

Habermas (1989) famously argued that the 1700s London coffeehouses became community hubs that fostered public discussion, although his critics contended that such discussion was often driven by other than just the aim for the public good, and its participants included a much wider range than just members of the idealized bourgeoisie (Kittler, 2013). Macky (1714, p. 208) estimated "by modest computation" about 8,000 coffeehouses in London—surely an inflated number—but it attests to their diffusion and popularity. A typical Englishman, regardless of class, was known for an insatiable appetite for news; he was "a great news monger, and all public reports must occur to his knowledge, for his business lies most in coffee houses, and the greatest of his diversions is in reading the newspapers" (Ward, 1703, p. 186).

Consequently, a typical coffeehouse boasted foreign and domestic journals covering issues important to merchants, but also "papers of morality and party disputes" (Macky, 1714, p. 109). Even groups of poor London shoeblacks would customarily purchase a farthing paper, and one or two of them who were literate would read the news out loud to their fellows in a coffeehouse (De Saussure, 1995). It was the blend of one-to-one conversation at every social level with the one-to-many communication model represented by the newspaper that made coffeehouses so special from the communication history perspective.

Jefferson's Dream: The Nation as an Imagined Community

The early British colonial culture of North America emulated many cultural customs of the motherland, and coffeehouses soon became important institutions in early colonial cities. Because of the fragmented nature of colonial geography, it was the development of the postal service that played an absolute essential role in the long-distance exchange of information in North America. Many publishers were also local postmasters and the term *post* in the newspaper's nameplate was the best guarantee of its reliability and freshness (Kielbowicz, 1989).

Early American newspapers were filled almost exclusively with news from Europe and from other colonies, whereas stories and rumors generated locally were spread by word of mouth before the publishers set them to print. Benjamin Franklin (1739) summarized these news-cycle dynamics in a poem "The Spreading of News." The first cycle was tied to the one-to-one exchange and originated as gossip on the streets of the city that ended up being discussed in taverns; the second cycle followed one-to-many logic and was tied to the arrival of the post stage that brought several copies of the newspapers printed in

neighboring provincial centers, but especially to the mail-carrying packet ships from Britain that supplied Franklin's *Gazette* with international news.

Among the founding fathers, mainly Thomas Jefferson and James Madison were aware of the geographic limits that classical philosophy imposed on the republic. Whereas Madison's views clearly reflected the positions of an elitist representative democrat, Jefferson (1984) promoted a bottom-up political structure of a ward republic based on local participatory consultation. Yet, even Jefferson's vision was somehow conflicted because his local communities were ultimately animated "thro' the channel of the public papers" (p. 880). The third president liked to use the metaphor of cement in his correspondence, emphasizing the importance of building U.S. infrastructure that would tie together his new republic of farms and small towns, one that under his leadership began expanding on a continental scale.

By 1801, the United States had 900 post offices and 21,000 miles of post roads (Kielbowicz, 1989). However, despite several attempts to launch national newspapers able to simultaneously reach the entire country in a one-to-many manner, the political power of American localism was too strong and still prevailed (John, 1995). The U.S. national media landscape only started to take shape in the mid-19th century, mainly due to the spread of mass-circulation newspapers and the rise of magazines that were fostered by the further development of the telegraph and railroad.

The Victorian Era and Its Legacy: Electricity, Telecommunications, and Broadcasting

The Victorian era (1839–1901) gave birth to several important technological advancements, including the electric telegraph, gramophone, telephone, cinema, and the wireless. These basic technologies that had the ability to transmit electric signals over vast spaces or to preserve sounds or images in time later generated other technologies that combined such elementary features.

The electric telegraph was the first important Victorian technology conceived as a point-to-point medium, used at the peak of the Colonial era by governments and armies to gain control over large territories (Winseck & Pike, 2007). It also served economic and social purposes, such as the regulation of the stock markets and railway networks (Beniger, 1986). As of the 1850s, the telegraph gradually became the backbone of the newspaper industry too. By fostering the development of press agencies, it restructured the coverage of news (Blondheim, 1994). To spread the message, the newspaper—just like the radio and television one century later—had to first receive and edit the information through one-to-one networks of communication. In other words, the symbiosis between the newspaper and telegraph is another good illustration that one-to-many media and point-to-point communication technologies are intertwined and very often one relies on the other.

The history of the gramophone reveals similar tendencies. The gramophone did to sound what newspapers and books did to the written word: The same content, first recorded on aluminum cylinders and later on vinyl discs, was made available to millions of people who did not know each other and lived far away (Gitelman, 1999). Yet, it was the one-to-many power of radio that broadcasted the recorded sound simultaneously to millions of households, creating what various authors have called *approximative*

or *despatialized simultaneity*: a technologically mediated social interaction that was fundamentally different from any previous man-made phenomena (Thompson, 1995).²

Cinema had to undergo a more complicated evolutionary journey until it became a classical one-to-many mass medium. Conceptually outlined in 1888, Edison's kinetoscope—a projection box that allowed one person at the time to watch a short movie—conquered the penny arcades of New York in the early 1890s. But in 1895, the Lumière brothers patented an alternative system in Lyon, France. Their *cinématographe* projected images on screen in one-to-many fashion, which made cinema a collective medium for the masses (Israel, 1998).

Similarly to the history of the cinema, the telephone also has an alternative history, originally conceived as either a point-to-point or one-to-many medium. A well-known example of this trend is represented by the circular telephone introduced in Paris in 1881 (almost simultaneously with the point-to-point telephone). Under different names, it subsequently appeared in many metropolitan areas from Budapest to London, Rome, Milan, and Newark (Balbi, 2010). The goal of the circular telephone was to distribute spoken word and music to subscribers' homes and to public places where it was listened to in a collective manner via headsets. It followed a regular schedule that already hints at the crystallization of the most elementary musical, literary, and news genres.

The circular telephone was *de facto* a radio before the radio, with a signal diffused by wires. Indeed, in many cases, the first wireless radio inherited the staff, genres, and schedules developed previously by the circular telephone. In totalitarian states such as Austro-Hungarian or Russian Empires (and later many other countries of the former Soviet bloc), where the establishments viewed the point-to-point telephone with suspicion and intentionally hampered its development, the wire radio thrived up until the 1990s. It was favored by their governments because it allowed them to exercise absolute control over the message and its distribution (Briggs, 1977).

Up until the mid-1910s, wireless technology itself was associated more with the point-to-point transmission model, and was seen as a mere next step in the development of wire telegraphy. It was not by chance that the wireless was imagined as a powerful competitor to underwater cable companies and, instead of exploring its one-to-many potential, Marconi spent almost two decades trying to solve the most annoying "problem" of wireless: the fact that every person equipped with a wireless set could pick up or intercept messages sent by a transmitting station (Balbi, 2013; Hong, 2001).

The birth of broadcasting was nothing more than an unintended consequence of the "misguided use" of point-to-point wireless telephony. It was "another way" to look at and think about wireless, and it sprang from many different factors: technical inventions such as De Forest's *audion*; the work of so-called radio amateurs, interested in sending and receiving messages as well as just listening to music, information, and entertainment (Balbi & Natale, 2015; Douglas, 1987); and finally new and innovative

² One may argue that natural events, such as solar and lunar eclipses, large-scale weather phenomena, or explosions of volcanoes, can be defined as events sometimes global in nature, witnessed simultaneously by massive despatialized audiences (cf. Peters, 2015).

ideas of communication such as the radio music box memo that Sarnoff sent to the directorate of American Marconi in 1916. Sarnoff's goal was to turn radio sets into popular domestic furniture that emulated previous sound technologies such as pianos and phonographs. In less than one decade, the idea of being entertained and informed through a simple device placed at the center of the living room became the basis of the most powerful one-to-many communication flow in human history: broadcasting.

The Victorian era saw the advent and diffusion of new one-to-one and one-to-many media powered by electricity. Probably more than any time before, the mutual interdependence of one-to-one and one-to-many communication flows became clearly articulated through mediating technologies. On one hand, historical analysis reveals that the very technologies could have been developed indiscriminately to support both sides of the matrix. As we point out later in the conclusion, this shows that there is a high degree of interpretive flexibility in any new medium, and the form it is going to take is often unpredictable and exogenous to the technology itself. Furthermore, it also becomes clear that any one-to-many medium relies to a large extent on point-to-point distribution networks (e.g., a newspaper gathering information through the telephone, the microwave system that delivers radio and later TV signals to local stations).

The Victorian era ended in 1901 with the death of Queen Victoria, but its electronic legacy continued and was further developed in the early 20th century when communication technologies started to be increasingly distinguished in two different respects in terms of politics, investments, social relevance, and technical presence. Labeled as *telecommunications*, point-to-point technologies were perceived as separate media that had little to do with the broadcasting technologies fostering one-to-many communication flows. This semantic divide would be challenged at the end of the century, during the so-called digital age.

The Digital Age

Paraphrasing Silverstone (1995), *media convergence* is a dangerous concept that is often applied without any exact definitions at political, economic, technical, and social levels in different contexts. Tracing the roots of the term to the 1980s, *convergence* originally meant a collapse of previously clearly defined two alternative forms of communication matrixes: telecommunications as the epitome of one-to-one message flows and mass media that reflected the one-to-many transmission model (Lind, 2004).

From the beginning, the concept of convergence was linked to another term that captures one of the essential qualities of modern information: *digitization*. Digitization is both a micro and macro phenomenon that undermines previously established boundaries. By transforming both visual and aural content in the sequences of digits, it has the power to obliterate previously established and technologically discrete media platforms. Furthermore, in association with the Internet, digitization leveled the playing field and enabled individuals to increasingly participate in the production and distribution of content. And it is the distribution phase that, according to some scholars, became a genuine novelty in the new media, with an emphasis on the two-way capabilities of communication technology that results in a combination of one-to-one and one-to-many forms (Rice, 1984).

Consequently, in the digital network era, the dichotomy at the center of this study clearly reached its limits and showed its elusiveness. Yet, we argue that such quality was intrinsic for the entire history of communication, although not previously completely understood. It became obvious now because modern digital technologies simultaneously foster both one-to-one and one-to-many exchanges, but also because they seemingly ushered in “new” exchange patterns described sometimes as many-to-one and many-to-many information flows (Jensen, 2010). Yet, looking carefully at the entire history of communication, even these distribution forms are not so new. Many-to-few communication patterns may be already discerned in strikes, petitions, and protests, as well as many-to-many information flows in which the senders represent relatively large collectivities such as corporate establishments talking to their shareholders or diplomats speaking on behalf of their governments (cf. Peters, 2010). Therefore, the “new” qualities attributed to the digital media are nothing more than the most recent manifestations of some old and historically deeply rooted patterns.

The second significant novelty attributed to new media involves a shift in the conceptualization of audiences (Napoli, 2010). Whereas the 20th-century media audiences provided the producers with only deferred feedback, new media increasingly rely on more immediate forms of feedback through which users—both producers and consumers of messages—can be surveyed and their habits traced in real time. In essence, there is again an analogy with some old forms of mass-mediating technologies such as theaters or church pulpits whose protagonists simply could not ignore instant feedback when communicating with their audiences. Indeed, Peters (2010) claims that salesmen, missionaries, and campaigners should be considered the oldest and still most effective media of persuasion who have always tailored their mass-mediated content to the individual receivers of their messages.

Conclusion

When we embarked on this research project, we had in mind the dichotomy and periodizing divisions of point-to-point and one-to-many eras to show that, in specific moments of communication history, one prevailed over the other. Studying this topic more in depth, we realized that our goal was not only difficult to reach, but also that this approach to communication history can produce oversimplifications that counteract the power of history itself, the latter being a discipline that aims to capture complexity.

This brief historical examination has illustrated two main flaws of the one-to-one and one-to-many dichotomy. First, historical sources indicate that the two patterns of communication are inherently interwoven and the dichotomy itself dissolves into a broad continuum of overlapping possibilities that stem from the wide range of technological potentials embedded in any medium. Classical republican thinkers from Plato to Rousseau made it an imperative that one-to-many flows in popular assemblies should be complemented by intimate one-to-one mingling in the public square and vice versa. It was Jefferson who challenged this equilibrium by promoting a new normative model of a mass-mediated democracy relying on the notion of virtual publics. But the Jeffersonian newspaper itself stood upon the shoulders of technologies that followed one-to-one or point-to-point logic. Print media had to first collect information through the postal service and telegraph, telephone, or wireless before disseminating it to its audiences.

Even the historical period that gave birth to the one-to-many and one-to-one dichotomy—the broadcast era—did not have the power to change anything about this logic.

Second, the ultimate manifestation of such latent technological possibilities becomes a function of the structuring qualities of social systems, which for various reasons put more emphasis on one side of the dualism over the other. Consequently, the analysis suggests that it is impossible to tease out any clear-cut sequence of historical periods in which the one-to-one communication flow prevails over one-to-many and *vice versa*. Our study clearly indicates that practically all of the historically developed forms of communication rely on technologies that do not foster a priori one communication matrix over the other. It is the amalgamation of cultural, political, and economic interests of a particular society that again determines which mode becomes preferred over the other and to what extent such a preference will be articulated. Borrowing from the vocabulary developed by the social construction of technology, any medium examined in this essay—from the theater, postal service, telephone, and all the way to the Internet—is endowed with interpretive flexibility that allows it to be deployed alternatively to support one-to-one or one-to-many communication flows, a choice that is clearly the function of a wider context determined by a particular social constellation.

Whereas the culture of ancient Greece favored theater with active audiences, the Romans put an emphasis on the passive crowd that needed to be distracted from real-life problems. By the same token, the readers of the early newspapers may have had the opportunity either to discuss their content in the bustling London coffeehouses, turning the one-to-many flow into a myriad of intimate one-to-one exchanges, or to digest it in the solitude of isolated farmhouses in Jeffersonian rural America. In other sociohistorical arrangements, the same medium may have been used simultaneously for two contrasting purposes, reflecting the needs of its users. And so the public, epistolary nature of Renaissance letters exchanged between intellectuals and distributed by the early public postal service coexisted with merchant and diplomatic correspondence emphasizing strict privacy and secrecy. Similar arguments may be drawn from the experience of the telephone and wireless, and the struggle over their implementation in the Victorian era.

In the case of the Internet, the dissolution of clear-cut communication matrixes and social determination becomes even more pronounced. Indeed, it is important to emphasize that the digital communication network itself was not technologically predestined to foster a particular exchange pattern. Its conceptual outline was deliberately designed by the RAND Corporation's expert Paul Baran (1964) as an open, decentered grid without internal hierarchy. As such, it shares cultural DNA with the country of its birth—the United States—following its own geopolitical and economic interests (Kittler, 2008). What would have happened if any other culture attempted to implement its own electronic communication network? The French version of the electronic network was launched in the early 1980s under the name Minitel, and it had a hierarchically organized architecture reflecting the social-psychological makeup of a more centralized, hierarchically organized society fostering one-to-many communication flows (Kramer, 1993; Schafer & Thierry, 2012). The U.S. decentralized horizontal structure of the electronic network ultimately prevailed, yet it has been constantly challenged by centralizing tendencies—either by the introduction of the World Wide Web and client-server model, or by commercial and political interests. Musiani and

Schafer (2011) claim that this pressure constitutes a significant challenge of the nature of the Internet, pushing it increasingly toward *broadcasting-zation*, or a one-to-many dimension.

Even though this project took a completely different direction from the one we originally had in mind, this does not diminish its informative and especially historiographical relevance. Actually, it aims to be an example of the power of social and cultural history in enriching our understanding of communication and media studies. First, it offers a critique of grand social theory and periodization in general. It can be read as a plea for a more nuanced, complicated, entangled, and creative history of communication, in which dichotomies and periodization that seem to be “natural” in communication studies in reality are historically constructed and often inaccurate semantic traps. Consequently, also any attempt at periodization that relies on such dichotomies may be useful as a didactic tool that reduces historical complexities, but we need to constantly keep in mind that at some point such a strategy produces ahistorical accounts.

Second, this study can be an example of the need for contemporary media studies to liberate themselves from narrowly defined 20th-century concepts. The reductionist definition of what constitutes a communication technology, as well as the one-to-many and point-to-point communication concepts themselves, are historical products of a specific moment in communication research that is no longer relevant. This article clearly shows how communication history is best done by thorough analysis of comprehensive historical developments over extended time spans. Not only was our original theory, once tested against the historical evidence, shown to be weak, but also the role of grand theories itself needs to be questioned. Most likely, contextualized empirical evidence would yield a much more nuanced conceptual apparatus, leading consequently to a more resilient body of theoretical knowledge whose core paradigmatic tenets will not need to be rewritten anew every time a new wondrous technology hits the market.

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