
Telegraph Messenger Boys: Crossing the Borders between History of Technology and Human Geography*

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Historians of telegraphy have traditionally focused on the system-builders who invented wire communications technologies and incorporated them into profit-making enterprises. Geographers of communications have traditionally traced the changes that the telegraph network wrought on the rank-size of cities and the speed of business. Both have ignored the history of the telegraph messenger boys and the “lived geography” of the telegraph network. This article summarizes a study of telegraph messengers as both active components of technological systems and laboring agents within produced urban spaces, bringing together the fields of both history of technology and human geography. **Key Words:** communications technology, historical geography, labor geography, telegraph network, urban geography.

Introduction

The story of America’s first electrical communications network, the telegraph, has been told many times in heroic Zane Grey style since the first branch of that network was erected between Washington, DC, and the nearby city of Baltimore in the mid-1840s (Grey 1939). Early accounts described the genius of inventor Samuel Morse in creating a workable system of “communication at a distance” through wires and batteries, poles and crossarms, and dots and dashes. Later tales written after the Civil War recounted the telegraph’s effects on commerce and government, and the profit-making potential of the network, as evidenced by the rise of the Western Union Telegraph Company to “natural monopoly” power (Reid 1886). The twentieth-century histories that followed in the wake of two world wars still marveled at the telegraph’s importance, but also described the telegraph’s “inevitable” decline in the face of “superior” technologies such as airmail and the telephone (Harlow 1936; Thompson 1947). And at the turn of the twenty-first century, with new digital packet-switching computer networks begging analogies to the dots and dashes of old, the telegraph continues to be reimagined as “the Victorian Internet” (Standage 1998).

In most of these stories, telegraph messenger boys appear on the margins as colorful but

unimportant characters. From the start of the first commercial telegraph line in 1845, young boys were employed to ferry handwritten messages into and out of the electrical telegraph system, to and from individual customers. About the same time such messages became known as “telegrams,” the boys started to become known as “messengers.” In the aftermath of the Civil War, messengers were clothed in military-style uniforms; at the turn of the twentieth century, they were supplied with modern safety bicycles. Thus has the whimsical image of the messenger survived in popular culture, still available today for rent on videocassette in old movies from the 1930s and 1940s starring child actors such as Mickey Rooney and Billy Benedict.

But real messenger work had little in common with its Hollywood depiction. In 1901, a Philadelphia “Western Union boy,” for example, actually would have worked for another company called American District Telegraph, or ADT (the forerunner of today’s ADT security systems). He would have been one of over 150 ADT messengers in the city, among their twenty-two branch offices. At 14 years of age (assuming he had not lied on his job application), he would have worked ten-hour days, seven days a week, waiting on a bench in back of the district office with five other boys for his turn at the next messenger call from any of the 250 or so electric call-boxes on his local

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circuit out of the more than 5,000 call-boxes scattered throughout the city. This one messenger would have handled about twelve telegrams a day, both pick-ups and deliveries, receiving a piece wage of 2¢ for every call—barely enough money to cover his weekly bicycle and uniform rental fees, let alone his meal, maintenance, and mending costs. With the telegraph company hiring him out for other odd service jobs that paid by the hour (or the minute), his overall wage might come to a little over U.S.\$2 a week—almost exactly what he would have been making at the same occupation in the same city a quarter-century before. (In contrast, an adult telegraph operator would have earned from \$10 to \$15 a week during the same time period, and a telegraph office clerk might have made between \$5 and \$10 a week.)¹

That such work existed at the birth of electric communications is not surprising, but the fact that messenger work not only persisted, but thrived for more than a century from the 1850s to the 1950s—through a tumultuous period of urban, technological, cultural, social, political, and corporate upheaval in America often referred to as the heyday of “modernity”—poses many historical questions. Consider the simple quantitative data available from the government on the number of telegraph messengers employed from 1870 to 1950 (U.S. Bureau of the Census 1904, 1931–1933, 1942–1943, 1952–1957; Edwards 1943). Rather

than declining with the invention of the telephone in the 1880s, or even with the increased use of the automobile in the 1910s, messenger employment peaked around 1930 and only really began to drop off after World War II (Figure 1). Such a pattern can be interpreted in many ways: were messengers highly efficient workers who were hired in greater numbers because they could never be replaced even by “remarkable improvements in mechanisms” (Gray 1924, 24), or were they an ever-growing bottleneck in telegraphy, “a problem beyond the graphic chart of the engineer” (*Telegraph and Telephone Age* 1923b, 270)? (See Figure 2.)

This historical question is complicated by a geographical one. Plotting telegraph messengers per one hundred square kilometers by state shows a bias toward the eastern, urbanized states, with New York, New Jersey, Massachusetts, Pennsylvania, Ohio, and Illinois leading the nation in the industrialized northeast (Figure 3). Plotting telegraph messengers per ten thousand inhabitants, on the other hand, shows that when adjusted for population density, areas of the far west actually had more messengers per capita than some eastern areas, a necessary cost of moving messages great distances from rural telegraph offices to small, dispersed populations (Figure 4). Unlike contemporary maps of physical and mechanical telegraph offices and telegraph lines—used at times by Western Union to argue how fairly it served the

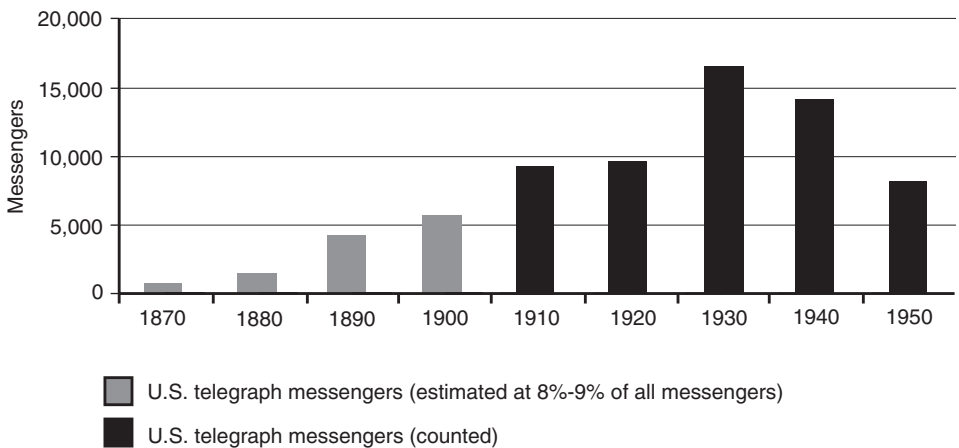


Figure 1 U.S. telegraph messengers, 1870–1950. Figures from 1870–1900 are conservative census estimates based on the category of “Messenger and errand and office boys.” Source: U.S. Bureau of the Census 1904, 1931–1933, 1942–1943, 1952–1957.



A



B



C

Figure 2 Three views of telegraph messengers: (A) Postal telegraph advertisement, 1923; (B) Cartoon of dozing messenger, 1906; (C) Reformer photo of messenger, 1915. Sources: *Telegraph & Telephone Age* (1923a, i); *Commercial Telegrapher's Journal* (1906, 371); *National Child Labor Committee* (1915, 8).

entire nation—these maps of telegraph messengers illustrate that the uneven geography of the national-scale telegraph network established in the nineteenth century persisted well into the twentieth century.

When followed through time and space in this way, the story of the messengers is an important part of the history of “white-collar” office work in the early twentieth-century U.S. corporation (Mills 1951; Strom 1992). Telegraph messengers were merely the most public example of a widespread youth courier occupation that existed in other information networks such as the post office and the Bell System, not to mention the growing number of large private

corporations that set up internal messenger services in “scientific” efforts to support the new “visible hand” of capitalist business management (Leffingwell 1917; Chandler 1977). From 1850 to 1950, the patterns of increasing urbanization, migration, and industrialization that generations of historians have already identified clearly indicate a shift to a qualitatively different and diverse “modern” American society (Berman 1982; Ward and Zunz 1992). Yet U.S. business displayed a striking continuity in the construction of this mostly young, mostly male, mostly “white” low-wage labor force over such a long and transformative period of time and technology.

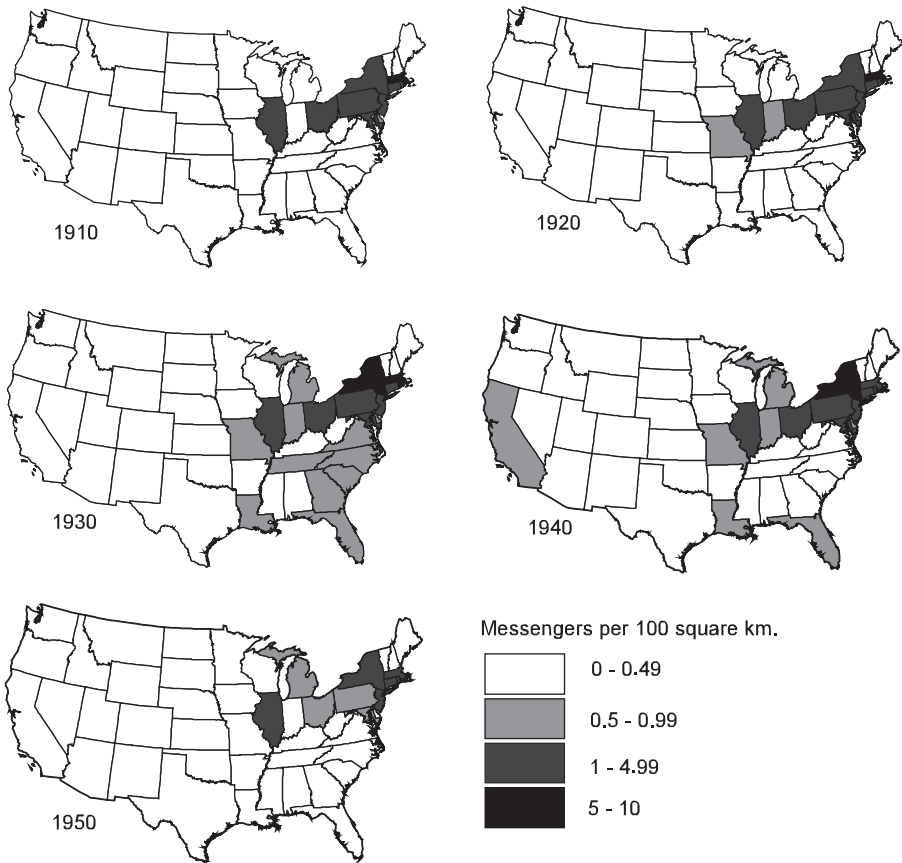


Figure 3 Messengers per one hundred square kilometers by state, 1910–1950. Source: U.S. Bureau of the Census 1904, 1931–1933, 1942–1943, 1952–1957.

Were these messengers lazy and slow, as derisive cartoons would suggest, or were they industrious and efficient, as advertisements declared? Were messengers exploited children, as the child-labor tracts argued, or up-and-coming young businessmen, as vocational guidance manuals suggested? And were messengers a throwback to preindustrial communications, as telegraph engineers lamented, or were they a textbook example of the crucial need for—and improved situation of—the skilled worker in the modern industrial age, as union leaders proclaimed? This article presents an overview of a larger research project that draws on the disciplines of both history and geography to argue that, because of their technological role, their symbolic value, and

their creative energies, understanding the telegraph messenger boys is crucial to explaining the historical geography of the telegraph system in America (Downey 2000b, 2002).²

A Multidisciplinary Methodology

Studying the role of messengers in producing and reproducing the spatial/temporal parameters of the telegraph requires what might be called an interdisciplinary or multidisciplinary approach, in two senses. First, it relies upon a diverse array of sources, both quantitative (such as census records and wage reports) and qualitative (such as personal recollections and literary works). Traditional histories of the telegraph, focusing on communications

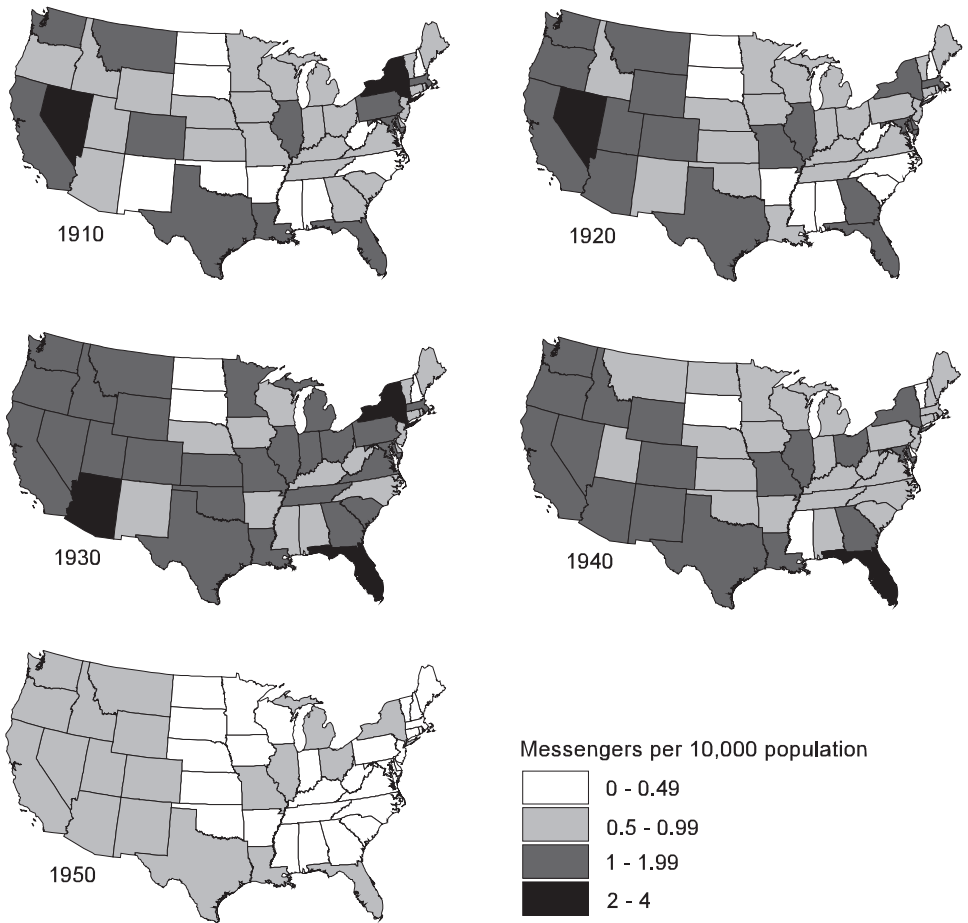


Figure 4 *Messengers per ten thousand inhabitants by state, 1910–1950. Source: U.S. Bureau of the Census 1904, 1931–1933, 1942–1943, 1952–1957.*

technologies and their inventors, typically cite laboratory sketches, patent agreements, and engineering notebooks. But a study of telegraph labor must instead include hiring records, work rules, union contracts, management minutes, and employee interviews (not to mention popular advertisements, dime novels, and muckraking news reports).

But besides new sources, a multidisciplinary history of telegraph messenger work demands a new interpretation of these sources, using several different analytical frameworks at once. After all, facts and figures—not to mention memories and moments—amount to little without some sort of context. Especially in a

study of a national communications network such as the telegraph, not just technologies and laborers, but institutions and localities must take the stage. Two theoretical frameworks—one drawn from the subfield of history of technology (Staudenmaier 1985; Cutcliffe and Post 1989; Smith and Marx 1994), and one drawn from the subfield of human geography (Gregory and Urry 1985; Peet and Thrift 1989; Agnew, Livingstone, and Rogers 1996)—are crucial to understanding the story of the telegraph messengers: the idea of a socially constructed technological system and the concept of socially produced space and time.³

Take the concept of a socially constructed technological system first. To conceive of a “technological system” is to treat individual technologies—be they physical devices or scripted procedures—not in isolation from each other, but together in the service of larger goals. In this view, individual inventors are less important than “system builders,” those innovators and entrepreneurs who are able to combine particular technologies, sources of capital, and management expertise into cohesive institutions serving some wider purpose (Hughes 1983, 1987). For example, the various technologies that made up the telegraph network in America—senders and receivers, printers and repeaters, lines and poles, typewriters and pneumatic tubes, batteries and dynamos—each “coevolved” with the others, under the conscious control of communications providers and equipment manufacturers. But these are not the only groups of people who shape technology. Other actors, such as government regulators or individual consumers, influence the evolution of technological systems as well (Cowan 1987). Thus, such systems can be said to be “socially shaped” or “socially constructed,” taking both their form and the popular understanding of their purpose at any given moment through negotiations among these different groups of actors. Yet even socially constructed systems are still bound by the physical constraints of each individual technology’s capacity to affect the material world (Berger and Luckmann 1966; MacKenzie and Wajcman 1999).

Information networks are inevitably socially constructed technological systems (John 1994; Abbate 1999). The technological network of the telegraph was more than just a combination of electromechanical systems; it was a combination of systems of labor, in which messenger boys served different functions at different moments—sometimes working as technological components themselves, sometimes being sold as commodities along with the telegrams they carried, and sometimes acting as agents of change within the technological network itself. Messengers were not simply rendered “obsolete” by the slow and steady advance of technology—whether in telegraphy, telephony, or airmail. Instead, over the course of a century, they both cooperated in maintaining their usefulness to the telegraph and fought to

change their relationship to the telegraph in a way that would ultimately bring about their own exit from the industry.

Like the notion of a socially constructed technological system, the idea of socially produced space and time sounds counterintuitive at first, but is actually a very useful theoretical tool. Both “space” and “time” are somewhat paradoxical concepts, for while they stand as abstract and absolute resources available in finite quantity, they are also part of a socially constructed reality, with different cultures in different times and places having entirely different conceptions of what it means to be “near” or “far,” to move “quickly” or “slowly.” Different societies have also installed different technologies to alter their experiences of both space and time; thus, both space and time themselves can be thought of as commodities that are “produced.” For example, in the early twentieth-century telegraph, fitting more floors on a building produced more office space for operators and machinery; speeding up the machines that controlled telegraph transmission and reception produced more time for additional messages to be sent. But just as space and time are both physical and social phenomena, the production of space and time may have both physical and social implications as well, with space arranged specifically to exclude certain disempowered persons, or time arranged specifically to accommodate certain powerful persons. In all of these ways, the spatialities and temporalities that societies construct through their technologies—again, both physical artifacts and social practices—have real effects on how citizens live their lives (Harvey 1990; Lefebvre 1991).

Information networks are inevitably involved in the social production of space and time (Abler 1968; Kellerman 1993; Graham and Marvin 1996). The telegraph industry produced certain spaces of control over information at both national and local scales. Besides producing wired “virtual” spaces for the transport of electrical information, the telegraph companies had to produce specific physical spaces for the transport of written information, spaces that were necessary to the messenger service. From numbered benches and uniform lockers in the back rooms and basements of telegraph offices where messengers waited out of public sight, to parade grounds, lecture halls,

vocational classrooms, and “vice-free” business districts in the wider city where messengers were displayed before the public, the industry attempted to control the very urban space that grounded each local telegraph office.

Taken together, these two theoretical frameworks from history and geography suggest that analyzing social relations is essential in trying to understand the production of human innovations, whether those innovations are technological systems or spatial/temporal patterns. To speak of the “social production” and “social construction” of innovation, then, is really to speak of the social relations of human labor (Scranton 1988). Many historians of the telegraph industry have investigated the telegraph operators, those laboring men and women who moved telegrams electrically, whether working alone in country offices at simple mechanical Morse keys (as was usually the case in the mid-nineteenth century) or working side-by-side with hundreds of others in noisy urban skyscrapers at expensive “Simplex” telegraph printers (as was more likely in the early twentieth century). Such studies have focused on a few key elements: unionization among these skilled office workers, the rise of a new category of “white-collar work” to describe such labor (with “white” often referring to the ethnicity of the workers as well), and the feminization of that white-collar work, meaning both the entry of more and more women into such occupations and the cultural redefinition of those occupations themselves as “women’s work.” Thus, class, ethnicity, and gender analyses have all been successfully brought to bear on the problem of telegraph labor in the production of both telegraphic technologies and telegraphic spatiotemporalities (Ulriksson 1953; Craypo 1979; Gabler 1988; Andrews 1990; Israel 1992).

However, studying the telegraph messengers demands several additional tools as well, because messenger work was fundamentally distinct from operator work in both space and time. Telegraph managers, engineers, operators, and clerks—the classic actors in most business and technology histories—dealt with a time-pressure production floor of electromechanical senders, routers, repeaters, and receivers of all kinds. But telegraph messengers worked literally outside of the production floor, as service workers in the customer location,

mediating between the customer and the rest of the telegraph network. As in other service jobs, then and now, issues of class, ethnicity, gender, and age became all the more important, as the ability of a messenger to move inconspicuously in different urban settings and to speak intelligibly to different groups of consumers made all the difference in getting the message through (Benson 1986; Leidner 1993). Thus, while the telegraph network had the spatial and temporal characteristics of both a high-tech, white-collar production industry and a low-tech, “blue-collar” service industry, those characteristics were embodied hierarchically in different groups of employees. This tension makes the history and geography of the telegraph messengers an important topic of study in the history and anthropology of waged work itself (Burawoy 1979; Hodson 1995; Barley and Orr 1997).⁴

Messengers in the Multiscale, Uneven Geography of the Telegraph

The story of the growth of the telegraph network in the mid-nineteenth century from a regional to a national scale, as a service moving information electrically between cities, is well-known. The telegraph in the U.S. was unusual in that it was privatized under the all-but-monopoly control of Western Union managers, rather than nationalized under the government post office, as in most other industrializing countries of the time. But, private or public, the network was useless without a growing army of operators, clerks, and messengers. The overlapping maps of labor markets, customer markets, technological infrastructure, and institutional control resulted in an “uneven geography” of telegraph service in the young industry, with each institution facing a somewhat different time/space environment (Smith 1984).⁵

The telegraph continued to grow, not only as a system of electrical communication between cities, but also as a system of written communication *within* cities. Again, rather than being subcontracted to the civil-service post office as in other countries, this intracity system was institutionalized under hundreds of private franchise agreements between national firms such as Western Union and district telegraph companies such as American District

Telegraph, and was enabled by a nationwide legion of young telegraph messengers, reflecting more the vibrant diversity of their local communities than the discriminatory monotony of a single national employing agency. An understanding of the value of local messengers to the national telegraph reveals how the district companies became key resources in the industry's "Gilded Age" competitive battles.

Key to such battles were the physical movements of messenger boys through the spaces of telegraph production and consumption, from their wheeled freedom through the dangerous streets to the precise discipline of their hidden offices. While operators were physically enmeshed in an electrical communications system, messengers extended this communications system to a system of transportation. In such a role, time, for the messenger, took on new significance for the space of the telegraph network. Telegraph companies were fond of claiming that their technologies "annihilated space through time," but those companies were physically trapped within an urban system of buildings and roads, elevators and corridors—technologies that, instead, annihilated time through space (Graham and Marvin 1996, 115) and could only be traversed by messenger boys. Messengers became the scapegoat for any delay in the "speed of light" telegraph, presenting an incongruous premodern figure that somehow did not fit with the idea of "lightning wires" and scientific progress. Yet messengers kept in their heads complex virtual maps, not only of the urban landscape, which they traversed every day, but of the national landscape, which demanded that telegrams of differing lengths and differing destinations be priced differently as well. Thus, messengers occupied a key position in this information network at what might be considered the boundary between the virtual and the physical.

The messenger's position here was not arbitrary. The socioeconomic class of the messenger worked together with cultural understandings of both gender (Rothschild 1989; Lerman, Mohun, and Oldenzil 1997) and maturity (Hawes 1997; Macleod 1998)—in other words, the assumptions and limits of masculinity and femininity, childhood and adulthood—both to broaden messenger duties and to limit the scope of their urban access. Telegraph managers chose young men as their

messengers (as opposed to, say, adult men or young women) for very particular reasons. Messengers had to be low-wage and controllable, but diligent and trustworthy. They needed to be instantly recognizable, but also unobtrusively invisible. Messengers had to be able to access places and activities in the city that most urban women could not, but unable to demand the wages and respect of an urban man. Thus, changes in the cultural meanings behind both sex and age were important aspects of "messenger technology," aspects illustrated well in the urban "vice" battles of the 1900s and 1910s, which attempted to draw temporal and spatial boundaries around saloons and brothels, gambling rooms and pool-halls, keeping young messengers (and the information they carried) at bay (Downey 2000a).⁶

These temporal and spatial boundaries were crucial to the maintenance of a cultural boundary between "child" and "adult" in the telegraph labor force for over fifty years, through a period of controversial messenger involvement with labor unions from the 1870s to the 1940s. Messengers were clearly thought to be "unskilled" laborers, and—especially in cities—came from poor or working-class families. The abstract Marxian class relation between worker and employer—seller of labor power and purchaser of it—was never made more concrete than with the messengers, who remained subcontracted, piece-wage workers for nearly a century (Marx [1867] 1976; Braverman 1974; Harvey 1982). But telegraph operators were seen as white-collar laborers, and messengers might have been granted some of this status, too, especially when the public imagined messengers advancing to operator positions.

Telegraph companies were forced to pay close attention to such messenger career and education prospects in the 1920s and 1930s. Even as real chances for messenger career advancement dwindled with the increasing (but geographically uneven) feminization and mechanization of telegraphy, a "myth of messenger advancement" had to be upheld at all costs: to public-school officials, to child-labor reformers, to telegraph customers, and to the messengers themselves. By the 1920s, this myth had become so important that it attained a material and spatial expression in a quasipublic school run by Western Union in New York

City. Thus, the world's largest telegraph company found itself in the education business, in a striking example of the historical shift from apprentice training to "vocational education" that accompanied turn-of-the-century urbanization, immigration, and industrialization (Nasaw 1979; Perlmann 1988). Such were the political costs of continuing to employ the nation's single largest child-labor army.

But preserving such a large urban concentration of messengers had unintended consequences for the telegraph companies as well. Through the changes in the telegraph "apprentice" relationship, one part of the telegraphy working class—the operators—eventually came to see their interests as bound up with another part of the telegraphy working class—the messengers. The sheer number of messengers, their concentration in urban nodes, the youthful eagerness of the boys to strike, and the potential for union-friendly messengers to grow into fully-unionized operators all made the boys attractive to the telegraph labor movement. But again, the timing of events and the spatiality of messenger employment were both crucial: messengers were only brought into a union when that union felt itself under attack, and messengers were most crucial in New York City, where their numbers were greatest and their career opportunities the least.

While these developments are important, the spatial and temporal access of messengers to the sites of urban information affected more than just the history of the telegraph industry. Messenger geographies also affected the links between the three contemporary information networks of the telegraph, telephone, and post office from the 1870s to the 1930s—the larger "internetwork" of competing and cooperating communications systems that the messengers negotiated in the course of their daily labor. The fact that a telegram sold by the telegraph network could actually be shepherded by messengers (or in defiance of messengers) through the other two networks on its way to the final consumer illustrates well that the three information networks constituted a sort of multimodal information internetwork that began and ended with young boys but encompassed a variety of technologies and institutions in between—even as those technologies and institutions shifted over time, with the telephone controlling the telegraph from 1910 to

1914 and the post office controlling both the telegraph and telephone during World War I. In the continually reproduced internetwork of competing and cooperating technological systems, messengers and other "boundary workers" like them were crucial (Edwards 1998; Downey 2001).

Conclusion

Today, just as a century ago, a new breed of bicycle messenger plies both the physical boundaries of streets and buildings between digital information networks in "postmodern" cities (Culley 2001) and the metaphorical boundaries between contradictory realms in postindustrial society—the seen and the unseen, the indoor and the outdoor, the virtual and the physical, the child and the adult, the entrepreneur and the employee, the public and the private, the local and the global (Harvey 1989; Giddens 1990; Castells 1996). By following the telegraph messengers historically through the complex and uneven spaces of yesterday's analog information internetwork, it will be easier to perceive those same boundaries (and boundary workers) in the digital information internetwork we are building today. ■

Notes

¹ Figures drawn from: American District Telegraph Company, Philadelphia, minute books and annual reports (1878–1907), 1996 addendum, box 4, folder 2, Western Union Archive, Archives Center, National Museum of American History, Smithsonian Institution, Washington, DC; Western Union Telegraph Company, Harrisburg, office ledgers (1864–1902), series 3, box 11, folders 2–3, Western Union Archive.

² This article was prepared as an overview of a larger Ph.D. dissertation project as an entry in the J. Warren Nystrom dissertation competition held by the Association of American Geographers in 2001–2002. For more detailed arguments and citations of archival sources, please see the original dissertation (Downey 2000b) or the subsequent book (Downey 2002).

³ "History of technology," as used here, refers not just to the history of artifacts, but also to the relationship of artifacts to social context. "Human geography," as used here, refers to approaches that consider the dimensions of spatiality and temporality to be fundamental to all political-economic social processes of production, consumption, and reproduction (as opposed to other subfields of geography, such as cultural or humanist geography).

- ⁴ Key to the best work in this field is the recognition that the idea of “work” itself is a socially constructed practice, not a problem-free universal economic category; work produces values and social relations, not just commodities.
- ⁵ Here, the term “uneven geography” means that various differences between local sites of a national network—involving consumer populations, labor markets, environmental conditions, and urban infrastructure, for example—inevitably affect how that network functions as a whole.
- ⁶ In the terminology used here, “gender” is a social category, dependent on historically contingent notions of what behavior is considered “masculine” and what behavior is considered “feminine” by particular social groups, while “sex” is a biological category. Similarly, the use of “maturity” is also meant to indicate a social category, as opposed to the biological category of “age.” Maturity is defined by ideas of what behavior is thought appropriate for an “adult” versus what behavior is considered appropriate for a “child.” Around the turn of the nineteenth century, such ideas were further complicated by the introduction of the new category of “adolescence” into the mix.

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