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News Gathering by Mail in the Age of the Telegraph: Adapting to a New Technology

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With the question "What hath God wrought?" Samuel F. B. Morse signaled the beginning of a communications revolution that eventually altered the basis for gathering and relaying news. Until Morse demonstrated the practicability of the telegraph on May 24, 1844, most transmission of news depended on one or more modes of transportation. The mails, from which editors obtained most of their news before the invention of the telegraph, moved by foot, horse, boat, and rail.¹ Even in the face of instantaneous communication by telegraph, the comparatively primitive postal service continued to be of great value as a news relay. The mails adapted to the technological challenge by finding a new niche in the larger, more complex communications system.²

For one striving to explain how technologies survive the challenge of competing innovations, the concept of a niche may prove to be an analytical tool with more than metaphorical value. Ecologists developed the theory of the niche to explain the dynamics of competition and coexistence among organisms in an environment with limited resources. Of special relevance here is the theory's power to explain how a changing environment affects populations in a community.

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¹Long-distance communication apart from transportation was accomplished in two ways before the telegraph—carrier pigeon and semaphore (or visual telegraph)—neither of which was used much by the press in the United States. Victor Rosewater, *History of Cooperative News Gathering in the United States* (New York, 1930), pp. 30–33.

²It should be noted that this study deals only with postal services relaying news to editors. The post office also carried the completed products—newspapers and magazines—from publishers to subscribers, a subject not covered here. See Richard B. Kielbowicz, "News in the Mails, 1690–1863: The Technology, Policy, and Politics of a Communication Channel" (Ph.D. diss., University of Minnesota, 1984).

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When a new species or form begins to compete for some of the limited resources, certain consequences are possible. Niche theory predicts that the introduction of a competitor can, in some circumstances, promote specialization (i.e., exploiting a narrower range of resources), while, at other times, it can promote generalization (i.e., turning to new resources) for survival.³

Looking to the physical or biological sciences for help in explaining technological change is not as large a leap in logic as it might first appear. Lewis Mumford, in *Technics and Civilization*, turned to geology for the concept of a pseudomorph to explain cultural phenomena he observed.⁴ Niche theory, more comprehensive than concepts such as the pseudomorph, has already proved of value in a number of the social science disciplines, especially sociology, where it is an integral part of studies of human ecology.⁵ One study of communications industries has directly adapted the concepts and quantitative methods of niche theory.⁶ Other authors examining intermedia competition in the mass media have invoked remarkably similar concepts.⁷

As a theory with some relevance to the study of the history of technology, it has several advantages. First, at least in the field of ecology, the niche is a fully developed theory with an integrated set of concepts and propositions; some of these may be adapted, along with the methodologies for studying them, in other realms of inquiry.

³*Webster's Third New International Dictionary* defines niche as "a site or habitat supplying these [life-controlling] factors characteristically necessary for the successful existence of an organism or species in a given habitat" and "the role of an organism in an ecological community involving esp. its way of life and its effect on the environment." For an overview of the ecologist's understanding of niche theory, see Eric R. Pianka, "Competition and Niche Theory," in *Theoretical Ecology: Principles and Applications*, 2d ed., ed. Robert M. May (Sunderland, Mass., 1981), pp. 167–96.

⁴Geologists, Mumford wrote, use the term to describe a rock that retains "its structure after certain elements have been leached out of it and been replaced by an entirely different kind of material." Mumford described the analogue of a cultural pseudomorph in which new forms, "instead of crystallizing independently into their own appropriate forms, may creep into the structure of an existing civilization." Lewis Mumford, *Technics and Civilization* (New York, 1934, 1963), p. 265.

⁵For an application of niche theory in human ecology, see Amos H. Hawley, *Human Ecology* (New York, 1950), pp. 42–46; and, in history, see Paul Colvaux, *The Fates of Nations* (New York, 1980).

⁶John Dimmick and Eric Rothenbuhler, "The Theory of the Niche: Quantifying Competition among Media Industries," *Journal of Communication* 34 (Winter 1984): 103–19.

⁷In writing about the rapid succession of new media technologies in the 20th century—film, radio, television, cablecasting—analysts note that the newest innovation never truly threatened the existence of the established media. See, e.g., Sydney W. Head, *Broadcasting in America*, 2d ed. (Boston, 1972), pp. 217–44; and Edwin Emery and Michael Emery, *The Press and America*, 4th ed. (Englewood Cliffs, N.J., 1978), pp. 428–29.

Second, niche theory accounts for both change and continuity, a feature with special attraction for historians. Third, as with most good theories, it is parsimonious: relatively few propositions provide a great deal of explanatory power.

Niche theory can account for the persistence of an established technology when its viability is threatened by a competing innovation. The dynamics of adaptation and survival have been explained as follows: "When a new form [here a technology] invades an established community [of related technologies], for example, overlap between two or more forms may initially be quite high. Over time, however, the competitors may evolve differently in terms of resource utilization. Such differences lower niche overlap and the intensity of competition to a tolerable level, thus allowing the forms to coexist."⁹

To apply niche theory in studying the effect of the telegraph on the established form of news relay—sending information in postal transports—involves, first, identifying the characteristics of the relevant technologies. In this case, news relay based on transportation faced competition from news relay by electric communication; each had certain advantages and disadvantages, explained below, that made it more or less desirable for news relay. Second, the economic and political (or policy) environment in which these technologies operated must be defined. The niche will be circumscribed by how well the technologies are suited to exploit these resources. Applying niche theory in a study of news gathering by mail is a useful reminder that technologies depend on more than economic resources. In this case, postal policy as devised by Congress and supported by publishers (but not always the post office) maintained the mails as a viable alternative to the telegraph. In other words, favorable government policy compensated for a technological shortcoming—the lack of speed—by subsidizing the costs of postal news gathering.

On the Eve of the Telegraph

News gathering using postal services had its roots in the very beginnings of American journalism. Before the 1840s, most newspapers emphasized nonlocal news in their columns, apparently assuming that readers learned about their own communities by word of mouth.⁹ Even though most papers concentrated on purveying news of the state and federal capitals, from the major commercial centers, and about Euro-

⁹Dimmick and Rothenbuhler (n. 6 above), p. 107.

¹⁰See David Russo, "The Origins of Local News in the U.S. Country Press, 1840s-1870s," *Journalism Monographs*, no. 65 (February 1980), pp. 1-4.

pean affairs, there were no formal news-gathering agencies until the late 1840s. A few modest efforts had been made to obtain nonlocal news using carrier pigeons, horse and railway expresses, and boats meeting incoming ships, but it remained until the first successful press association was founded in 1849 for one service regularly to seek out and relay news for a number of clients.¹⁰ Thus, throughout the 18th and early 19th centuries, almost all nonlocal news—the staple for newspapers—came by post. A content analysis of newspapers published between 1820 and 1846 found that about half the news items were clipped from other papers and about 15 percent either were from correspondents or were letters to the editor; all these depended on the mails. The remainder of the news was provided by local reporters and editors.¹¹ For the earlier period, some news was brought by travelers—a haphazard way of acquiring information.

The post office helped editors obtain news in two ways. Letters, though normally private intelligence, often conveyed information of general interest. One of the earliest forms of news gathering was simply printing letters received by the editor or others in the community. Some of the earliest newspapers arranged for correspondents to forward intelligence from distant locations. Later this practice was formalized when papers sent reporters to mail dispatches regularly from news-making centers, particularly Washington.¹²

Most important, though, was a special service provided for editors by the post office. Printers were permitted to exchange a copy of their paper with every other paper in the country; the post office carried the exchanges without charge. This practice arose as a custom in the early 1700s and was formally recognized in a 1758 policy statement by Benjamin Franklin and William Hunter, joint deputy postmasters general for the colonies.¹³ The first revision of postal laws under the Constitution, the Post Office Act of 1792, reaffirmed the editors' privilege.¹⁴

¹¹Richard A. Schwarzlose, "Harbor News Association: The Formal Origin of the AP," *Journalism Quarterly* 45 (Summer 1968): 253-60.

¹²Donald L. Shaw, "At the Crossroads: Change and Continuity in American Press News 1820-1860," *Journalism History* 8 (Summer 1981): 39.

¹³F. B. Marbut, *News from the Capital* (Carbondale, Ill., 1971), pp. 29-38.

¹⁴Ruth L. Butler, *Doctor Franklin, Postmaster General* (Garden City, N.Y., 1928), pp. 57-58.

¹⁵"That every printer of newspapers may send one paper to each and every other printer of newspapers within the United States, free of postage, under such regulations, as the Postmaster General shall provide." *1 U.S. Statutes at Large* 238. For a more thorough discussion of the origins and early history of the exchange privilege, see Richard B. Kielbowicz, "Newsgathering by Printers' Exchanges before the Telegraph," *Journalism History* 9 (Summer 1982): 42-48.

Not surprisingly, more than one postmaster general was troubled by a policy that sapped the resources of the department. The matter grew increasingly pressing as the department's deficits mounted after the War of 1812. Postmaster General Amos Kendall complained to Congress in 1838 that some newspapers exchanged with 500-600 others; most, he added, were cast aside and never used as sources of news.¹⁵ As the pretelegraphic era drew to a close, there were over 7 million exchanges circulating through the mails each year. From these 7 million exchanges, the 1,634 newspapers in the country could cull news for their own columns.¹⁶

The role of the post office as a news relay is illustrated by the story of how the *Jefferson Inquirer*, published in Jefferson City, Missouri, learned of President William Harrison's death in 1841. A letter reporting Harrison's death on April 4 was mailed to an editor in Cincinnati who informed a paper in Louisville, Kentucky. A copy of the Louisville paper was mailed to St. Louis. In turn, the St. Louis press copied the story. Extras were issued, some of which were sent to Jefferson City by steamer. The *Jefferson Inquirer* finally published the story on April 15—eleven days after the event.¹⁷ Other examples could be cited, but they would merely underscore the same point—that the mails, particularly exchanges, formed the backbone of news gathering before the telegraph.

A Two-Step Flow: Geographic Niches

Although the telegraph began to alter the basis of news gathering, it hardly rendered exchanges obsolete. Just as the telegraph was proving its worth to the press, Congress rewrote postal laws affecting the carriage of newspapers but left the exchange privilege intact.¹⁸ At the same time, Postmaster General Cave Johnson, echoing his predecessors, asked Congress to impose a limit on exchanges.¹⁹ As so many times

¹⁵Amos Kendall to House Committee on the Post Office and Post Roads, April 6, 1838, in "Letter Postage," *House Report No. 909*, May 18, 1838, 25th Cong., 2d sess., p. 3.

¹⁶In October 1843, the post office delivered 596,760 exchanges. Assuming that the October figures represented a typical month, more than 7.16 million exchanges circulated annually. "Report of the Postmaster General," *Senate Report No. 50*, January 18, 1844, 28th Cong., 1st sess. The 1840 census counted 1,634 newspapers in the country. William A. Dill, *Growth of Newspapers in the United States* (Lawrence, Kans., 1928), p. 79. On the average, therefore, each newspaper in the country received about 4,382 exchanges a year.

¹⁷Estal E. Sparlin, "The *Jefferson Inquirer*," *Missouri Historical Review* 32 (January 1938): 162.

¹⁸Act of March 3, 1845, 5 U.S. Statutes at Large 733.

¹⁹*Annual Report of the Postmaster General, 1845*, p. 858 (hereinafter cited as *PMG Annual Report*).

in the past, Congress took no action. Exchanges remained indispensable to much of the press for twenty years following the invention of the telegraph for newspapers carried by post brought information to editors not yet tied into the electric network. Much news now moved by a two-step process: carried by telegraph, stories were printed in towns at the terminus of the lines and papers there exchanged with others. This is analogous to niche theory's concept of spatial differentiation in which potentially competing forms occupy different areas.²⁰

Upstate New York was an early beneficiary of a two-step relay. One of the first telegraph lines in the country connected Albany with Utica, New York. The *Utica Gazette* carried its first column of telegraph news from Albany on February 3, 1846, which prompted astute editors in Buffalo, Rochester, and Auburn to request subscriptions or exchanges to obtain more timely reports. The next step was to hire a newsman in Albany to prepare a digest of news from the Boston and New York City papers for transmission to Utica. Once in Utica, the *Gazette* printed proof slips of the telegraphic news and mailed them by railway express. The *Gazette* took advantage of a postal service that had been offered since 1836 and that permitted editors to send news summaries by postal express in lieu of exchanging entire papers. When the telegraph reached Syracuse, the papers of that city assumed responsibility for receiving reports and forwarding slips by postal express.²¹

The experience of the *Pittsburgh Gazette* paralleled that of the *Utica Gazette*. In 1846, the *Pittsburgh Gazette* began printing a column of telegraphic news that consisted largely of market reports—a form of intelligence much in demand. As the westernmost source of timely news from the East, the *Gazette*, through its exchanges, furnished news to editors in the Ohio River valley and other parts of the West. Requests for exchange copies of the *Gazette* were more than the editor could handle, so he encouraged some papers to pay for subscriptions. He eventually persuaded several papers to share the costs of securing the news by wire.²²

As the telegraph pushed westward, the two-step flow of news remained important to the press. In Wisconsin, for example, the completion of the line to Milwaukee greatly reduced the time it took all papers in the state to obtain news from eastern cities. Before the telegraph reached Milwaukee, news took twelve days to arrive from Washington in the mail; after the telegraph, other dailies in the state, by exchanges with Milwaukee, could carry news from the federal capital about three

²⁰Pianka (n. 3 above), p. 169.

²¹Richard A. Schwarzlose, "The Nation's First Wire Service: Evidence Supporting a Footnote," *Journalism Quarterly* 57 (Winter 1980): 558-59.

²²J. Cutler Andrews, *Pittsburgh's Post Gazette* (Boston, 1936), pp. 127-28.

days after its occurrence. The *Milwaukee Daily Sentinel* carried telegraphic news, almost every day, from which other papers that received the *Sentinel* in exchange could select. In 1848, the year the telegraph reached Wisconsin, one week's telegraph receipts in Milwaukee amounted to \$127, of which newspapers paid \$50. In two other Wisconsin cities, newspapers paid about half the money collected.²³ The extension of the telegraph to Wisconsin may or may not have affected the quantity of news from distant places, but it certainly reduced the time lag in news flow, even for those towns not yet tied into the network.

By the early 1850s, all major U.S. cities except San Francisco enjoyed telegraph service. Not surprisingly, the major trunks developed in about the same order as had postal routes many years before. As with most forms of transportation and communication, the northeastern axis—from Portland, Maine, to Washington, D.C.—was blessed with the first and best service. A major branch followed the lines of commerce opened by the Erie Canal, from New York City through Albany and Buffalo to the Great Lakes and beyond. Cleveland, Detroit, Chicago, and Milwaukee were part of the Great Lakes network; Pittsburgh, Cincinnati, and Louisville anchored the Ohio River valley line. The key port of New Orleans was linked by a line through Atlantic coastal states as well as one running through the Mississippi valley, with St. Louis as an important node. Significantly for the two-step flow, towns in the hinterlands of cities waited longer to be tied into the growing net, so that nonlocal news still had to come by mail.²⁴

Satisfying the appetite for news on the Pacific Coast in the 1840s and 1850s was one of the successes of the two-step flow. Early California papers ran stories from eastern cities that had been telegraphed to New Orleans, published there, and then carried as an exchange in the mails down to Panama, across the isthmus, and up the Pacific Coast.²⁵ The path became less circuitous, though not much faster, when the telegraph reached St. Louis. The overland mail transported St. Louis papers, with their columns of telegraph news, to California.²⁶ The much-celebrated pony express provided a similar service for sixteen

²³Bradford W. Scharlott, "Lightning Strikes the Press: The Impact of the Telegraph on Wisconsin Newspapers" (paper presented to the Association for Education in Journalism, Boston, August 1980), p. 9.

²⁴Allan Fred, *Urban Growth and City-Systems in the United States, 1840-1860* (Cambridge, Mass., 1980), pp. 151-65.

²⁵Emerson Daggett, "History of Journalism in San Francisco," mimeographed report of the Works Progress Administration, San Francisco, 1939, 2:126.

²⁶E. D. Smith, Jr., "Communication Pioneering in Oregon," *Oregon Historical Quarterly* 39 (December 1938): 353-54.

months, but, instead of entire newspapers, the rider carried highly condensed digests of news in one-half-ounce slips.²⁷ News flowed from west to east, too. Some California newspapers prepared editions expressly for the overland mail, and, when they reached St. Louis, their contents were summarized and dispatched by telegraph to the East.²⁸ By steamer, stage, and pony express, the mails thus relayed news between the eastern and western coasts, until the telegraph spanned the continent in 1861. In a similar manner, exchanges helped ease the transition into the age of electrical news transmission for other parts of the developing nation—even Texas before it was admitted to the United States.²⁹

A New Functional Niche

When the telegraph tied a town into the expanding electric grid, daily newspapers in the area began to take some of their news from the wire. Speed, the one advantage of the telegraph, was achieved only at some sacrifice. Stories had to be summarized—even skeletonized and sent in code—to save on the expense of transmission. High costs of telegraphing stories also forced previously competitive newspapers to combine and hire a correspondent to prepare one story for all; accounts of events became standardized, whereas multiple, varied reports could have been obtained from the less restrictive letters and exchanges. The constraints on telegraphic news gathering created an important niche for exchanges and letters—they permitted the distribution of stories that were more complex, opinionated, and of interest to narrower audiences than those typically sent by telegraph. In niche theory, as news channels, the mails and the telegraph were now functionally differentiated.

Trouble-prone technology and the fitful development of the industry retarded the telegraph's wide-scale use by the press in its first three decades and left a niche for the mails as an instrument of news gather-

²⁷LeRoy R. Hafen, *The Overland Mail, 1849-1869* (1926; reprint ed. New York, 1969), pp. 189-90; Richard B. Kielbowicz, "Speeding the News by Postal Express, 1825-1861: The Public Policy of Privileges for the Press," *Social Science Journal* 22 (January 1985): 49-63.

²⁸See, e.g., *New York Times*, October 11, 1858.

²⁹For additional examples of news relay accomplished through a conjunction of the telegraph and postal exchanges, see Sam Acheson, *35,000 Days in Texas: A History of the Dallas News and Its Forebears* (New York, 1938), p. 28; George S. Hage, *Newspapers on the Minnesota Frontier, 1849-1860* (St. Paul, 1967), p. 23; David L. Lendt, *Demise of the Democracy: The Copperhead Press in Iowa* (Ames, 1973), p. 16; Thomas H. Baker, *The Memphis Commercial Appeal* (Baton Rouge, La., 1971), p. 33.

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ing. Six years after Morse's public demonstration of the telegraph, a tangle of technologies competed for funding and development. Exploiting uncertainties about patents, rival companies strung lines from city to city, with the object of selling stock often foremost in mind. By 1850, over fifty companies constituted the nation's telegraph network, causing long delays when a message had to be transferred from one line to another. Mechanical breakdowns and vandalism—shooting at wires and insulators became a common pastime—also combined to defeat the instantaneous transmission of some messages.³⁰

Not surprisingly, then, the costs of sending information by wire limited most use of the new technology to businesses and larger newspapers or combinations of papers. The Magnetic Telegraph Company's New York (actually Newark)-to-Philadelphia line charged 25¢ for every ten words when it opened in January 1846. Charges increased with distance. Shortly after lines reached Milwaukee, a ten-word telegram from Baltimore cost \$1.40.³¹ When telegraph service became available within California in 1853, charges were sometimes as high as \$2.00 for ten words.³² Before the Civil War, when transmission rates were quite high, businesses and financiers made the heaviest use of the telegraph, accounting for 50–70 percent of the revenues, according to various estimates. The press, sometimes enjoying discounted rates, made up at most 30–40 percent of the business, and much of the news it obtained dealt with commerce (other kinds of news commonly sent by telegraph will be discussed below). Personal messages probably generated less than 10 percent of the telegraph companies' revenues.³³

The cooperation and eventual consolidation of dozens of independent telegraph lines began in the early 1850s. As telegraph companies forged alliances, business and newspaper customers encountered fewer problems in the long-distance transmission of information. In 1856, the New York & Mississippi Valley Printing Telegraph Company reincorporated as the Western Union Telegraph Company. Western Union emerged from the Civil War poised to become the first major American industrial monopoly.³⁴ The improved service brought by

³⁰Daniel J. Czitrom, *Media and the American Mind: From Morse to McLuhan* (Chapel Hill, N.C., 1982), pp. 3–29; Fred (n. 24 above), pp. 151–65.

³¹Robert L. Thompson, *Wiring a Continent: The History of the Telegraph Industry in the United States, 1832–1866* (Princeton, N.J., 1947), p. 44 and plate opposite p. 254.

³²James D. Reid, *The Telegraph in America, Its Founders, Promoters and Noted Men* (New York, 1879), p. 500.

³³Richard B. Du Boff, "Business Demand and the Development of the Telegraph in the United States, 1844–1860," *Business History Review* 54 (Winter 1980): 459–79.

³⁴Thompson (n. 31 above), pp. 289, 405.

corporate consolidations had one disadvantage for the press. The New York Associated Press, long the dominant press agency, had shifted its lucrative business among competing telegraph lines to secure the best service and lowest rates. With the ascension of Western Union as a virtual monopoly, however, NYAP lost its leverage.³⁵

The first presidential message to be telegraphed in summary form illustrates the continuing value of the post office as an instrument of news gathering. President James K. Polk sent his declaration of war against Mexico to Congress on May 11, 1846. The next morning's *Philadelphia Public Ledger* carried an abbreviated version, sent by telegraph and railway express, which ended with the note that the complete text would follow in the mail. Telegraphic speed thus came at the expense of completeness. Use of the telegraph also reduced the variety of news reports available in competing papers, since the costs of news gathering and of the stories themselves were shared by forming press associations. Reports sent by telegraph from Washington and New York were standardized, and eventually the dispatches found in the papers of New Orleans, St. Louis, Charleston, Chicago, and other cities were identical.³⁶

A paper seeking something more than a homogenized account shared by several publications either bore the entire expense of telegraphic transmission itself or waited until a letter or exchange version came by post. Keenly aware of the high telegraph rates—up to 1¢ per character for early dispatches—editors admonished correspondents to send the gist of a story by wire and details by mail.³⁷ Sometimes editors resorted to the telegraph only to advise one another of important articles coming in the exchanges.³⁸ Stories of interest for their dramatic appeal could be sent unabridged by mail to preserve the colorful details. For this reason, Pittsburgh newspapers reported a sensational 1850 murder trial in Cambridge, Massachusetts, using accounts filed by mail and resorting to the telegraph only to learn the verdict.³⁹ Even in England, where distances and time lags in land transportation were comparatively small, the *London Times* admonished its correspondents,

³⁵Peter R. Knights, "The Press Association War of 1866–1867," *Journalism Monographs*, no. 6 (December 1967), p. 10.

³⁶Marbut (n. 12 above), pp. 77–79. See also Thompson (n. 31 above), pp. 217–39.

³⁷Alexander Jones, *Historic Sketch of the Electric Telegraph* (New York, 1852), pp. 130–31; Thomas E. Dabney, *One Hundred Great Years* (Baton Rouge, La., 1944), p. 83.

³⁸Osman C. Hooper, *History of Ohio Journalism, 1793–1933* (Columbus, Ohio, 1933), p. 6.

³⁹E. Douglas Branch, "The Coming of the Telegraph to Western Pennsylvania," *Pennsylvania History* 5 (January 1938): 27.

"Remember that telegrams are for facts; appreciation and political comment can come by post."³⁶

One by-product of both the telegraph and the accompanying rise of cooperative news agencies was the modern news form—the concise, supposedly impartial, inverted-pyramid story.³⁷ To the mails, therefore, was left the task of supplying features and political commentary. This was facilitated by extending the exchange privilege to magazines in 1852.³⁸ Magazines could now exchange with each other as well as with newspapers. Some dailies and weeklies took the opportunity to obtain free feature material. *Graham's Magazine*, for example, exchanged with 2,100 country papers in 1853. Magazines appreciated the notice they received in the press, but such long exchange lists could prove ruinously expensive.³⁹ Literary reputations were built in part on exchanges; such writers as Mark Twain and Bret Harte came to national attention because their contributions to small western papers were picked up and widely reprinted.⁴⁰ The mails, in short, functioned much like modern feature syndicates that supplement the hard, timely news now sent by teletype and satellite.

Long after telegraph lines linked major cities throughout the nation, newspapers used exchanges to obtain news from small towns in their state. In a fictional account, but one which reflects the actual practice of many papers, Mark Twain describes how he culled exchanges on the *Morning-Glory and Johnson County Warwhoop*: "He [the editor] told me to take the exchanges and skim through them and write up the 'Spirit of the Tennessee Press,' condensing into the article all of their contents that seemed of interest."⁴¹ The *Deseret News*, published in Salt Lake City, compiled a column headed "State News" from exchanges with country papers.⁴² The *Memphis Commercial Appeal*, which had borrowed liberally from many exchanges before the telegraph, by the 1870s used them only for news of the small communities around the city.⁴³ Coun-

³⁶Quoted in Robert W. Desmond, *The Information Process: World News Reporting to the Twentieth Century* (Iowa City, 1978), p. 326.

³⁷See three works by Donald L. Shaw: "News Bias and the Telegraph: A Study of Historical Change," *Journalism Quarterly* 44 (Spring 1967): 3-12, 31; "The Nature of Campaign News in the Wisconsin Press, 1852-1916," *Journalism Quarterly* 45 (Summer 1968): 326-29; and "Technology: Freedom for What?" in *Mass Media and the National Experience*, ed. Ronald T. Farrar and John D. Stevens (New York, 1971), pp. 64-86.

³⁸*Laws and Regulations for the Government of the Post Office Department* (Washington, D.C., 1952), p. 25.

³⁹Frank Luther Mott, *A History of American Magazines* (Cambridge, Mass., 1938), 2:12.

⁴⁰Paul Fatout, *Mark Twain in Virginia City* (Bloomington, Ind., 1964), pp. xii, 102-04; Alvin F. Harlow, *Bret Harte of the Old West* (New York, 1943), p. 243.

⁴¹"Journalism in Tennessee," in *Editorial Wild Oats* (New York, 1905), p. 13.

⁴²J. Cecil Alter, *Early Utah Journalism* (Salt Lake City, 1938), p. 304.

⁴³Baker (n. 29 above), p. 184.

try papers, especially the weeklies, remained especially indebted to exchanges for their news.⁴⁴ A trade journal estimated that the typical weekly in 1862 had a circulation of 1,000 copies, of which seventy-five were exchanges.⁴⁵

Perhaps most striking, the total number of publications exchanged did not drop with the advent of the telegraph. Just a year before Morse's successful demonstration of the telegraph, about 7 million exchanges circulated annually. Eight years later, nearly the same number was still being carried by post.⁴⁶ In the interim, of course, the number of newspapers and magazines in the country increased, which meant that the number of exchanges per periodical declined. Unfortunately, the aggregate data do not reveal which publications were making less use of exchanges (probably daily papers) or which continued to rely on them (probably weekly newspapers and magazines of various frequencies).

A content analysis of daily and nondaily papers from 1847 to 1860 confirms that the press still relied heavily on the mails to obtain news. Thirty percent of the stories were clipped from other papers that presumably came as exchanges, and the mails also brought letters, which furnished 6 percent of the stories, and contributions from correspondents, which provided 10 percent. During this period, only 8 percent of the stories came by telegraph. The remaining 47 percent were written by local reporters, the editor, or other sources.⁴⁷

That exchanges were essentially a cost-free method of news gathering best explains their persistence into the age of the telegraph. The improvement in the speed of mail transports was another reason for their continued use by editors increasingly concerned with timeliness. Where once all mail had moved at the speed of horses, more was being carried by railroad. In 1845, at the outset of the telegraph age, horses and horse-drawn vehicles were used for 81.8 percent of the 35.6 million miles the mails were transported; rail and steamboat, mainly the latter, furnished only 18.2 percent of the transportation. By 1860, railroads covered 37 percent of the 74.7 million mail-miles—more than any other single transport. Horseback and sulkeys were used for 32.7

⁴⁴See, e.g., Robert N. Elliott, Jr., *The Raleigh Register, 1799-1863* (Chapel Hill, N.C., 1955), p. 122; James H. Butler, "Indiana Newspapers, 1829-1860," *Indiana Magazine of History* 22 (September 1926): 324.

⁴⁵*The Printer*, February 1862, cited in David P. Forsyth, *The Business Press in America* (Philadelphia, 1964), p. 358.

⁴⁶Postal auditors reported that 7,073,548 exchanges were sent in 1852. *PMG Annual Report*, 1852, p. 26. See note 16 above for the 1843 estimate.

⁴⁷Shaw (n. 11 above), p. 39. The sum of these percentages is 101 percent because of rounding error.

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percent, stagecoaches 25 percent, and steamboats 5.3 percent.⁵² Even though exchanges could not match the instantaneous communication of telegraphy, the time lag in news flow declined as railroads were pressed into service to move the mails, and postal services were made a little more competitive with the telegraph in terms of timeliness.

Adjusting Public Policy

News gathering by mail exploited one resource—public policy—much more effectively than news-gathering services offered by the telegraph. The privilege of exchanging newspapers and later magazines without postage was probably the most important feature that enabled the mails to remain a viable means of news gathering in the face of competition from the telegraph. Once the telegraph proved its worth as an instrument of news transmission, however, postal officials stepped up their efforts to curtail the exchange privilege editors had long enjoyed.

Postmasters general looking for possible economies in postal operations recommended limiting and, in some cases, abolishing the editors' free exchanges. Postmaster General Johnson had asked Congress in 1845 to limit the numbers of exchanges a printer could receive. Taking another tack, the postmaster general in 1850 agreed that carrying exchanges was a desirable postal policy but asked that Congress appropriate the money lost to the department.⁵³

The most vigorous assault on continuing the policy of free exchanges was launched by Postmaster General Montgomery Blair in his 1859 annual report. Exchanges, he argued, imposed an unreasonable burden on the post office, and, as a device for obtaining news, exchanges should be considered part of the business expense of publishing a newspaper. It was, in effect, a government subsidy not bestowed on other businesses: "But as the government transports nothing free of charge to the farmer, the merchant, or the mechanic to enable them to prosecute successfully and economically their respective pursuits, why shall it do so for the journalist?" If this were a worthwhile subsidy, he concluded, Congress should be willing to appropriate money from the Treasury to cover the costs of carrying exchanges.⁵⁴ In response, *The Printer*, a trade journal, editorialized against "imposing a tax upon exchanges between publishers. . . ."⁵⁵

⁵²Kielbowicz, "News in the Mails" (n. 2 above), p. 254.

⁵³PMG Annual Report, 1852, p. 17.

⁵⁴PMG Annual Report, 1859, p. 20.

⁵⁵*The Printer*, March 1859, p. 264.

Almost thirty years after the invention of the telegraph, Congress eliminated the practice of carrying exchanges postage-free—a policy that had stood unaltered since 1758. In a sweeping bill passed on March 3, 1873, Congress repealed all laws that provided for the transmission of any kind of postage-free mail.⁵⁶ In the future, any editor who received a publication had to pay postage. The trade magazine *Printers' Circular* predicted that the free-exchange privilege would be restored at the next session of Congress and hoped that, in the meantime, the new law "will not be stringently enforced. . . ." Another magazine, the *Quadrat*, lamented the effect of the new law on the country press but told editors how to arrange for exchanges with each party paying postage on the publications it received.⁵⁷

Congress soon felt the wrath of state press associations, legislatures, and even some county and city governments. In 1873, at least four state editorial associations—those in Missouri, New York, Mississippi, and Wisconsin—adopted resolutions calling on Congress to restore the mailing privileges.⁵⁸ Soon after the Forty-third Congress convened, it was besieged with petitions—most representing rural interests—imploping it to reinstate the old arrangements; several specifically asked that free exchanges be permitted once again.⁵⁹

Contrary to the general feeling of the press, the *New York Sun* welcomed the "wholesome requirement." "The Sun will cease to be sent in exchange to any other paper, and will not receive exchanges. For all papers in different parts of the country that we require we propose to subscribe and pay, just like any other subscriber. . . ." This promised to be a more convenient and businesslike arrangement, the paper remarked. The *Sun*, a city daily, probably made little use of exchanges and could easily afford such a policy.⁶⁰

Although Congress restored various provisions of the old law favorable to the press, it left out the free-exchange privilege. The House considered numerous petitions calling for the reinstatement of this

⁵⁶Not only was the free-exchange privilege abolished, but the act also required that congressmen end their practice of franking mail and that weekly newspapers circulating within the county of publication pay postage when previously they had been delivered free. Act of March 3, 1873, 17 *U.S. Statutes at Large* 559.

⁵⁷*Printers' Circular*, May 1873, p. 99; *The Quadrat*, June 1873, p. 52.

⁵⁸William H. Taft, *Missouri Newspapers* (Columbia, Mo., 1964), p. 191; A. O. Bunnell, *New York Press Association: 1853-1903* (Dansville, N.Y., 1905), p. 18; *Proceedings of the Mississippi Press Association, from Its Organization, May 1866, to May 1884* (Jackson, n.d.), p. 70; *Proceedings of Wisconsin Editorial Association* (Madison, 1873), p. 36.

⁵⁹*Congressional Record*, 45d Cong., 1st sess., December 3, 1873-June 6, 1874, pp. 28-4468, esp. pp. 185-86, 504, 2380.

⁶⁰*New York Sun*, June 4, 1873, in Clippings about Newspapers (Library of Congress).

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longtime privilege, and eventually it passed a bill with such a provision. But the Senate version and conference-committee reports omitted any reference to exchanges, and they were never mentioned during the debates on the floor.⁶¹ As the *U.S. Postal Guide* interpreted the Post Office Act of June 23, 1874, "There is nothing in the postal law authorizing the free exchange of publications between publishers." Exchanges could still be mailed—if editors paid 2¢–3¢ per pound, depending on the frequency of publication, for bulk mailings.⁶²

Conclusion

The advent of the telegraph did not end the usefulness of the mails as a means of obtaining news, but it did cause some adjustments and dislocations. Both the change and persistence of the mails as an instrument of news gathering can be understood in terms of niche theory. The advent of the telegraph can be thought of as a new form entering an established communications environment. Both it and other forms, in this case the mails, had certain characteristics that determined the extent to which they competed or carved out another niche and coexisted.

Before the telegraph, a few publications, notably those in Washington, New York, and other eastern cities, built national reputations because their articles were reprinted by hundreds of other papers. Their utility as exchanges, however, declined as the telegraph pushed westward.⁶³ Publications at the terminus of the telegraph in turn became the most eagerly sought exchanges, spawning a two-step flow of news that relayed information until virtually the entire country was tied into the electric network. Coexistence in this arrangement is largely a function of the two news-gathering forms occupying different geographic niches.

Even when instantaneous communication was possible almost everywhere, the mails continued to provide valuable news-gathering services for the press. The nature of the telegraph put a premium on speed and brevity; the post office, on the other hand, still accommodated discursive, complex, colorful, and opinionated articles sent

⁶¹Most of the maneuvering in Congress took place during the later part of June 1874. See *Congressional Record*, 43d Cong., 1st sess., June 16, 1874–June 23, 1874, pp. 5026–5434.

⁶²*United States Official Postal Guide* (Washington, D.C., April 1875), p. 43.

⁶³According to economic historian Harold A. Innis, "Niles' Weekly Register had flourished with the exchange system and disappeared with the telegraph." "Technology and Public Opinion in the United States," in *The Bias of Communication*, ed. Innis (Toronto, 1951), p. 169.

either as exchanges or as letters. One channel of communication complemented the other because they occupied different functional niches in the system of news relay. Exchanges remained particularly attractive as a means of gathering news as long as policymakers agreed to transport them free, thereby shifting the cost from publishers to society. But, once the policy changed in 1873 and the vital resource of government subsidy was withdrawn, exchanges declined as an integral part of news gathering. Some newspapers continued to receive other publications but only by paying the regular second-class postage.

This case study represents a modest effort to apply niche theory in studying technological change and persistence. More ambitious applications are possible, too. Where fairly complete quantitative measures of a technology's growth are available, it may be possible to utilize niche theory's formal models as has at least one study of communications media.⁶⁴ The theory's ability to deal with change and continuity as well as a form's relationship to its human environment should make it especially attractive to historians seeking a dynamic framework through which to advance their inquiries.

⁶⁴Dimmick and Rothénbuhler (n. 6 above), pp. 103–19.