

Space and Culture

<http://sac.sagepub.com/>

Saving Time and Annihilating Space: Discourses of Speed in AT&T Advertising, 1909-1929

Jan Hadlaw

Space and Culture 2011 14: 85
DOI: 10.1177/1206331210389273

The online version of this article can be found at:
<http://sac.sagepub.com/content/14/1/85>

Published by:



<http://www.sagepublications.com>

Additional services and information for *Space and Culture* can be found at:

Email Alerts: <http://sac.sagepub.com/cgi/alerts>

Subscriptions: <http://sac.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations: <http://sac.sagepub.com/content/14/1/85.refs.html>

>> [Version of Record](#) - Feb 21, 2011

[What is This?](#)

Saving Time and Annihilating Space: Discourses of Speed in AT&T Advertising, 1909-1929

Space and Culture
14(1) 85-113
© The Author(s) 2011
Reprints and permission: <http://www.sagepub.com/journalsPermissions.nav>
DOI: 10.1177/1206331210389273
<http://sac.sagepub.com>



Jan Hadlaw¹

Abstract

In the early years of the 20th century, advertisements for the telephone—especially those created for the American Telephone and Telegraph Company (AT&T)—did far more than sell the public on telephone service. They can be seen as constituting a pedagogy of modernity that was instrumental in shaping modern conceptions of time and space in the social imagination. This essay draws on numerous examples of telephone advertising and illustrates how they deployed representations of time and space in the discursive construction of speed as a product of the telephone. The author argues that the tropes of speed engaged by these advertisements aligned the possibilities afforded by modern technology with the acceleration of capitalism itself.

Keywords

time and space, advertising, telephone, 20th century, social imagination

Perhaps more than any other modern technology, the telephone provoked the North American public to imagine new ways of thinking about and being in the world. The invention of the telephone in the late 19th century and its subsequent installation in offices and homes through the early years of the 20th century was accompanied by a proliferation of texts and images that made expansive and often contradictory claims for its role in transforming modern life. The telephone was presented not simply as a new way to communicate; it was simultaneously credited with the ability to bring together “all races in all climes” and blamed for the collapse of community and familial relations. It was identified, at one and the same time, as ameliorating and intensifying the sense of alienation associated with the new era. It was implicated, along with the telegraph, railroads, and electricity, in the rise of pathologies related to life’s increasing tempo even as it was being heralded for enabling businesses to expand with security and efficiency. These representations of the telephone reflected and were imbricated with larger debates about modern life. They were grounded in the real social conditions and concerns of the day. Historian Ida Tarbell noted that by 1878, the year that the first commercial telephone exchanges opened, “The American people were feeling the full impact of the new forces which had been remaking their economic life since the Civil War.”¹ Technology, industrialization, mass production, urbanization, and immigration were challenging traditional social conventions and expectations. There was

¹York University, Toronto, Ontario, Canada

Corresponding Author:

Jan Hadlaw, Department of Design, Faculty of Fine Arts, York University, 4700 Keele Street, 4008 TEL Building, Toronto, Ontario, Canada M3J 1P3
Email: jhadlaw@yorku.ca

very real disagreement over the values that would guide this new, modern America, and more often than not, technology acted as a site on which these negotiations played out. Dreams of unbounded economic and personal power, anxieties about social instability, and utopian longings for democratic communication were projected onto the telephone by electrical experts, the business community, the press, and the public alike and, in this way, came to have an impact on how the telephone was imagined and accommodated in daily life.

In the early years of the 20th century, advertising—itsself a product of transformations in technology, business, and social values—emerged as an authoritative source of information about modern products and possibilities. American Telephone and Telegraph (AT&T) was one of the first companies in the United States to use institutional advertising in mass-circulation magazines to build its reputation and shape public opinion.² These advertising campaigns were not intended to ‘sell’ telephone service to the public but rather to promote AT&T itself through “advertisements so attractive that the people will begin to look for the monthly story about the telephone.”³ The ads contributed to the public’s familiarity with the telephone and made telephony and AT&T virtually synonymous while simultaneously masking the limitations of AT&T’s networks and the broader social relations of power that underwrote the development of a continental telephone system. More significantly, these “stories” or narratives can be seen as forming a pedagogy of modernity that was instrumental in shaping new conceptions of time and space in ways that aligned the possibilities afforded by modern technology with the acceleration of capitalism itself.

My argument that advertising mediated a transformation in cultural conceptions of time and space is suggested by theories of representation put forward by French sociologist Henri Lefebvre and advanced by cultural theorist Fredric Jameson and historical geographer David Harvey. Lefebvre argued that each historical stage of capitalism has produced its own distinctive space that “permits fresh actions to occur, while suggesting some and prohibiting others.”⁴ For Lefebvre, social space is comprised not only of spatial practices and representations of space but also the spatial imaginary that shapes the perceptions of a given era and poses the conditions of possibility by which that era can be distinguished and defined. Following from Lefebvre, Frederic Jameson contends that representation—which he defines as “all forms of aesthetic production”—functions as an allegory, or symbolic expression, that offers a nuanced, if somewhat imperfect, rendering of social and economic relations at a given political-economic moment. As such, he argues, representation itself sets the terms for political and economic analysis. He writes that representation or, the “problems of figuration” that arise with

the passage from market to monopoly capitalism . . . conveyed by way of the growing contradiction between lived experience and structure, or between a phenomenological description of the life of an individual and a more properly structural model of the conditions of that experience.⁵

Telephone advertising sought to depict the new spatial, temporal, and ultimately social relations precipitated by the advent of electric communication. As representations, telephone advertisements did not invent the concepts they engaged; rather, they interwove emerging perceptions and themes arising in popular discourse to make sense of the new possibilities offered by the telephone. The influence of advertising on social conceptions of the world must be seen as taking place in collaboration with the many emerging practices and institutions of the late 19th and early 20th centuries. Yet telephony must also be appreciated as one of the modern communications media that quite literally transformed spatial and temporal relations and ultimately exacerbated the contradiction that Jameson describes between lived experience and the real conditions that support it.

It is for this reason, Harvey argues, that the study of representation should not be seen as simply incidental to historical analysis but rather that “the production of images and discourses is an important facet of [social] activity that has to be analyzed as part and parcel of the reproduction and transformation of any social order.”⁶ It is in the context of these arguments that I propose that representations of time and space in telephone advertising in the early decades of the 20th century can be seen as providing a pedagogy of modernity, in which the values of time and space embodied the logic of modern capitalism. AT&T’s campaigns took up the goal of influencing human minds and actions by employing metaphors of speed, instantaneousness, and immediacy that illuminated concepts of time and space in keeping with capitalism’s “great acceleration.” As such, these advertisements should be understood as narratives that simultaneously shaped perceptions of telephony and gave figural form to the novel concepts, experiences, and expressions of modern American capitalism.

Discourses of Speed

The tropes of speed employed in advertisements for the telephone system were not unique. Numerous other products and services advertised at the beginning of the 20th century articulated the rhetoric of progress and efficiency that pervaded modern society at large. Along with interpretations put forward by politicians, engineers, economists, philosophers, and novelists, these advertisements influenced how ideas about progress and efficiency came to be defined. Speed expressed the modern sensibility. It appeared to “modernize” every action, to enhance every transaction. In an era that social critics and commentators christened “the age of hurry” and the “most rapid age in history,” speed came to be regarded as an indispensable, or at the very least unavoidable, element of everyday life.⁷

It would be an error to think of speed as an arbitrary value. Speed’s attraction was neither aesthetic nor abstract, although it certainly took on aesthetic and abstract qualities as it captivated the popular imagination. The relationship between modernity’s fascination with speed and capitalism’s valorization of speed’s effect on the circulation of capital was not lost on advocates of industry or advertising. To the businessman of the late 19th century, this correlation was plainly obvious. Andrew Carnegie wrote in 1886 that the speed of capital expansion “was an attestation of [America’s] triumphant democracy.” “The old nations of the earth creep at a snail’s pace,” he declared, while “the Republic thunders past with the rush of the express.”⁸ In a speech to the New York Electric Club in 1889, Erastus Wiman, president of the Canadian telegraph system remarked: “If to accomplish things quickly, close transactions promptly, and generally to get through with things is a step toward a business man’s millennium, then we must be nearing that heavenly expectation.”⁹

Following World War I, the tempo of capitalism and everyday life accelerated rapidly. No one understood the significance of speed in the modern economy more clearly than advertisers. The author of an article appearing in *Advertising & Selling* in 1928 commented that it was perhaps not coincidental “that a large number of the fastest moving securities have been those of companies which provided us with speedier processes, transportation or conveniences”; his examples included “Dupont with quick drying Duco paint, the airplane manufacturers, the motors, the telephone and radio stocks.”¹⁰ Advertisers of the era recognized the allure of speed and its association with modern technologies, notions of progress, and optimism about the future, and they used it as a selling point for a disparate array of goods.¹¹ Eastman Kodak announced the new No. 1A Speed Kodak camera by proclaiming its ability to take “Speed Pictures” of “[t]he mile-a-minute automobile, express trains at full speed, race horses, [and] athletes at their highest strain.”¹² The Warner-Patterson-Perry Company advertised their shaving brush with the declaration “tis the speedy brush,” noting “you wouldn’t travel by ox-cart when an express train was available.”

The Hawaiian Pineapple Company promoted the superiority of their product by boasting that the canning of their pineapples proceeded with “Speed . . . speed . . . split-second speed.”¹³

The representations of speed that informed telephone advertisements during this era were doubly potent because they were not just linking speed with any arbitrary product. Unlike Warner-Patterson-Perry’s “speedy brush,” the telephone really did offer its users appreciable advantages of speed and efficiency in both business and domestic transactions. The telephone’s ability to annihilate distance “was not a science-fiction fantasy or some theoretical leap of physicists” writes cultural historian Stephen Kern:

It was the actual experience of the masses who quickly became accustomed to an instrument that enabled them to raise money, sell wheat, make speeches, signal storms, prevent log jams, report fires, buy groceries, or just communicate across ever increasing distances.¹⁴

Telephone advertisements gave form to the benefits and uses of speed and offered a way of imagining speed in the context of daily life. They presented an image of modern life that mimicked the ideals of capitalist circulation: a life where people, goods, and ideas were in constant motion. In doing so, these advertisements also implicitly warned businesses and businessmen against trying to resist the velocity and momentum of change for fear of being left behind—or worse in their estimation, of slowing down the nation’s financial growth. Telephone advertising circulated these meanings and came to reify them, so that even those who had no vested interest in supporting these concepts were made familiar with them and came to associate them with ideas of democracy, progress, and modernity.

Speed emerged as a trope in telephone advertising in the early years of the 20th century. Advertisements in the late 1870s had explained the workings of the telephone and proclaimed its clarity of transmission—a claim that was not always warranted. In the 1880s and 1890s, telephone advertisements appeared in newspapers or in telephone almanacs and directories, offering information on the cost of services and announcing new exchanges or long-distance connections, while continuing to promote the quality of the patented Bell telephone (Figure 1).¹⁵ In the early 1900s, telephone ads started to employ the idea of speed to describe particular relationships of time, space, and profit that the telephone made possible. One of the earliest examples is the advertisement “All Business Depends Upon Communication,” which appeared in 1903 (Figure 2). While lacking the modern layout and use of illustrations that came to characterize later ads, its use of metaphors of speed anticipated a representation of the telephone that would soon dominate both telephone advertising and the social imagination.

Unlike the earlier advertisements that promoted the physical attributes of the telephone, describing it as “neat and portable . . . and an ornament to any room or office,” or “superior in design and workmanship,” the 1903 ad focused instead on the telephone’s ability to alter the user’s experience of time and space. It did so by engaging two representational strategies that are significant for their correspondence to the ideals of modern capitalism. The first was the articulation of the speed of communication and profit: “The more rapid and certain the communication the better, and the more profitable the business. The telephone . . . affords the most rapid and certain communication possible to imagine.”¹⁶ By the end of the decade, telephone advertising would come to provide the public with ways of quantifying this relationship, and perhaps more critically, begin the process of displacing traditional conceptions about time with new modern values.

The second strategy can be seen in the advertisement’s representation of the telephone as mediating a new relationship between the telephone user and (geographic) space, one in which spatial (and temporal) barriers to communication have been dissolved: “With an extension

364 Montreal *The Star Almanac.* November 1893

THE

BELL TELEPHONE CO'Y

OF CANADA.

— HEAD OFFICE —

30 St. John St., = MONTREAL.

This Company will sell its instruments at prices ranging from \$7 to \$25 per set. Its "**STANDARD BELL TELEPHONE SET**" (protected by registered Trade Mark), designed especially for MAINTAINING a perfect service and used by the Company in connection with its Exchanges, is superior in design and workmanship to any telephone set yet offered for sale.

Subscribers to this Company's Montreal Exchange and the public may now obtain telephonic communication over its

Long Distance Metallic Circuit Lines to Quebec, Ottawa or Sherbrooke,

and intermediate points, the rates for the present being as follows:—

	SUBSCRIBERS.	PUBLIC.
TO QUEBEC - - -	60c.	\$1.00
TO OTTAWA - - -	50c.	75
TO SHERBROOKE - -	50c.	75

Silent Cabinets for conversations are provided at the Company's Montreal Agency Office, 1730 NOTRE DAME STREET, where full information regarding rates and places connected may be obtained.


Figure 1. Bell Telephone Company of Canada advertisement, 1893. "The Bell Telephone Co'y of Canada," *The Star Almanac*, Montreal (November). (BCHC File:Advertising. Reproduced with permission of the Bell Canada Historical Collection)

station on your desk you have half the country at your elbow." The metaphor echoes the shrinking of (national) space to a human scale, under human command, an achievement that was effectively realized with the emergence of national markets. The advertisement's allusions to the telephone as transportation are also noteworthy in this respect. "Nothing," claimed the ad "moves so swiftly as the telephone. . . . The quickest way of getting over the ground is to sit still and use the telephone. A journey by telephone will give you a taste of ideal rapid transit." The depiction of the telephone as a mode of transportation both linked it to and distinguished it from the railways. It gave the impression that the telephone system, like the railway, was national in its scope

STATOR SATURDAY DECEMBER 19 1903

The Bell Telephone Company of Canada
Limited

**ALL BUSINESS
DEPENDS UPON
COMMUNICATION**



The more rapid and certain the communication the better, and the more profitable the business.

**The Telephone
Service**

Affords the most rapid and certain communication possible to imagine. Nothing moves so swiftly as the Telephone; and the Extension Telephone is THE SWIFTEST of all Telephones.

**With An
Extension
Station**

On your desk you have half the country at your elbow.

Telephone service adds to the comfort of the household, lessens the laborious details of housekeeping by bringing the tradesmen within immediate and constant reach of the orders.

The Quickest Way
Of getting over the ground is to sit still and use THE TELEPHONE.

**A Journey
By Telephone**

Will give you a taste of ideal rapid transit.
Travel Is Expensive. Low Rates.
Talk Is Cheap. Perfect Service.

For particulars Call the Contract Department No. 430.
Hamilton, Dec. 19, 1903.

Figure 2. Bell Telephone Company of Canada advertisement, 1903. "All Business Depends Upon Communication." (BCHC File: Bell Ads 1900-1919. Reproduced with permission of the Bell Canada Historical Collection)

despite the fact that this would not be the case for over a decade. Conversely, it also acted as a reminder that the separation of transportation and communication was a relatively recent phenomenon; and that unlike railway travel, telephone communication transcended material limitations and truly “annihilated” space.¹⁷

While it might be argued that the discourses of speed employed by the advertisement were simply creative devices, it is difficult to overlook their resonance during this period of rapid and unpredictable capital expansion. This is underlined by the fact that in 1903, advertisements (like the telephones themselves) were not yet standardized. Individual licensees or telephone companies typically produced their own advertising—or rather purchased space in publications and arranged to have their advertisements produced by the printers.¹⁸ The earliest examples of references to speed in advertising were not the result of a coordinated marketing plan but rather appeared because they ‘made sense’ in the context of the era’s sensibility and logic. It can be argued that they also made sense in another way: they created ways of imagining the new temporal and spatial coordinates of life in the modern world.

Time and Money

By 1909, AT&T’s advertising employed complex articulations of speed to describe the telephone’s impact on the new relations of time and space. In the advertisement, “The Implement of the Nation,” the benefits of speed were subsumed by the notion of “efficiency” and the Bell System presented as the medium through which efficiency, at the level of the individual and the corporation, was translated into national productivity and wealth (Figure 3).

The increased efficiency of the individual, . . . the increased efficiency of the nation as a whole, because of the development of the Bell system, can hardly be estimated. . . . The modern corporation itself could not exist without telephone service of national scope. . . . The wheels of commerce have been kept at the necessary speed to provide this swift development by the universal telephone.

Although the telephone network was largely regional at this time, the advertisement relied on allusion to the railway’s “wheels of commerce” to create images of speed, time, and space that compensated for the telephone’s limitations of scale. One of the most intriguing elements of this advertisement is the temporal accounting that it performed. By allowing the businessman to address urgent business matters without resorting to the expense of “either a messenger or a personal visit,” the ad argued that the telephone not only saved time, it created wealth.

The mere item of time actually saved by those who use the telephone means an immense increase in the production of the nation’s wealth every working day in the year. Without counting the convenience, without counting the wonderful increased efficiency, but just counting the time alone, over \$3,000,000 a day is saved by the users of the telephone! Which means adding \$3,000,000 a day to the nation’s wealth!

While the equation of time and money was not a new idea—the concept was operative since mid-18th century when Benjamin Franklin famously declared that “time is money”—here the telephone was being shown as mediating an even more abstract calculation.¹⁹ Rather than labor time being seen as money (and time not spent working perceived as a loss), the telephone was represented as transforming time spent *not* working into a source of value. The calculation of a \$3,000,000 profit on the basis of labor *not performed* is perplexing until one considers this new speculative value of time in relation to the growth of fictitious capital that accompanied the

The Implement of the Nation

AMERICAN TELEPHONE & TELEGRAPH CO.
AND ASSOCIATED COMPANIES
BELL SYSTEM

SECRETARY of War Stanton sat in his office in Washington.

"If I ring that bell," he said, "any man, in the most distant State, is a prisoner of war!"

The telephone bell has succeeded the messenger bell.

Business has succeeded war.

If any man in the Union rings the bell of his Bell Telephone at his desk, any other man at the most distant point is at his instant command.

That is the Bell Companies' ideal—that you may take the receiver off the hook and get into communication with any man, even in the most distant State.

That is the really universal telephone that the Bell Companies set as their goal at the beginning. It is so far realized that already 20,000,000 voices are at the other end of the line, all reached by the one Bell system.

The increased efficiency of the individual, of the lawyer or bank president or corporation official; the increased efficiency of the nation as a whole, because of the development of the Bell system, can hardly be estimated.

It certainly cannot be overestimated.

The president of a corporation to-day could not be the president of such a corporation without it.

The modern corporation itself could not exist without telephone service of national scope.

Corporation officials could not have transacted business quickly enough by old methods to reach the totals which alone are accountable for our remarkable commercial development as a nation.

The wheels of commerce have been kept at the necessary speed to provide this swift development by the universal telephone.

The mere item of time actually saved by those who use the telephone means an immense increase in the production of the nation's wealth every working day in the year.

Without counting the convenience, without counting this wonderful increased efficiency, but just counting the time alone, over \$3,000,000 a day is saved by the users of the telephone!

Which means adding \$3,000,000 a day to the nation's wealth!

The exchange connections of the associated Bell Companies are about 18,000,000 a day—the toll connections half a million more. Half of the connections are on business matters that must have prompt action—either a messenger or a personal visit.

Figured on the most conservative basis, the money value of the time saved is not less than ten cents on every exchange connection and three dollars on every toll, or long distance connection—figures that experience has shown to be extremely low.

The saving in time only is thus \$1,800,000 daily on exchange messages and \$1,500,000 on long distance messages—this much added to the nation's productiveness by the Implement of the Nation, the Bell Telephone.

American Telephone & Telegraph Company

Figure 3. AT&T advertising proof, 1909. "The Implement of the Nation." (File I, box I, series I, N.W. Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

emergence of national markets, the expansion of trade, the birth of the modern corporation, and the transformation from market to monopoly capitalism.

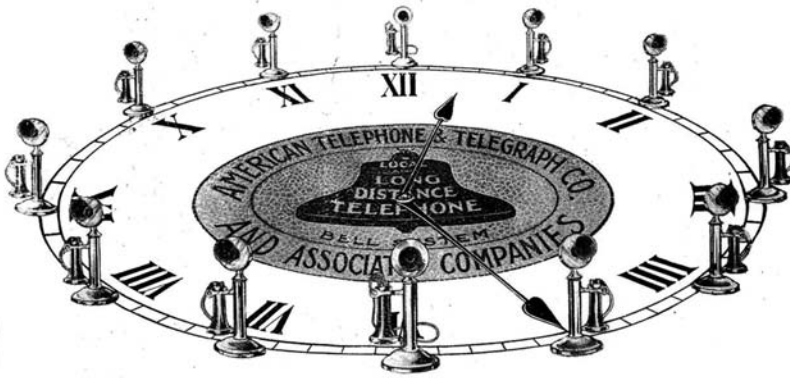
Such a representation of time can only be deployed if time (and space) is emptied of its social value or meaning—that is to say, its perceived value is independent of its use—leaving it available to take on a new and purely economic significance.²⁰ This requires that time and space be conceived in purely abstract terms, the value of each minute and every mile standardized and

also conceived as a unit of measurement of that value. It is not coincidental that AT&T and its operating companies accomplished just this in the process of calculating the rates for long distance communication.

This new manifestation of temporal and spatial logic had two consequences that had a profound impact on how modern time and space were conceived (and ultimately lived). The first consequence of the abstraction and standardization of time's value can be likened to the effect of the division of labor as a means of generating absolute surplus value. With each minute having the same relative monetary value as the next, minutes became interchangeable and the entire 24-hour day—not just the traditional workday—could be imagined as a zone for commercial activity. While electricity, especially electric lighting, had already extended the workday into the night, its diffusion had not imposed an absolute value on increments of time in the way that the commercialization of telephone service—and especially long-distance service—would. Prior to the coming of the telephone, the partition of the day into work and family time was somewhat safeguarded by the physical separation of the business and the domestic spheres. Even the telegraph, because its use in the United States was largely restricted to the workplace, did little to challenge the partition between public and private domains. The telephone, as it became increasingly common in both offices and homes, disturbed these boundaries, so that time previously reserved for rest, relaxation, and social activities came to be opened up for all manner of commercial uses. Hence, the 1910 advertisement, aptly titled “The Always-on-Duty Telephone,” declared that the “Bell System is on duty 1440 minutes a day,” and noted ominously that “if any of these minutes are not used, their earning power is irrevocably lost” (Figure 4). As the 1,440-minute-day expanded the potential for profit, it also increased competition and established new expectations. An advertisement with the headline “Telephoning Against Time” described the modern American as active, forceful, and demanding: “When seconds count, Americans look to the telephone for *immediate* service. . . . They have no time to think of the *tremendous load* that is put upon the telephone system. They are not interested in the *means*. They demand *results*” (Figure 5). The advertisement explained that the Bell System Companies would realize immense savings if calls placed during the busiest calling times could be delayed and placed during periods of lower demand. But the expense of an “always on duty” telephone system was justified, the copy continues, because without it “the nation’s talk would *lose in its race against time*, and the whole telephone service of the country would be demoralized.”

The second consequence of the telephone’s abstraction of time and space was the conflation of the political and economic well-being of the nation. Both “The Implement of the Nation” and “Telephoning Against Time” render nation and market synonymous. National space is represented as an undifferentiated space through which “talk,” goods, and capital circulate. The first advertisement’s estimation that time saved by using the telephone adds \$3,000,000 a day to the *nation’s* wealth obscured the fact that, just as America’s transportation and communications systems were privately owned, so too was the wealth that they generated. In this same vein is the second advertisement’s association of accelerated flows of information with national progress. In this case, the advertisement does not identify profit as the reason for racing against time but there is little doubt that this is what it means.

For business, speed’s ultimate ideal is the “annihilation of space by time” or “instantaneousness” because—as Erastus Wiman commented in 1889—“[t]here is no competition against instantaneousness.”²¹ Telephone companies—both AT&T and the independent telephone companies—were acutely aware of the telephone’s competitive advantage and they used the idea of speed to promote the telephone at every opportunity. AT&T’s advertisements advised the public on the telephone’s ability to provide “The Instantaneousness Answer” and described how it “Saves Time and Steps” and “vitalizes affairs by instilling into them the spirit of NOW” (Figures 6 and 7). Stromberg-Carlson publicized the benefits of its switchboard with the headline “Service



The Always-on-Duty Telephone

Your Bell Telephone is on duty 1440 minutes every day. So is the telephone exchange; so are the toll lines which radiate through the neighboring communities; so are the long distance lines which connect you with far-away cities and other radiating systems.

The whole Bell System is on duty 1440 minutes a day—and if any of these minutes are not used, their earning power is irrevocably lost.

Like the Police Force or the Fire Department, the telephone is not always working—but it is always on duty and always costing money. But you would not be satisfied with the fire department if your burning house had to take its turn; nor with the police force if you had to wait in line to receive protection.

You want service at once. That is exactly what the Bell System endeavors to give you—immediate attention, instantaneous service. It strives to be always ready to receive your call at any point, and connect you with any other point—without postponement or delay.

It would be much cheaper if telephone customers would be content to stand in line, or if their communications could be piled up to be sent during slack hours; or if the demand was so distributed as to keep the whole system comfortably busy for 1440 consecutive minutes a day.

But the public needs immediate and universal service and the Bell System meets the public's requirements.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

Figure 4. AT&T advertisement, 1910. "The Always-on-Duty Telephone," *Town and Country* (14 May). (Box 1, Warsaw Collection of Business Americana—Telephone. Reproduced with permission of Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

in the Modern Tempo" and Strowager Automatic's advertisement, titled simply "Speed," cautioned readers that because business proceeded "at a pace undreamed of by the business man of thirty or forty years ago, seconds or minutes lost in the transmission of intelligence now often mark the difference between success or failure" (Figures 8 and 9). In an AT&T advertisement titled "The Efficient Minute," an oversized desk set stands paramount over a lineup of modern means of transportation—a steamship, a train, a tramcar, and an automobile, with an airplane

TELEPHONING AGAINST TIME



The American Demand for Prompt Service During the Busy Hour

WHEN seconds count Americans look to the telephone for *immediate* service.

At certain hours during the day everybody wants to talk at the same time and telephone calls come thick and fast. People become impatient of the slightest delay.

They have no time to think of the *tremendous load* that is put upon the telephone system. They are not interested in the *means*. They demand *results*.

The way that the Bell Companies have met this demand has made Bell Service the standard of excellence the world over.

To meet the requirements for the *busy hour* the entire system must be in perfect condition. Every operator must be on duty and keyed up to concert pitch. Every emergency must have been foreseen and provided for.

The promptness of American telephone service inspires the wonder of European visitors. They see an American call up a correspondent in a distant city with as much confidence as he calls his next door neighbor.

When the New Yorker says "Wait a minute until I telephone to Washington," his guest, judging by his own transatlantic experiences, is *prepared to wait an hour*.

Even the American does not appreciate what instantaneous service has cost. He does not realize that it means that the company must

have at instant command a separate line for each customer everywhere, at the rush hour.

Frequently one man talking over a long distance Bell line has the exclusive use of \$300,000 worth of equipment.

No one else can use it while he is using it.

Talking from New York to St. Louis his voice travels over one million pounds of copper wire.

This is his own private, one-passenger, talk road while he is using it.

Each *additional circuit* demanded by the extra business means an *additional investment* in copper wire—a large expense for surplus plant, which is only used for a short period each day.

If during the busy hour the Associated Bell Companies could postpone each successive call for half an hour—string them out through the day—an enormous saving of expense could be made.

But the nation's talk would *lose in its race against time*, and the whole telephone service of the country would be demoralized.

This investment in extra facilities means that American out-of-town service is a matter of seconds, where minutes and hours are required in any other country.

As much as any other feature of American life this long distance service of the Associated Bell Companies is the measure of the unique progress of the country.

American Telephone & Telegraph Company

Figure 5. AT&T advertising proof, 1910. "Telephoning Against Time." (File 1, box 1, series 1, N.W. Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

circling above, while the copy affirms that "the Bell Telephone is quickest of all. It is *instantaneous*. . . [It] has placed a new and higher value upon the minute" (Figure 10).

The concept of speed as a calculation of abstract time is evident in many advertisements created in the early decades of the 20th century, but Bell System advertisements continued to make use of temporal calculations well past mid-century as a means to illustrate the telephone's convenience for subscribers, to introduce improvements to service, and to proclaim the importance



Sending a message is only half of the transaction. The other, and equally important, half consists in *getting back the answer*.

Sometimes this is a reply to a question, or the acceptance or rejection of a proposal. Sometimes it is simply an acknowledgment that the message has been received.

The value of the message depends upon getting an answer.

When a general manager sends word to a representative in a distant city, he wants to know that his

man is *there*, that he *receives the message*, and that he will act.

If the answer is not final, but raises another question, there is no delay. The other question can be settled at once. It is possible, in one telephone interview, to come to a decision which could not have been reached without the instantaneous answer.


Each answer is made *instantaneous* by the Bell telephone service.

The Bell system, with its ten million miles of wire, provides the instantaneous answer for anybody, anywhere, at any time.

Increased use of the Long Distance Telephone means greater results in every line of human endeavor. Telephone efficiency means One Policy, One System, Universal Service. Every Bell Telephone is the Center of the System.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

Figure 6. AT&T advertising proof, 1910. "The Instantaneous Answer." (File 1, box 1, series 1, N.W. Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)




Saves Time and Steps

Last year the Bell Telephone System handled Six Billion calls—or one hundred and ninety *for every second*. If each message meant a saving of only ten minutes time—a most conservative estimate—it means that in 1909 the Bell System saved to the American people, *time equivalent to 114,155 years*.

In other words the Bell System rendered a service which would take an individual messenger 114,155 years to accomplish.

A saving of ten minutes per call does not begin to represent the saving of time and steps even in the message



across the street—much less the saving in the long distance message across the country.

Nor does the mere saving in time begin to represent the comfort, the convenience, the *dispatch* afforded by these six billion messages sent from the five million Bell stations all over the country.

The Bell System *gets things done*. It vitalizes affairs by instilling into them the spirit of NOW. Makes the business of tomorrow the transaction of the minute. Makes thoughts *facts*. Economizes a Nation's time. Conserves a Nation's energy.

The Bell Long Distance Service has broadened the scope of a Nation's interests. Has given the minute a value of many. Has given the people a hold on time. Has brought Opportunity within grasping distance. Has accelerated the growth of the NATION.

American Telephone and Telegraph Company and Associated Companies
For Rates and Other Information Regarding Service, Call the District Manager

The Central District and Printing Telegraph Company
BELL SYSTEM




Figure 7. AT&T advertising proof, 1910. "Saves Time and Steps." (File 1, box 1, series 1, N.W. Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

of innovation and research.²² An advertisement produced in 1910 employed this form of speculative accounting to declare that in the previous year "the Bell Telephone System handled Six Billion calls—or one hundred and ninety *for every second*. If each message meant a saving of only ten minutes time . . . it means that in 1909 the Bell System saved [the] *time equivalent to 114,155 years*" (Figure 7). The strategy was employed again in 1928 in an advertisement that identified technological improvements made to the Bell System as responsible for speeding up connection times: by trimming over one and a half minutes off each of the "6,820,000 long distance and toll calls made in Kansas in 1927," it calculated the benefit of "a total of twenty years saved" (Figure 11). In 1959, an advertisement calculated the value of Bell Labs' research by

Service in the modern tempo

The tempo of modern life is constantly accelerating. We demand faster automobiles, railways, aeroplanes, and other modes of transportation. Greater speed is the order of the day in business. Faster service is required from public utilities. But with this speed must also come a proportionate increase in accuracy and efficiency.

Nowhere are these features more closely associated than in the Stromberg-Carlson Super-Service Switchboard which is doing its share in hundreds of telephone exchanges to meet the fast tempo demanded by telephone subscribers.

Much of this is accomplished as a result of the simplified keyboard which relieves the operator from a large amount of mental and physical effort and eliminates the causes of the most common operator mistakes. A single key for each ringing frequency is selected accurately by touch. No time or effort is consumed by associating key and cord . . . consequently, fast, accurate service is assured.

Let Stromberg-Carlson engineers explain fully why the Stromberg-Carlson Super-Service Switchboard is the most efficient and economical telephone switching equipment.

Write for Bulletin 112

Stromberg-Carlson Telephone Mfg. Co.
 Factory and General Office:
 ROCHESTER, N.Y., U.S.A.
 Offices: KANSAS CITY, MISSOURI CHICAGO, ILLINOIS TORONTO, CANADA

Stromberg-Carlson

Figure 8. Stromberg-Carlson advertisement, 1929. "Service in the Modern Tempo," *Telephony* (6 July): 4-5

Speed

EVEN before the days of Caesar and Hannibal, speed was an all important factor in the transmission of messages. Decisive victories in battle were won by commanders whose runners were swifter than those of the opposing forces, and who thus had knowledge of important events hours and sometimes days before their enemies.

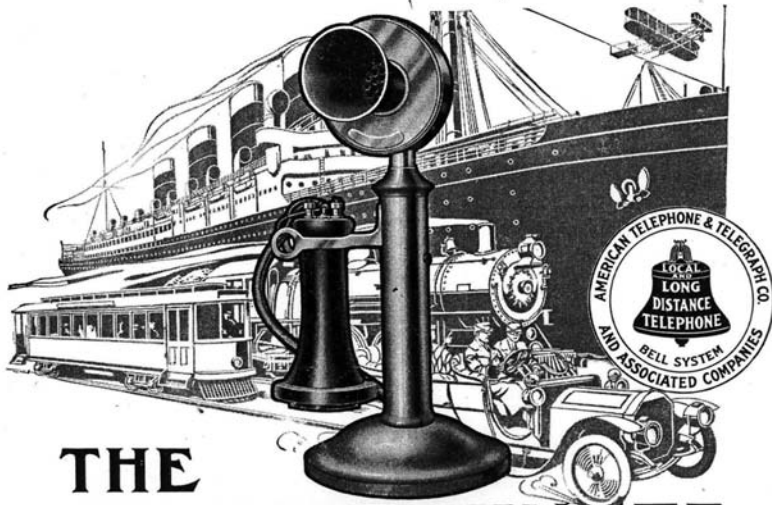
In modern business, the time element in the transmission of messages is even more important than it was in former days. With projects undertaken and transactions completed at a pace undreamed of by the business man of thirty or forty years ago, seconds or minutes lost in the transmission of intelligence now often mark the difference between success and failure.

By its one contribution of increased speed to telephonic communication, the growing adoption of Strowger Automatic telephone equipment is more than justified. But when it is also realized that in addition to speed it brings secrecy, machine-like accuracy and increased efficiency and convenience to telephony, its importance in modern business and social life is more truly appreciated.

Automatic Electric Inc.
 Factory and General Office: 1233 W. Van Buren St., Chicago, U.S.A.
 Sales and Service Offices in All Principal Cities
 EXPORT MANUFACTURING
 For Appointments - Automatic Telephones, Ltd.
 Engineers - Automatic Electric Company, Limited

STROWGER AUTOMATIC

Figure 9. Strowger Automatic advertisement, 1928. "Speed," *Telephony* (2 June): 26-27



THE EFFICIENT MINUTE

We have speeded up our ships and railways; we have made rapid transit more and more rapid; we have developed a mile a minute in the air and much faster in an automobile.

But the Bell Telephone is quickest of all. It is *instantaneous*. No weeks or days or minutes wasted in waiting for somebody to go and come; no waiting for an answer.

It is the most effective agency for making minutes more useful, more efficient.

In almost every field of work men are accomplishing more in less time with the Bell Telephone than they could without it. They can talk with more people, near and far; they can keep the run of more details; they can buy or sell more goods, and to better advantage; they can be active in more affairs.

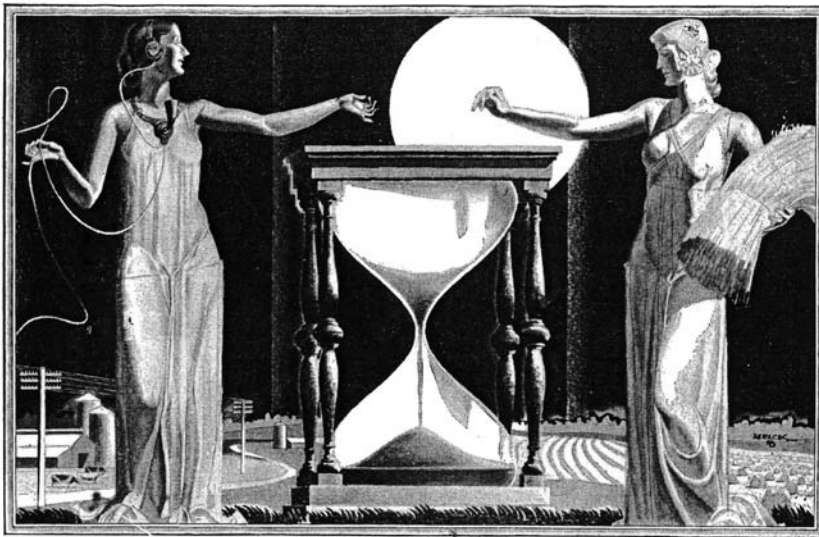
The Bell Telephone has placed a new and higher value upon the minute—for everybody. It has done this by means of One Policy, One System, and Universal Service.

Bell Long Distance Telephone service not only gives an added value to a man's minutes—it accomplishes business results which would be absolutely impossible without it. Every Bell Telephone is the Center of the System.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

Figure 10. AT&T advertising proof, 1910. "The Efficient Minute." (File 1, box 21, series 1, N.W. Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

noting, "Telephone Research 'Saves' 77 Years" (Figure 12). Even though the factors involved in these calculations varied, the representation of time that underwrote them—fragmented, interchangeable, and uniform—remained constant. It resonated with the expansion and acceleration of capitalism itself: the speeding up of communication commensurate to the increased velocity of the circulation of capital that it encouraged and made possible.



Kansas saves Twenty Years

*An Advertisement of
the American Telephone and Telegraph Company*

MORE than three hundred studies are being carried on constantly by the research, engineering and business staffs of the American Telephone and Telegraph Company and the associated companies of the Bell System to accomplish definite improvements in telephone service.

In 1927 the number of local calls not completed on the first attempt was reduced by 5 per cent. This means the better handling of 200,000,000 calls a year.

In 1926 the average time of handling toll and long distance calls was 2 minutes. In 1927 this average was reduced to 1½ minutes, with further improvements in voice transmission.

On 6,820,000 long distance and toll




calls made in Kansas in 1927 an average reduction of a minute and a half was made on each call—a total of twenty years saved. These more than three hundred special studies have as their goal definite improvements in local, toll and long distance service. It is the policy of the Bell System to furnish the best possible service at the least cost to the user.

The American Telephone and Telegraph Company accepts its responsibility for a nation-wide telephone service as a public trust. It is fundamental in the policy of the company that all earnings after regular dividends and a surplus for financial security be used to give more and better service to the public.

Figure 11. AT&T advertising proof, 1928. "Kansas Saves Twenty Years." (File 3, box 21, series 1, N.W. Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

Whether framed as "saved time," efficiency, instantaneousness, or convenience, speed was the product sold by these ads and, like all commodities, it was mute about the conditions of its production. It is true that increases to the speed of telephone communications were produced through technological improvements to the telephone and the telephone system, which enhanced the reliability of connections and allowed operators to handle a greater number of calls more quickly. But this acceleration was more often the result of human engineering than electrical



How telephone research "saves" 77 years

When the boy Galileo first observed the regular motion of a cathedral lamp set swinging by the wind, he had no idea of inventing the pendulum clock. But he jotted down a thought he had.

Not until 77 years later did Christian Huygens pick up his notes and apply to an actual clock the pendulum principle first observed by young Galileo: no matter how far a pendulum swings, its movement takes the same amount of time.

The creative thinker of today, too, does not always have a specific use in mind when, by equation or formula, he branches off from the known into the unknown. The classic invention of this decade, the Transistor, evolved in Bell Telephone Laboratories as scientists sought a deeper understanding of semiconductors.

On the other hand another great invention, the feedback amplifier, came from the acutely creative mind of one Bell engineer who was faced with a specific problem.

Current Bell Laboratories activities—in such areas as data transmission, radar and submarine cable development—call for the co-ordinated efforts of all types of thinkers and all types of approaches. One type complements another.

77 years would not elapse today between the swinging lamp and the clock pendulum. And certainly not at Bell Laboratories, where ideas, though not rushed, are carefully advanced toward fruitful applications in national defense, industry and communications.

An important result of this application of new ideas is the efficiency of America's telephone system—an efficiency unequalled in the world.

BELL TELEPHONE SYSTEM




Figure 12. AT&T advertising proof, 1959. "How Telephone Research 'Saves' 77 Years." (File 4, box 15, series 1, N.W. Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

engineering: telephone speed came at a human cost. The remarkable time savings and profits for users publicized in AT&T advertising were largely made possible by applying the principles of scientific management to the working conditions of operators, and included the use of supervisors and service inspectors to monitor speed-of-answer and speed-of-call-handling, and penalties for operators who did not achieve the expected rates of calls per hour.²³

In addition to the discursive production of speed as time savings, early 20th-century telephone advertising also expressed speed as a relationship, or ratio, of time and space. Here, speed was the product of the telephone's ability to "annihilate" space by time—the obstacle of distance to

the rapid circulation of capital overcome by telephone's "instantaneity" and the telephone as a means of mastering space.

The Mastery of Space: The Landscapes of Capital

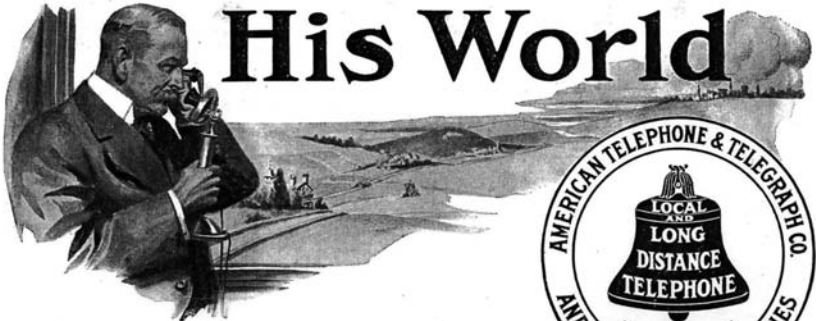

Roland Marchand tells us that one of the most stereotyped scenes to appear in the advertising of the 1920s was the image of the modern man at work. "Again and again he reappeared in a setting so predictable that it became one of advertising's contributions to the nation's store of visual clichés. . . . His minimal but sufficient props," Marchand notes, "included a telephone, the inevitable window, and a pristinely uncluttered desk."²⁴ Advertisers for a wide range of businesses—among them, Goodrich Tires and Gulf Refineries—employed this visual blueprint to connote power, distinction, and control over the future. Marchand observed that the combined symbolism of the telephone and the "window-with-a-view" "inspired the welling up of a feeling best epitomized by the phrase, 'master of all he surveys.'"²⁵

Corporate advertising of the 1920s was able to use the telephone as a symbol of power and prestige because that meaning had already been put into circulation by early telephone advertisements. In fact, the "master of all he surveys" tableau Marchand describes emerged well before the 1920s. The image of a businessman speaking on a telephone while surveying a panoramic view made its first appearance in AT&T advertisements over a decade earlier. But unlike Marchand's newly minted 1920s white-collar professionals, the businessmen of the AT&T ads were railway presidents and business magnates, whose dominion of space was tangible and had truly been abetted by the telephone.

The 1909 advertisement "In Touch With His World" tells the story of the modern railway president who uses the telephone to stay in command of his system even as he "spends the greater portion of the summer at his country home renewing his energy" (Figure 13). The image depicts an elegantly attired man, candlestick phone in hand, surveying the view from a large window. The window is, in fact, so large that its frame is visible only at a point directly behind his back, so that the partition between the railroad president and the landscape is insubstantial and yielding. The view from the window is of open fields and gently rolling hills. In the far distance, in the upper right hand corner of the image, is a city with billowing smokestacks and chimneys. The advertising copy notes: "He may be one hundred miles or more away from headquarters, yet his office and the principal business centers of the country are within talking distance." The image and copy capture the sensibility of the advertisement's headline: one's world no longer need be defined in terms of one's location but could now be organized in ways that defied the real coordinates of physical space. In other words, the value of the telephone lay less in that it made it possible to speak to anyone-anywhere, and more in that it permitted its users to connect with only those people and places they deemed important, and to forgo the time-consuming niceties that traditional forms of social interaction required.

It is important to recognize the degree to which the telephone's development—and the resulting transformations of perceptions and experiences of time and spaces—was influenced by class interest and organized by the principles of capitalist circulation. Telephone advertising of this period was eloquent in addressing these interests. "In Touch With His World" does not recommend the time-saving virtues of the telephone to all citizens but rather to those men—the "railway president, merchant, manufacturer, or professional man"—who commanded space in economic terms, who sought to speed up circulation and overcome the profit-draining effects of distance. Their class position reflected the status (and the aspirations) of those people who were the early subscribers of the telephone, and they were also the group that would be most likely to assess the value of the telephone in the terms imagined in this advertisement and to use the telephone in ways that would be most profitable for AT&T.

In Touch With His World

The railroad president to-day spends the greater portion of the summer at his country home renewing his energy. He keeps in touch with his railroad system over the telephone.

He may be one hundred miles or more away from headquarters, yet *his office* and the *principal business centers* of the country are *within talking distance*.

He is notified immediately when anything important occurs; his advice and direction are asked and given *over the telephone*; the machinery of the road goes on.

Each day, at the noon hour or in the early morning or late afternoon, he conducts his business over the long distance line.

He is in touch with his world.

Through the day he has been renewing his energy—sailing, driving, or playing golf—making himself *more fit for the busier season* and able at all times to handle a larger system and a larger volume of business than the railroad president of two decades ago.

This is simply an illustration which *applies to every busy man*, whether he be railroad president, merchant, manufacturer or professional man.

It shows the importance of universal service, which is the constant aim of the Associated Bell Companies—of *one system*, extending to every nook and corner of the United States, keeping *all localities* within speaking distance of one another.

***Long Distance Bell Service is universal in two ways—
in its extension to all localities and in its application
to all human activities. Whatever your interests, it
will advance them economically, certainly, constantly.***

The American Telephone and Telegraph Company
And Associated Companies

One Policy, One System, Universal Service

Figure 13. AT&T advertising proof, 1909. "In Touch With His World." (File 1, box 21, series 1, N.W. Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

An advertisement from the following year, aptly titled "Annihilator of Space," represents a markedly different set of spatial relationships (Figure 14). The businessman is no longer held at a remove from the landscape by a window frame but rather reaches over it. Here, the landscape in question is a map of the United States. The businessman is seated at the map as if at a desk, candlestick telephone resting in the vicinity of New York and Boston, his arm extended to point to Chicago. Whereas the copy of the earlier ad referred to telephone connections linking "principal

Annihilator of Space



To be within arm's reach of distant cities it is only necessary to be within arm's reach of a Bell Telephone. It annihilates space and provides instantaneous communication, both near and far.

There can be no boundaries to a telephone system as it is now understood and demanded. Every community is a center from which people desire communication in every direction, always with contiguous territory, often with distant points. Each individual user may at any moment need the long distance lines which radiate from his local center.

An exchange which is purely local has a certain value. If, in addition to its local connections, it has connections with other contiguous localities, it has a largely increased value.

If it is universal in its connections and inter-communications, it is indispensable to all those whose social or business relations are more than purely local.

A telephone system which undertakes to meet the full requirements of the public must cover with its exchanges and connecting links the whole country.

The Bell Telephone System annihilates space for the business man to-day. It brings him and any of his far-away social or business interests together.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy,

One System,

Universal Service.

Figure 14. AT&T advertising proof, 1909. "Annihilator of Space." (File 1, box 21, series 1, N.W. Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

business centers," the 1910 ad asserts that "[t]here can be no boundaries to the telephone system as it is now understood and demanded." Here telephone space is represented as "contiguous territory" not as a network of differentiated places.

The representational expansion of the telephone's domain is noteworthy. Whereas the 1909 ad depicted the telephone's reach as extending to neighboring cities "one hundred miles or more

away,” the advertisement of 1910 represents the telephone’s territory as equivalent to the geographic space of the nation. Perhaps surprisingly, this new figuration of the telephone system did not reflect either new technological developments or an expansion of the telephone network. What *had* occurred in 1910 was the finalization of a purchase organized by AT&T president Theodore Vail in which AT&T acquired control of 30% of Western Union Company stock—an acquisition that blocked Western Union from establishing a competing telephone network and effectively gave AT&T what could be called a “spatial monopoly” as the dominant provider of national telephone service.²⁶ In that its key function was to insulate the company from the deleterious effects of competition, Bell’s spatial monopoly was similar to its earlier patent monopoly, but with the crucial difference being that AT&T’s strategic control of space gave it enormous authority over how the American telephone system would develop, as well as how and by whom it would be used. Although AT&T was forced to liquidate its holdings in Western Union on March 19, 1914, in compliance with the terms of the Kingsbury Commitment—an agreement between AT&T and the Attorney General of the United States which terminated an antitrust suit brought against AT&T by the Justice Department—by that time it had succeeded in gaining mastery of national space in very real terms.

With the 1912 advertisement “Your Telephone Horizon,” AT&T’s colonization of the spaces of representation broke through national borders (Figure 15). The ad depicts a businessman surveying a global landscape, its horizon line following the earth’s curvature. As was the case in 1910, the advertisement’s transcontinental allusions were not matched by real capability—the first transcontinental telephone line would not open for service until January 25, 1915—but its allusions to expanded boundaries for the telephone user are suggestive of AT&T’s aggressive program of corporate expansionism and Vail’s “One Policy, One System, Universal Service.”

It would be an error to dismiss the representations of space in these advertisements as idiosyncratic or irrelevant. Taken as a series, these three ads act as figural equivalents of the spatial transformations that accompanied—and indeed were fundamental to—the expansion of capitalism at this moment in time. As the spatial domain of the businessman increased through the elimination of barriers to circulation, so did his distance to his markets. The relationship between the businessman and the landscape in these representations is resonant of the increasing dematerialization and abstraction of the marketplace and the difficulty of reconciling an individual’s experience of everyday life with the social conditions of its production.

The telephone’s conquest of space ultimately reproduced and inscribed relations of class in social space. As businesses expanded and head offices began to locate at a distance from factories and plants, there emerged new geographically inscribed relations between owners and workers, between white-collar and blue-collar activities. The telephone helped create new economic landscapes in very tangible ways. Wealth and power increasingly came to be concentrated within key urban centers drawing on resources (including labor) situated in (or relegated to) outlying areas.

The 1909 advertisement advised the businessman that the time saved by conducting business at a distance could be put to use by “renewing his energy—sailing, driving, or playing golf, making himself more fit for the busier season and able at all times to handle a larger system and a larger volume of business than the railroad president of two decades ago” (Figure 13). Likewise, the 1910 advertisement promoted the telephone as “indispensable to all those whose social or business relations are more than just purely local” (Figure 14). It is noteworthy that in these early ads time saved by “annihilating space” translated into time for leisure. As business use of the telephone became more common and was no longer restricted to the entrepreneurial class, time savings no longer accrued to the telephone user but rather came to be represented as time available to increase output. In an advertisement from 1933 titled “For the Salesman . . . Extra Arms and Longer Legs,” the reader is advised that “speed . . . means repeat business” and allowed for increased productivity: “[w]here formerly each salesman averaged six personal visits a day, he



Your Telephone Horizon

The horizon of vision, the circle which bounds our sight, has not changed.

It is best observed at sea. Though the ships of today are larger than the ships of fifty years ago, you cannot see them until they come up over the edge of the world, fifteen or twenty miles away.

A generation ago the horizon of speech was very limited. When your grandfather was a young man, his voice could be heard on a still day for perhaps a mile. Even though he used a speaking trumpet, he could not be heard nearly so far as he could be seen.

Today all this has been changed. The telephone has vastly extended the horizon of speech.

Talking two thousand miles is an everyday occurrence, while in order to see this distance, you would need to mount your telescope on a platform approximately 560 miles high.

As a man is followed by his shadow, so is he followed by the horizon of telephone communication. When he travels across the continent his telephone horizon travels with him, and wherever he may be he is always at the center of a great circle of telephone neighbors.

What is true of one man is true of the whole public. In order to provide a telephone horizon for each member of the nation, the Bell System has been established.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

Every Bell Telephone is the Center of the System.

Figure 15. AT&T advertising proof, 1912. "Your Telephone Horizon." (File 1, box 21, series 1, N.W. Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

now makes six personal visits plus twenty telephone calls" (Figure 16). The illustration that accompanied these observations shows a map of the United States in which geographic space is sectioned off and given a dollar value.²⁷ Beside each city's name is a price—the cost of long-distance communication calculated on the basis of its distance from New York (and Wall Street). This image is noteworthy because it represented precisely what AT&T had accomplished with the creation of its Long Lines division and the establishment of transcontinental service: it

FOR THE SALESMAN . . .

Extra arms and longer legs

The map shows telephone rates, exclusive of tax, for daytime station-to-station calls. Between 7:00 P.M. and 8:30 P.M., daytime station-to-station rates over 35 cents are reduced by 10 to 20%. Between 8:30 P.M. and 4:30 A.M. the rates are about 40% less than for daytime calls.

BUSINESS is scattered over wider areas these days. Salesmen have to see two or three times as many people to get the same volume. They just can't afford to spend a large part of each day waiting in outer offices and calling upon people who aren't available.

Through the systematic use of Long Distance telephone service, many companies are greatly increasing the effectiveness of their sales efforts. This is like giving the salesmen extra arms and longer legs—it enables them to cover their territories much more quickly and inexpensively, and at the same time visit many more customers and prospects.

The Telephone Will Find Your Prospect

The telephone serves them as scout in locating sales possibilities in nearby and distant towns. Without neglecting their present customers, salesmen can focus their efforts on securing new business in those districts that are changing for the better. They can arrange to be on the ground when orders are being placed and can handle the orders with a speed which means repeat business. From all over the country come reports of unusual

successes—achieved by companies both large and small—through the *organized* use of Long Distance, as worked out in co-operation with the telephone company. Here is an example:

6% Increase in Yearly Sales

The Consolidated Products Company, large dealer in used machinery, reduced sales costs by 10% and increased yearly sales by 6% through a Long Distance plan developed by the telephone company. Where formerly each salesman averaged six personal visits a day, he now makes six personal visits *plus* twenty telephone calls.

The Atlantic Refining Company says: "Long Distance gets results at lowest cost." Sparks-Withington Company: "Thoroughly convinced of its effectiveness, not only in the promotion of new business, but in the proper handling of production and distribution problems."

The organized use of Long Distance gets the approval of both salesmen and executives, because it brings such big returns in increased sales and reduced expenses. The Business Office of your local Bell Company will gladly give further information.

Figure 16. AT&T advertising proof, 1933. "For the Salesman... Extra Arms and Longer Legs." (File 4, box 20, series I, N.W.Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

inscribed national space with a cash/value ratio. Here not only time equals money but so does space, with the value of both determined by the telephone and AT&T.²⁸

Telephone advertising also provided a way in which the public could imagine the expanded boundaries of "the modern world" and come to terms with the new international scope of the economic and political power relations that defined monopoly capitalism. AT&T produced hundreds of advertisements that document the telephone's increasingly dramatic "annihilation of space by time," its colonization of global space, and its homogenization of (cultural) difference. A particularly compelling example is the 1935 advertisement with the headline "Around the

World in 1/4 Second!” (Figure 17). Above the headline floats a two-dimensional image of a globe, the five continents shown from a vantage point high above the North Pole. Beside and slightly behind the globe sits a telephone. A loose ribbon in the background, suggestive of telephone wires encircling the world, appears as though it is about to be used to wrap up the globe like a parcel or gift. New York—located close to the center of the image thanks to a skillful compression of the Arctic—is linked with San Francisco, Randoeng in Java, Amsterdam, and London by a ring of tiny lightening bolts that completes its circuit back at New York. The lightening bolts symbolize the speed of electrified speech, and its alacrity is reproduced in the staccato of the ad copy:

It is 9:30 A.M. in New York City. The President of the American Telephone and Telegraph Company is sitting at a desk. Fifty feet away, in another office, a Vice-President of the Company is at his desk. The President picks up his telephone and speaks. Faster than you could ever imagine, his voice speeds across the continent to California—where it is only 6:30 in the morning.

The voice leaves the telephone wires, and, magnified many millions of times by short wave radio, hurdles the rolling Pacific. 9000 miles from San Francisco, at romantic Java in the Dutch East Indies, the voice gathers new energy and rushes 7000 miles toward England—traveling the last lap by submarine cable under the North Sea.

The hands on Big Ben, in London, show 2:30 in the afternoon as the voice leaves England and leaps the Atlantic to Netcong, New Jersey, U.S.A. A few miles more, by telephone cable, and the head of the Bell System is heard by his associate—whose reply is traveling over the same route but in the opposite direction! For the first time in history, men’s voices have girdled the globe in a two-way conversation . . . and in only one-quarter of a second.

It is noteworthy that this advertisement was designed to appear in popular children’s magazines—one of a series that undertook to explain the telephone to a youthful readership. These ads were fashioned as primers on topics that might be of interest to the school-aged child, such as the manufacture of the telephone or the scientific principles behind its invention. But they were also eloquent, in words and images, about the ways in which the telephone had altered the temporal and spatial coordinates of the modern world, and transformed social relations. This advertisement’s reference to Jules Verne’s 1916 novel *Around the World in Eighty Days* was no doubt meant to appeal to the youthful readers of the magazine, but the allusion also acts to summon up images of travel that, by comparison, seem both slow and quaint. In Verne’s novel, set in 1872, the characters use all kinds of conveyances including trains, air balloons, ships, and steamers to travel from place to place in their race to circumnavigate the globe in 80 days. In contrast, the telephone that appears in the advertisement—quite appropriately a stylish handset telephone with all its connotations of modernity—is no less than a time-and-space machine that allows one to “travel” around the world instantaneously.

Telephone advertising can be seen as a second moment in the production of the telephone, a moment when the telephone comes to be constructed in its image form. The discourses of speed that informed telephone advertising at the early years of the 20th century gave the public ways of imagining the new spatial and temporal coordinates of the modern world and familiarizing themselves with the accelerating tempo of modern life. More than simply promote telephone service, they described new protocols and practices for capitalist competition and illuminated the attendant transformation of social relations. Because it captured—and defined—modernity’s sensibility and aesthetic, advertising played a significant role in shaping the public’s understanding and, ultimately, experience of speed and the transformation of modern life.

Writing in 1915, Earnest Elmo Calkins, sometimes called the “father of advertising,” observed that advertising “modifies the course of people’s daily thoughts, gives them new words, new



IT is 9:30 A. M. in New York City. The President of the American Telephone and Telegraph Company is sitting at a desk. Fifty feet away, in another office, a Vice-President of the Company is at his desk. The President picks up his telephone and speaks. Faster than you could ever imagine, his voice speeds across the continent to California—where it is only 6:30 in the morning.

The voice leaves the telephone wires, and, magnified many millions of times by short-wave radio, hurdles the rolling Pacific. 9000 miles from San Francisco, at romantic Java in the Dutch East Indies, the voice gathers new energy and rushes 7000 miles across Asia and Europe toward England—traveling the last lap by submarine cable under the North Sea.

The hands on Big Ben, in

London, show 2:30 in the afternoon as the voice leaves England and leaps the Atlantic to Netcong, New Jersey, U. S. A. A few miles more, by telephone cable, and the head of the Bell System is heard by his associate—whose reply is traveling over the same route but in the opposite direction! For the first time in history, men's voices have girdled the globe in a two-way conversation . . . and in only one-quarter of a second.

It is unlikely that you will ever ask such service from your telephone. But it is thrilling to think of the possibilities in that black instrument standing so calmly on the table in your living-room. At any moment of the day or night, because of the facilities offered by the Bell System, you can speak by telephone to almost any one, anywhere in the world!



B E L L T E L E P H O N E S Y S T E M

Figure 17. AT&T advertising proof, 1935. "Around the World in 1/4 Second!" Original inscribed: Inst. Juvenile Boys & Girls Sept. & Oct. Release Cut. (File 1, box 21, series 1, N.W. Ayer Advertising Agency Record. Reproduced with permission of the Archives Center, National Museum of American History, Behring Center, Smithsonian Institution)

phrases, new ideas, new fashions, new prejudices and new customs.”²⁹ It is important, though, to recognize that the relationship between advertising and the creation of cultural knowledge is not a straightforward one. The dramatic changes that accompanied the introduction of new systems of industrial production, increasingly rapid transportation, and long-distance communication had no context within conventional perceptions and traditional practices of the late 19th century. Advertisements served both as sources of information and sites for negotiation about the meaning of these changes. By mediating the reality of telephone communication and how that experience could be imagined and understood, telephone advertising can be seen as constituting a cultural pedagogy of modern time and space.

While the diffusion and use of new technologies must be seen as having the greatest effect on users’ perceptions, the impact of advertising on the public imagination should not be underestimated. Through its images and texts, advertising circulated ideas about modern values and acted to interpret the meaning and experience of electric communication. When considered in the context of cultural and social events, the representation of the telephone as “a *speed* instrument” in advertisements and popular media offered important insights into the values and debates of the modern era.³⁰ While these advertisements do not directly reflect how people used the telephone, they do show us how the public was encouraged to imagine its potential and allow us to speculate on how they might have made sense of it in relationship to the spaces and places of everyday life.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

Funding

The research presented in this article was supported by Canada’s Social Sciences and Humanities Research Council and a Smithsonian Institution Fellowship.

Notes

1. Tarbell (1936, p. 1).
2. The N. W. Ayer and Son Company produced what is widely held to be the first institutional advertising campaign for New York Mutual Life Insurance Company in 1905, following a crisis of public confidence. See Laird (1998, p. 238).
3. AT&T President Theodore N. Vail hired N. W. Ayer and Son to produce a series of institutional advertisements for AT&T in 1908, beginning a relationship that would continue for most of the 20th century. See Griese (1977, p. 20).
4. Lefebvre (1991, p. 73).
5. Jameson (1988, p. 348).
6. Harvey (1989, p. 355).
7. Willam Osler (1907) and Stuart Chase (1931) as cited in Tichi (1987, p. 231).
8. Carnegie (1886) as cited in Tarbell (1936, p. 8).
9. Wiman (1889, p. 3).
10. Giles (1928, p. 23).
11. Advertisers were also aware of the problems associated with the increasingly frenzied pace of the economy. In 1927, a self-promotional advertisement for the Calkins and Holden Agency alerted potential clients to the perils of the quickening economic pace:

Your world is being recreated by three important influences; first, the closeness of science and discovery to commercial manufacturing; second, the shortness of the link between the manufacturer and the consumer; and third, the amazing speed with which the American public makes up its mind to change its mind.

Writing that same year, adman Robert Updegraff observed that as “life has become swifter,” people became “less patient, more restless.” The public was “quicker to take up new ideas, to sample new products, to test new services—but quicker also to toss them aside.” Business failures were common as new social practices and habits replaced traditional ways, and competition between businesses for new products and for new markets increased. Updegraff noted that

if the American public has grown so busy, and so accustomed to telephones for communication that it is losing the art of social correspondence and consequently the demand for fine social stationary is falling off somewhat disconcertingly, no mere matter of advertising ingenuity is going to make people return to old habits of correspondence.

Updegraff counseled businessmen and promoters that success depended on their ability to keep pace with the market, urging them to develop “a new sales or distribution policy or method more in line with the new American tempo and temper”—in other words to fight speed with speed. See Caulkins and Holden Inc. (1927) and Uppengraff (1927).

12. Eastman Kodak, “Speed Pictures—Kodak Convenience.” In *Country Life in America*, 1910.
13. Warner-Patterson-Perry Company, “—tis the speedy brush.” In *Collier’s*, 1919. Hawaiian Pineapple Company, “Speed . . . speed . . . split-second speed . . .” In *Good Housekeeping*, 1927. Both reproduced in Tichi (1987, pp. 237-238).
14. Kern (1983, p. 214). Also consider Casson’s (1910) characterization: “The telephone is above all else a speed instrument” (p. 271).
15. Before telephone companies began to print directories, new subscribers’ names and telephone numbers would appear in advertisements in local newspapers. See Figure 1.
16. First reference from Bell Telephone Company of Canada, “The Telephone. Time and Distance Overcome!” (Bell Canada Historical Collection, 1877). Second from “The Bell Telephone Co’y of Canada” (Figure 1). Third from ““All Business Depends Upon Communication” (Figure 2). “Bell Canada Historical Collection, file” Subscriber Advertising.
17. As James Carey (1989) points out that until the invention of the telegraph in 1837, the term “‘communication’ was used to describe transportation as well as message transmittal for the simple reason that the movement of messages was dependant on their being carried on foot or horseback or by rail” (pp. 203-203).
18. Interestingly though, AT&T had established what amounted to a nationwide clipping service by the end of the 1900s. AT&T licensees clipped any stories about the telephone industry that appeared in newspapers published in their territory and sent them to company headquarters. This archive proved to be very useful once AT&T began advertising systematically as it allowed them to track and compare public response to each ad campaign. See Marchand (1998).
19. Benjamin Franklin not only equated time spent working with money but also proposed a conception of unproductive time as a negative cost, a tangible loss against potential profit.

He that can earn ten shillings in a day by his labor, and goes abroad, or sits idle, one half of that day, though he spends but sixpence during his diversions or idleness, ought not to reckon that the only expense; he has really spent, or rather thrown away, five shillings besides. (From Benjamin Franklin, *Advice to a Young Tradesman* [1748] as cited in Adam [1995], p. 87).

20. On the qualities of modern time, see Lefebvre (1991).
21. Wiman (1889, p. 2).
22. Contemporary representations of the telephone continue to employ the idea that savings of transaction time can be accumulated and converted into working capital. In a 1990 article on mobile offices in the financial magazine *Money*, a Los Angeles attorney is quoted as saying that his cell phone and mobile fax machine have “added two hours to my day and 25% to my annual gross.” James Katz cites a 1993 survey of cell phone users by Motorola that reports its findings in similar terms. Those canvassed

- claimed that a cellular phone “added 0.92 hours to their productive working day [and] increased their own or their company’s revenues by 19 percent” (Katz, 1999, p. 20).
23. Numerous social historians of the telephone have documented the highly gendered regimes of worker control employed by the telephone industry in order to create system efficiencies. See especially, Green (2001) and Martin (1991). On the symbiotic relationship between human and technological engineering, see Noble (1977).
 24. Marchand (1985, p. 238).
 25. Marchand’s phrase “master of all he surveys” is the referent for my description of these images as examples of a new mastery of space (Marchand, 1985, p. 239).
 26. The transaction occurred on December 20 although the negotiations began much earlier. Vail had been named president of Western Union on November 23, 1910, and held that position simultaneously with his presidency of AT&T until April 15, 1914, when he stepped down as head of Western Union. His resignation followed the sale of AT&T’s holdings in Western Union on March 19, 1914 (AT&T Archives, 1992, pp. 31-33).
 27. It is noteworthy that two Canadian cities, Montreal and Toronto, were included in this map. While this did reflect the fact that many US businesses had dealings with Canadian companies in these two cities, a more significant reason for their inclusion was likely because Bell Canada—a de facto subsidiary of AT&T—was the dominant telephone service provider in Montreal and Toronto.
 28. This ad is interesting for the way in which it designates the center and the peripheries of the business world. I did not find a corresponding map showing prices for calls originating in the west although it may well have been produced. Nonetheless, locating New York–Boston–Philadelphia at the center of the economic universe did have a certain resonance in respect to the transportation and communications networks of the day, and it was true most of all for AT&T. The inscription of long-distance prices on a national map can also be seen as the “privatization” of national space by AT&T—in that public space is used for private profit. On this point, the following assessment by Marx and Engels (1970) is notable: “Division of labour and private property are . . . identical expressions: in the one the same thing is affirmed with reference to activity as affirmed in the other with reference to the product of the activity” (p. 53).
 29. Laird (1998, p. 355).
 30. Herbert N. Casson (1990) coined this term in *The History of the Telephone* (p. 271).

References

- Adam, B. (1995). *Timewatch: The social analysis of time*. Cambridge, England: Polity Press.
- AT&T Archives. (1992). *Events in telecommunications history*. Warren, NJ: American Telephone and Telegraph Company.
- Carey, J. W. (1989). *Communication as culture: Essays on media and society*. Boston, MA: Unwin Hyman.
- Carnegie, A. (1886). *Triumphant democracy*. New York, NY: Scribner.
- Casson, H. N. (1910). *The history of the telephone*. Chicago, IL: A. C. McClung.
- Caulkins and Holden Inc. (1927, June 29). Your world has changed. *Advertising and Selling*, p. 15.
- Giles, R. (1928). Buying for a rise in tomorrow’s product trends. *Advertising and Selling*, p. 23.
- Green, V. (2001). *Race on the line: Gender, labor, and technology in the Bell system, 1880-1980*. Durham, NC: Duke University Press.
- Griese, N. L. (1977). AT&T: Nation’s oldest continuous institutional advertising campaign. *Journal of Advertising*, 6(3), 18-24.
- Harvey, D. (1989). *The condition of postmodernity. An enquiry into the origins of cultural change*. Oxford, England: Basil Blackwell.
- Jameson, F. (1988). Cognitive mapping. In C. Nelson & L. Grossberg (Eds.), *Marxism and the interpretation of culture* (pp. 347-360). Chicago: University of Illinois Press.
- Katz, J. E. (1999). *Connections: Social and cultural studies of the telephone in American life*. London, England: Transaction.

- Kern, S. (1983). *The culture of time and space, 1880-1918*. Cambridge, MA: Harvard University Press.
- Laird, P. (1998). *Advertising progress: American business and the rise of the consumer market*. Baltimore, MD: Johns Hopkins University Press.
- Lefebvre, H. (1991). *The production of space* (D. Nicholson-Smith, Trans.). Oxford, England: Blackwell.
- Marchand, R. (1985). *Advertising the American dream: Making way for modernity, 1920-1940*. Berkeley: University of California Press.
- Marchand, R. (1998). *Creating the corporate soul: The rise of public relations and corporate imagery in American big business*. Berkeley: University of California Press.
- Martin, M. (1991). "Hello Central?" *Gender, technology, and culture in the formation of telephone systems*. Montreal, Ontario, Canada: McGill Queens Press.
- Marx, K., & Engels, F. (1970). *The German ideology*. New York, NY: International Publishers.
- Noble, D. (1977). *America by design: Science, technology, and the rise of corporate capitalism*. New York, NY: Alfred A. Knopf.
- Tarbell, I. M. (1936). *The nationalizing of business 1878-1898: Vol. IX. A history of American life*. New York, NY: Macmillan.
- Tichi, C. (1987). *Shifting gears: Technology, literature, culture in modernist America*. Chapel Hill: University of North Carolina Press.
- Updegraff, R. R. (1927, April 20). Tomorrow's business and the stream of life. *Advertising and Selling*, pp. 44, 49.
- Wiman, E. (1889, June 15). Speech to the New York Electric Club. *Electrical Review*, p. 3.

Bio

Jan Hadlaw is an assistant professor in the Department of Design at York University in Toronto, Ontario, Canada. Her research interests focus on design and everyday life, 20th-century consumer culture, and the history of technology. Her current research project examines the role played by design in the construction of Canadian national identity in the 1960s and 1970s.