

communication +1

Volume 4
Issue 1 *Occult Communications: On
Instrumentation, Esotericism, and
Epistemology*

Article 11

September 2015

Spiritualist Writing Machines: Telegraphy, Typtology, Typewriting

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The origin of modern spiritualism is often identified as the famous “Hydesville rappings,” which took place in a small town near Rochester, New York, in 1848. This was the first public occasion when Margaret and Kate Fox allegedly channeled spirits, who answered a series of questions using “rapping” or “knocking” sounds to indicate affirmative and negative responses. As news of this miracle spread across the country, it inspired a new religious movement that was based on a widespread belief in the possibility of technological communication with the dead. By 1867 there were reportedly 11 million spiritualists in the U.S. (roughly a third of the population) and 35,000 practicing spirit mediums,¹ which led Theodore Parker to predict that spiritualism would soon become “the religion of America.”²

Historians typically link the rise of spiritualism to unsettling social conditions, a sudden influx of immigrants, and the rise of industrialization. Geoffrey Nelson notes, for example, that “technical modifications may cause considerable disruption or even a complete breakdown in the traditional cultural pattern of a primitive society,” and “of all areas of the country, change was probably more rapid in [western New York]” because “[w]ithin twenty years this area had changed from a frontier settlement to the beginning of industrial development.”³ Werner Sollors similarly argues that mid-nineteenth-century Americans feared that technological innovations would “transform modern man himself into a machine,”⁴ and spiritualism represented an attempt “to sacralize, and find transcendental meaning in,” these new technologies.⁵ The spiritualist movement has thus been interpreted as an attempt to restore a spiritually-based social unity that would counteract the divisive and fragmentary influences of modernity. However, some historians also argue that spiritualism was inspired by a growing dissatisfaction with Christianity, as Laurence Moore explains:

Most leading spiritualists...never wavered from four principles: a rejection of supernaturalism, a firm belief in the inviolability of natural law, a reliance on external facts rather than on an inward state of mind, and a faith in the progressive development of knowledge. In so doing, they struck a responsive chord among

¹ Emma Hardinge, *Modern American Spiritualism: A Twenty Years' Record of the Communion between Earth and the World of the Spirits* (New York: Hardinge, 1870), 13.

² Qtd. in John Weiss, *Life and Correspondence of Theodore Parker*, vol. 1 (New York: D. Appleton and Company, 1864), 428.

³ Geoffrey K. Nelson, *Spiritualism and Society* (New York: Schocken Books, 1969), 73.

⁴ Werner Sollors, “Dr. Benjamin Franklin’s Celestial Telegraph, or Indian Blessings to Gas-Lit American Drawing Rooms,” *American Quarterly* 35.5 (1983): 462.

⁵ *Ibid.*, 470.

many Americans who had rejected orthodox Christian theology and who believed that life posed a limited set of questions with rational, discoverable answers.⁶

Richard Noakes similarly argues that “supporters of spiritualism embraced late-nineteenth century machine cultures,” as “[t]hey saw technology as a symbol of social progress.”⁷ Historians thus disagree as to whether spiritualism represented an attempt to resist or embrace the secularizing forces of modernity.

Nevertheless, historians generally agree that the rise of spiritualism was closely linked to the development of new media technologies in the nineteenth century. Friedrich Kittler argues, for example, that “the invention of the Morse alphabet...was promptly followed by the tapping specters of spiritistic séances sending their messages from the realm of the dead.”⁸ Jeffrey Sconce similarly argues that spiritualism was “a logical elaboration” of the telegraph’s “supernatural” characteristics:

Talking with the dead through raps and knocks, after all, was only slightly more miraculous than talking with the living yet absent through dots and dashes; both involved subjects reconstituted through technology as an entity at once interstitial and uncanny. Spiritualism attracted the belief of many converts because it provided a technically plausible system of explanation for these seemingly occult occurrences.⁹

Kittler and Sconce thus conclude that spiritualism was directly inspired by the invention of electrical telegraphy, which promised to facilitate communication across virtually unlimited distances. However, other historians have recently begun to challenge this approach. For example, Stefan Andriopoulos has outlined what he describes as “a more nuanced, post-Kittler approach that does not claim to reconstruct a comprehensive a priori—be it cultural or technological.” Instead, there is a “reciprocal interaction between the newly emerging technology and

⁶ R. Laurence Moore, “Spiritualism and Science: Reflections on the First Decade of the Spirit Rappings,” *American Quarterly* 24.4 (October 1972): 485.

⁷ Richard Noakes, “‘Instruments to Lay Hold of Spirits’: Technologizing the Bodies of Victorian Spiritualism,” *Bodies/Machines*, ed. Iwan Rhys Morus (London: Berg, 2002), 126.

⁸ Friedrich Kittler, *Gramophone Film Typewriter*, trans. Geoffrey Winthrop-Young and Michael Wutz (Stanford: Stanford University Press, 1999), 12.

⁹ Jeffrey Sconce, *Haunted Media: Electronic Presence from Telegraphy to Television* (Durham, NC: Duke University Press, 2000), 28.

spiritualist research,” which “mutually presuppose each other.”¹⁰ Rather than describing spiritualism as a response to the rise of new media technologies, therefore, Andriopoulos interprets this religious movement as “a necessary (but not sufficient) condition for the invention” of these technologies.¹¹

The following paper will apply such an approach to the history of spiritualist writing machines by examining how religious concepts both reflected and informed the development of new technologies for encoding, transmitting, and printing written information. While many spiritualist writing machines were based on existing technologies that were repurposed for spirit communication, others prefigured or even inspired more advanced technological innovations. The history of spiritualist writing machines thus not only represents a response to the rise of new media technologies in the nineteenth century, but it also reflects a set of cultural demands that helped to shape the development of new technologies, such as the need to replace handwriting with discrete, uniform lettering, which accelerated the speed of composition; the need to translate written information into codes, which could be transmitted across vast distances; and the need to automate the process of transmitting, translating, and transcribing written information, which seemed to endow the machines themselves with a certain degree of autonomy or even intelligence. While spiritualists and inventors were often (but not always) motivated by different goals, the development of spiritualist writing machines and the development of technological writing machines were nevertheless deeply interrelated and interdependent.

The Spiritual Telegraph

As previously noted, historians often argue that the practice of “rapping” was directly inspired by the invention of electrical telegraphy.¹² There is considerable evidence to substantiate this claim, as the “Hydesville rappings” occurred only four years after the first telegraph link was established between Baltimore and Washington, and by 1848 more than 6000 miles of telegraph cables had already

¹⁰ Stefan Andriopoulos, *Ghostly Apparitions: German Idealism, the Gothic Novel, and Optical Media* (New York: Zone Books, 2013), 13-14.

¹¹ *Ibid.*, 144.

¹² See, for example, John Durham Peters, *Speaking Into the Air: A History of the Idea of Communication* (Chicago: University of Chicago Press, 2000), 94; Wolfgang Hagen, *Radio Schreber: Der ‘moderne Spiritismus’ und die Sprache der Medien* (Weimar: Verlag und Datenbank für Geisteswissenschaft, 2001), 59; Barbara Weisberg, *Talking to the Dead: Kate and Maggie Fox and the Rise of Spiritualism* (New York: Harper Collins, 2004), 102.

been laid. The city of Rochester also played a central role in the development of telegraphy, as Henry O'Reilly, a local newspaper editor, assembled a group of investors who formed the New York and Mississippi Valley Printing Telegraph Company in 1852, which later became Western Union.¹³ As a result, Rochester was widely known as the "telegraph capital" of America.¹⁴ Popular accounts of spiritualist practices also frequently noted the similarities between "rapping" and telegraphy. When the Fox sisters toured England in 1852, for example, one newspaper reported that they were employing a "systematic mode of telegraphy."¹⁵

The main similarity between the spiritualist practice of "rapping" and the development of electrical telegraphy was that they both involved the translation of messages into codes. During the "Hydesville rappings," for example, spirits answered questions using two raps to indicate "yes," as Margaret and Kate's mother explained:

I then asked: "Is this a human being that answers my questions so correctly?" There was no rap. I asked: "Is it a spirit? If it is, make two raps." Two sounds were given as soon as the request was made. I then said: "If it was an injured spirit, make two raps," which were instantly made, causing the house to tremble. I asked: "Were you injured in this house?" The answer was given as before. "Is the person living that injured you?" Answered by raps in the same manner. I ascertained by the same method that it was a man, aged thirty-one years, that he had been murdered in this house, and his remains were buried in the cellar; that his family consisted of a wife and five children, two sons and three daughters, all living at the time of his death, but that his wife had since died.¹⁶

The practice of "rapping" thus involved the use of a binary code that closely resembled the "dots" and "dashes" used in telegraphy. However, this practice actually predated the invention of telegraphy by several decades, as similar phenomena were reported as early as 1762, when a girl named Elizabeth Parsons claimed to have received messages from the spirit of a woman named "Fanny," who had died several years earlier in her home on Cock Lane in London. Parsons

¹³ Blake McKelvey, "A Sesquicentennial Review of Rochester History," *Rochester History* 23.3 (July 1962): 13.

¹⁴ Blake McKelvey, *Rochester the Water-Power City, 1812-1854* (Cambridge: Harvard University Press, 1945), 333.

¹⁵ Qtd. in John Morley, *Death, Heaven, and the Victorians* (Pittsburgh: University of Pittsburgh Press, 1971), 105.

¹⁶ Arthur Conan Doyle, *The History of Spiritualism*, vol. 1 (London: George H. Doran Company, 1926), 62-63.

devised a similar method of communicating with this spirit using one rap for “yes” and two raps for “no,” which allowed her to determine that Fanny had been poisoned by her boyfriend. Numerous stories about the “Cock Lane Ghost” appeared in newspapers at the time, and Parsons even charged an entrance fee to visitors who wished to “talk” with Fanny.¹⁷ As Trevor Hall points out, Parsons’ method of communicating with this spirit “greatly resembled the later spiritualistic séances which were to become widely popular after the affair of the famous Fox sisters.”¹⁸ The practice of “rapping” thus prefigured the invention of electrical telegraphy by imagining the possibility of disembodied communication across vast distances before this secular miracle had been scientifically achieved.

In his 1861 *Book on Mediums*, Allen Kardec referred to this practice as “typtology”—a word coined from the Greek “tupto” or “I strike”—and he described a spirit medium who practiced “typtology” as a “typter”—a word that foreshadowed the term “typist.” Kardec’s book also included the following message from a spirit who compared the role of a “typter” to that of a telegraphic apparatus:

[The medium’s] task is that of an electrical machine, which transmits telegraphic despatches from point of the earth to another far distant. So, when we wish to dictate a communication, we act on the medium as the telegraph operator on his instruments; that is, as the *tac-tac* of the telegraph writes thousands of miles away, on a slip of paper, the reproduced letters of the despatch, so we, from the immeasurable distance that separates the visible from the invisible world, the immaterial from the incarnated world, communicate what we [the spirits] wish to teach you [living people] by means of the medianimic instrument.¹⁹

Typtology and telegraphy were considered similar, in other words, because they were both seen as electrical forms of communication that facilitated communication across vast distances. Kardec also described a variant form of typtology that involved converting the number of raps into letters, which allowed spirits to move beyond simple “yes” or “no” statements: “Following a rule, the table rapped a certain number of times to indicate each letter; that is, one for a, two for b, etc.... Words, phrases, and even whole discourses, could thus be

¹⁷ See Andrew Lang, *Cock Lane and Common-Sense* (London: Longmans, Green, and Company, 1894).

¹⁸ Trevor Hall, *New Light on Old Ghosts* (London: Gerald Duckworth and Company, 1965), 54.

¹⁹ Allen Kardec, *Book on Mediums*, trans. Emma A. Wood (Boston: Colby and Rich, 1891), 292-293.

obtained.”²⁰ Kardec’s number-letter code was remarkably similar to the number-word code employed by Samuel Morse prior to the development of Morse code in 1838. Morse’s original code consisted of numbers of ticks, which were counted and then cross-referenced to a list of words in a codebook, as described in a letter sent to Levi Woodbury, Secretary of the Treasury, in 1837:

The *fullest and most precise information* can be almost instantaneously transmitted between any two or more points, between which a wire conductor is laid: that is to say, no other time is consumed than is necessary to write the intelligence to be conveyed and to convert the words into the telegraphic numbers. The numbers are then transmitted nearly instantaneously...to any distance, where the numbers are immediately recognised and reconverted into the words of the intelligence.²¹

Typtology and telegraphy were also considered similar, in other words, because they both involved the translation of numbers into words or signals into signs.

Due to these similarities between typtological and telegraphic communication, the promoters of spiritualism frequently claimed that spirit mediums had established a “spiritual telegraph” between the terrestrial world and the spirit world. In his 1851 book *The Philosophy of Spiritual Intercourse*, for example, Andrew Jackson Davis described the spirit medium as an electrical “conductor” who enables the transmission of coded electrical signals: “The spirits...are enabled through these mediums, or *conductors*, to...produce *rappings*, like the magnetic telegraph, corresponding to letters of the alphabet.”²² Spiritualists not only used a telegraphic alphabet of raps to communicate with spirits, but they also believed that reliable interactions between terrestrial and spiritual intelligences depended on a properly adjusted séance apparatus, just as telegraphic communication required a properly adjusted instrument:

If your apparatus for telegraphing is imperfect—if there is “contact” or “deflection of needles”, how liable the receiver is to misunderstand the messages, although the sender may transmit it as correctly as he possibly can under the circumstances; but who would condemn the sender of the message because the apparatus was imperfect? And just so I apprehend the messages from the

²⁰ Ibid., 185.

²¹ Qtd. in Alfred Vail, *The American Electro Magnetic Telegraph: With the Reports of Congress and a Description of all Telegraphs known* (Philadelphia: Lea and Blanchard, 1845), 70.

²² Andrew Jackson Davis, *The Philosophy of Spiritual Intercourse; Being an Explanation of Modern Mysteries* (New York: Fowlers and Wells, 1851), 27.

spirit-world are defective, or are often considered false, because the right conditions are not provided.²³

Davis thus concluded that “the conditions and principles upon which spirits answer...are no more complicated or wonderful than the principles upon which the magnetic telegraph is daily operating along our great commercial avenues.”²⁴

Davis provided a more detailed explanation of this process and its potential applications in his 1855 book *The Present Age and Inner Life*, which described an “earthly terminus” and a “spiritual terminus” connected by a “fine thread of magnetism, which, perforating and passing through all intervening substances, accomplishes the wonders herein described.”²⁵ Davis provided the following example:

[S]uppose a mother, residing in New York, prays for news from her son, living in the city of London. He is very sick. She is anxious to learn of his actual situation. It will take ten or twenty days to get a letter. She must know now. But how?... The mother has guardian spirits in the Spirit-Land—so, also, has her son.... Like the earth’s inhabitants, her and his guardians form a circle.... The super-mundane circle [of spirits] establish lines of sympathy between the mother and the son, as indicated by the pyramidal currents connecting the two cities. Thus, the actual condition of the son is...telegraphed.²⁶

By establishing a connection between New York and London, the spiritual telegraph thus prefigured the development of wireless transatlantic telegraphy, which was not actually realized until 1901. While the accompanying illustration does not explicitly depict an ocean separating two continents, the straight line connecting the two distant cities clearly indicates that spiritual telegraphy, like wireless telegraphy, is not bound by the contour lines of geography (see figure 1).

²³ “Magneto-Electricity and the Spirit-Circle,” *Medium and Daybreak* 2 (1872): 303.

²⁴ Davis, *The Philosophy of Spiritual Intercourse*, 26.

²⁵ Andrew Jackson Davis, *The Present Age and Inner Life; A Sequel to Spiritual Intercourse: Modern Mysteries Classified and Explained* (New York: Partridge and Brittan, 1855), 66-67.

²⁶ *Ibid.*, 194.

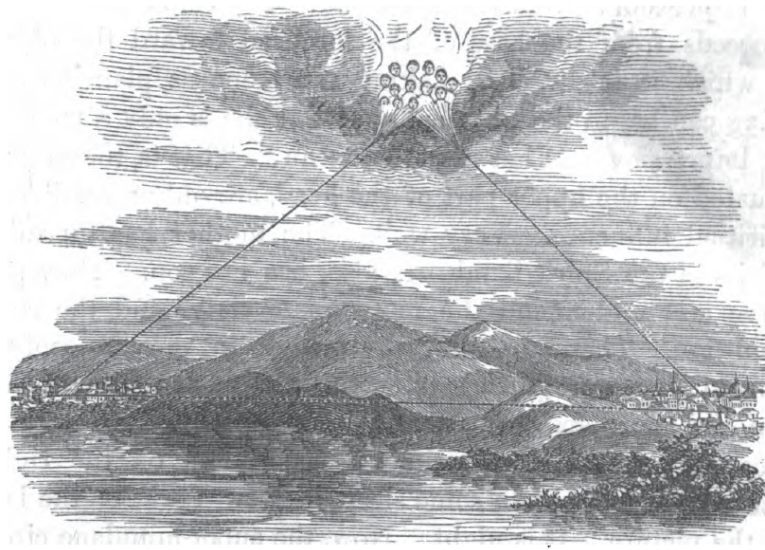


Figure 1—Andrew Jackson Davis' illustration of the "spiritual telegraph"²⁷

Horace Greeley, editor of the *New York Herald*, also offered two thousand dollars a month to any spirit medium in America who could report news from Europe, which effectively introduced the idea of a wireless transatlantic news service.²⁸ Spiritualists thus believed that the practice of spiritual telegraphy far exceeded the range and capabilities of electrical telegraphy, and they imagined the possibility of a wireless transatlantic telegraph system decades before scientists and engineers had even conceived of such a development.

Spiritualists also maintained that spiritual telegraphy was faster than electrical telegraphy. In 1849, for example, Rev. Ashahel H. Jervis claimed that spirits notified him of the death of a friend's son hours before the telegram arrived, and therefore the spiritual telegraph "has outdone Morse's altogether."²⁹ S. B. Brittan's spiritualist newspaper, the aptly named *Spiritual Telegraph*,

²⁷ Ibid., 193.

²⁸ Hiram Mattison, *Spirit-Rapping Unveiled! An Expose of the Origin, History, Theology, and Philosophy of Certain Alleged Communications from the Spirit World by Means of "Spirit Rapping," "Medium-Writing," "Physical Demonstrations," Etc.* (New York: J. C. Derby, 1855), 67.

²⁹ Eliab W. Capron and Henry D. Barron, *Singular Revelations: Explanation and History of the Mysterious Communion with Spirits, Comprehending the Rise and Progress of the Mysterious Noises in Western New-York, Generally Received as Spiritual Communications* (Auburn, NY: Capron and Barron, 1850), 38-39; Hardinge, *Modern American Spiritualism*, 51.

provided numerous examples of such phenomena in the early 1850s, such as an instance when spirits accurately reported the arrival of a steamer before the telegram was received.³⁰ Spiritual telegraphy was also considered more efficient than electrical telegraphy. The *Spiritual Telegraph* similarly reported, for example, that H. F. Gardner had sent a regular telegraphic message to the newspaper, but according to the spirits it had not been received. Gardner then asked the editors to verify the spirits' claims in order to determine "which is the most reliable, the Spirit or the Magnetic Telegraph." The editors reported that the original message had not been received, just as the spirits claimed, and the spiritual telegraph was thus shown to be a more reliable form of communication.³¹

These parallels between spiritual and electrical telegraphy help to explain why the style of spirit messages often resembled that of business communication. In his 1874 book *Startling Facts in Modern Spiritualism*, for example, Napoleon Bonaparte Wolfe described a spirit medium named James V. Mansfield, who was known as the "spirit-postmaster" due to his ability to channel messages from spirits in response to questions placed in sealed envelopes. Wolfe described Mansfield as a "human telegraph," as he displayed "a slight muscular spasm of the arm" caused by "what the spirits term an electro-magnetic circuit, enabling them to approach and influence the nerve-center of his motor system."³² Mansfield would then "tap on the letter" with a finger—a gesture that resembled "the motion of a telegraph key, making like irregular sounds."³³ The writing was then "rapidly executed," as the use of telegraphic codes accelerated the speed of composition.³⁴ Wolfe also described this process as "business-like, orderly, and straight,"³⁵ and he emphasized the extreme efficiency with which the spirits employed the medium: "It looked to me as if the spirits were making the best use of time, with the limited means at their command—really utilizing the mediums, as the telegraph is kept at its fullest working capacity when business is brisk."³⁶

By the end of the nineteenth century, spiritual telegraphy was increasingly seen as a viable alternative to electrical telegraphy. For example, W. W. Aber's *Guide to Mediumship* claimed that spirits were also capable of communicating

³⁰ "In Advance of the Telegraph," *Spiritual Telegraph* 2 (1853): 428.

³¹ "Spiritual Telegraphic Dispatches," *Spiritual Telegraph* 3 (1854): 271.

³² Napoleon Bonaparte Wolfe, *Startling Facts in Modern Spiritualism* (Cincinnati: Wolfe, 1874), 48.

³³ *Ibid.*, 44.

³⁴ *Ibid.*, 45.

³⁵ *Ibid.*

³⁶ *Ibid.*, 49.

through regular telegraph keys.³⁷ Some spirit mediums even opened their own telegraph offices, such as W. S. Rowley's "Occult Telegraph," which was reportedly in daily use in Cleveland, Ohio in the 1880s.³⁸ The spiritual telegraph was thus understood as more than a simple metaphor; rather, it was seen as a potentially more advanced communication device. It also represented a fusion of religious and commercial interests, as it was clearly informed by the spiritualists' belief in the survival of human personality after death, but it also reflected the technical demands of modern capitalism, which required the rapid transmission, translation, and transcription of written information across vast distances.

Alphabetic Typtology

In order to maximize the speed of composition, spiritualists constantly sought to develop faster and more efficient writing machines. While the practice of typtology was often slow, as each letter required the counting of numerous ticks, the Fox sisters' older brother David introduced the idea of reciting the alphabet and having the spirits rap when the appropriate letter was reached.³⁹ Kardec referred to this practice as "alphabetic typtology," which he described as follows: "[W]hile the medium is at the table, another person goes successively through the alphabet.... [When] the necessary letter [is] reached, the table raps of itself, and the person writes the letter; then begins again, for the second, the third, and so on.... With practice it is quite rapid."⁴⁰ By allowing each rap to signify a different letter, this practice accelerated the speed of spirit communication to such a degree that it became possible for spirits to transmit longer messages or even entire books. Kardec described a wide assortment of devices that were used to further increase the rate of transmission. In another form of alphabetic typtology, for example, letters were inscribed on the surface of a table and the medium's hand would pass over them until a rap was heard. This technique paralleled the innovations introduced by William Fothergill Cooke and Charles Wheatstone's telegraph, which employed a series of electrical wires connected to needles that pointed to letters arranged on a diamond-shaped grid. Messages were encoded in the form of electrical impulses that were translated directly into written information, which eliminated the need for a number-word code. Like alphabetic

³⁷ W. W. Aber, *A Guide to Mediumship Given by a Delegation from the Star Circle of the Spirit World* (Kansas City: Aber, 1906), 23.

³⁸ "Occult Telegraphy," *Light* 7 Apr. 1888: 162.

³⁹ Ruth Brandon, *The Spiritualists: The Passion for the Occult in the Nineteenth and Twentieth Centuries* (London: Weidenfeld and Nicolson, 1983), 4.

⁴⁰ Kardec, *Book on Mediums*, 185-186.

typology, therefore, Cooke and Wheatstone's telegraph allowed telegraphic signals to be received and decoded by the medium itself, and they can thus be understood as similar attempts to increase the speed and efficiency of written communication through automation.

Another innovation that eliminated the need for telegraphic codes was the printing telegraph, which was first patented by Royal Earl House in 1846. House's device consisted of two 28-key piano-style keyboards, each key of which represented a different letter. A typewheel at the transmitting end was synchronized to a similar wheel at the receiving end, so when a key corresponding to a particular letter was pressed on one keyboard the same letter moved into the printing position on the other keyboard. In 1855, David Edward Hughes developed an improved version of the printing telegraph, which included an electromagnet that activated a hammer and printed the letter on a paper ribbon. Like Cooke and Wheatstone's telegraph, therefore, the printing telegraph represented a synchronous data transmission system that did not require a number-word code, and it further increased the rate of transmission by translating electrical signals directly into written transcriptions, which eliminated the need for a human operator at the receiving end.

Spiritualists constructed similar typewheels in the form of dials with letters inscribed along the circumference and a moveable needle that pointed to letters in rapid succession when set in motion by the medium's influence. Isaac T. Pease developed the first "spiritual telegraph dial" in the early 1850s (see figure 2), and he claimed that "with a good tipping medium to facilitate the movements of the pointer by agitating the table, letters will be indicated to the dial as fast as an amanuensis can write it down."⁴¹ In her 1860 book *My Experience*, Francis Smith corroborated Pease's claim that the "spiritual telegraph dial" dramatically increased the speed of composition:

Imagine the face of a clock...but, instead of the figures, you have the letters of the alphabet. Around its axis is wound a cord, one end of which is attached to a spring within its frame; the other is made fast to a chair, or other object in the room. The tipping of the table draws the cord, and causes the hand to revolve, pointing to the letters, forming words and sentences.... At first, the hand moves slowly from letter to letter, spelling out the whole word—but as your medium power becomes more developed...the communication flows as fast as the swiftest pen can record.⁴²

⁴¹ "A Spiritual Machine," *The Mechanics' Magazine* 60.1593 (18 Feb. 1854): 157.

⁴² Francis H. Smith, *My Experience, or Foot-Prints of a Presbyterian to Spiritualism* (Baltimore: Smith, 1860), 49-50.

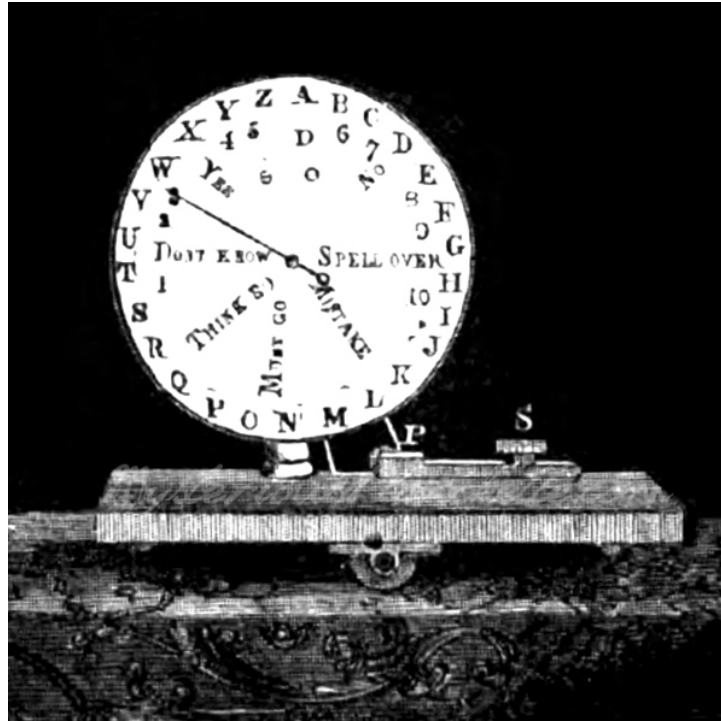


Figure 2—Isaac T. Pease's "spiritual telegraph dial"⁴³

Many similar devices were marketed in the late nineteenth century, including Daniel Hornung's "emanulector" and Hudson Tuttle's "psychograph," which also employed dials and moveable needles to facilitate spirit communication. Like Pease's "spiritual telegraph dial," these devices were directly inspired by Wheatstone's "alphabetical" or "ABC" telegraph, which was patented in 1840. The "ABC" telegraph similarly consisted of two dials inscribed with letters along their circumference. The upper dial indicated incoming messages, while the lower dial was used to compose outgoing messages. Sending a message involved pressing a button next to the desired letter and turning a handle until the pointer moved to that letter. Electrical impulses then caused the pointer on the upper dial at the receiving end to indicate the same letter. Like Pease's "spiritual telegraph dial," therefore, Wheatstone's "ABC" telegraph was also designed to facilitate the transmission and reception of written information

⁴³ Robert Hare, *Experimental Investigations of the Spirit Manifestations: Demonstrating the Existence of Spirits and their Communion with Mortals; Doctrine of the Spirit World Respecting Heaven, Hell, Morality, and God; Also, the Influence of Scripture on the Morals of Christians* (New York: Partridge and Brittan, 1855), n.p.

without the need for a specially trained operator to translate the electrical signals into legible signs.

Pease's "spiritual telegraph dial" also inspired Robert Hare, a chemistry professor at the University of Pennsylvania, to conduct his own spiritualist writing experiments. In his 1855 book *Experimental Investigation of the Spirit Manifestations*, for example, Hare described an experiment in which the alphabet was inscribed on the surface of a table and the medium's hand passed over the letters until a rap was heard. Hare noticed that spirit messages continued to be received after the medium directed her eyes away. He then devised his own apparatus, which he called a "spiritoscope," by adding various pulleys and weights to Pease's "spiritual telegraph dial" and reversing the plate such that it faced away from the medium (see figure 3).

PLATE II.

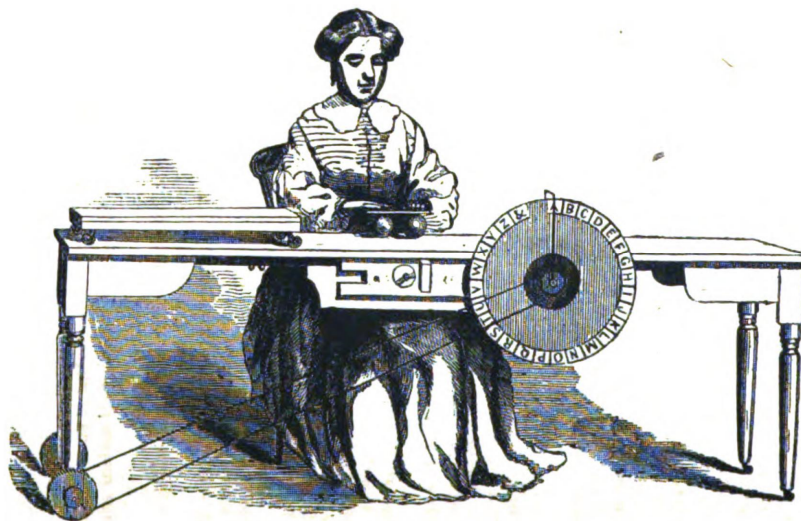


Figure 3—Robert Hare's "spiritoscope"⁴⁴

Hare concluded that the medium "cannot see the index or the letters, and consequently cannot control the spelling of spirits, so as to give results from her own mind instead of theirs."⁴⁵ Hare's technical innovations were not only motivated by a desire to eliminate fraud, but they were also informed by a desire to increase the speed and accuracy of spirit communication, as his apparatus eliminated the need for a number-word code as well as the possibility of human error. The "spiritoscope" thus represented a more advanced writing machine, as

⁴⁴ Ibid.

⁴⁵ Ibid.

the process of receiving and decoding written information was more fully automated and the function of the medium was almost completely subsumed by the apparatus itself. The medium only remained necessary as a power source or human battery, whose influence served to activate the device and keep it moving.

In the late nineteenth century the practice of alphabetic typology eventually led to the production of “talking boards,” which were often used as toys or games. The most successful talking board was the “Ouija” board, which was patented by Elijah Bond and Charles Kennard in 1891. When sitters placed their hands on the pointer, it slid across a wooden board with letters and numbers inscribed on it, spelling out words or even complete sentences. Talking boards thus integrated spiritualist writing practices like “alphabetic typology” and spiritualist writing machines like the “spiritual telegraph dial” by replacing telegraphic codes with indicators that served to accelerate the speed of composition and automate the process of decoding signals into signs. These innovations also paralleled the development of printing and dial telegraphs, as they were similarly designed to maximize the rate of transmission and eliminate the need for specially trained operators.

Spirit Typewriting

Despite these technological advances, spiritualist writing machines remained deficient in the area of automatic transcription, as they still relied on the presence of human observers to take dictation during séances. The typewriter promised to correct this deficiency by allowing spirits to produce written texts without the need for a stenographer. Aber’s *Guide to Mediumship* provided the following instructions for “spirit typewriting”: “Place the typewriter on the table, and form a battery in front [by holding hands].... Be sure to place plenty of paper in the cabinet, ready for the spirit operator.” Aber also noted that his own guidebook had been written using this very same method: “The typewriting on this book was executed by a materialized spirit in materializing séances, held for this special purpose.”⁴⁶ At the same time that the typewriter was becoming essential to business communication, therefore, spiritualists also conceived of this writing machine as essential to spirit communication, as it promised to enable the integration and automation of transmission, translation, and transcription.

The inventor of the first commercial typewriter, Christopher Latham Sholes, was also an avid spiritualist who was deeply “interested in communicating

⁴⁶ Aber, *Guide to Mediumship*, 22.

with the other world.”⁴⁷ He even founded his own spiritualist community, the Excelsior Church, which invited “[m]en and women of all shades of belief and disbelief...to participate in its free discussions of life here and hereafter.”⁴⁸ Although this church only lasted for two years, Sholes maintained his belief in spiritualism throughout his life. In 1888, two years before his death, he wrote in a letter to a colleague: “The great use of [spirit] manifestations...is to teach a doubting world that life *does* continue.”⁴⁹ While historians often minimize the significance of Sholes’ interest in spiritualism,⁵⁰ he was clearly familiar with spiritualist writing practices and his invention reflects many of the engineering principles employed in spiritualist writing machines.

Sholes’ first prototype, which was built in July 1867, was essentially a telegraph key fixed such that the typebar would strike up against a glass plate. Sholes then constructed a typewheel by placing a similar key for each letter of the alphabet on the rim of a circle so that each one was capable of striking the center. By September 1867 Sholes had developed a larger model capable of printing the entire alphabet (see figure 4).

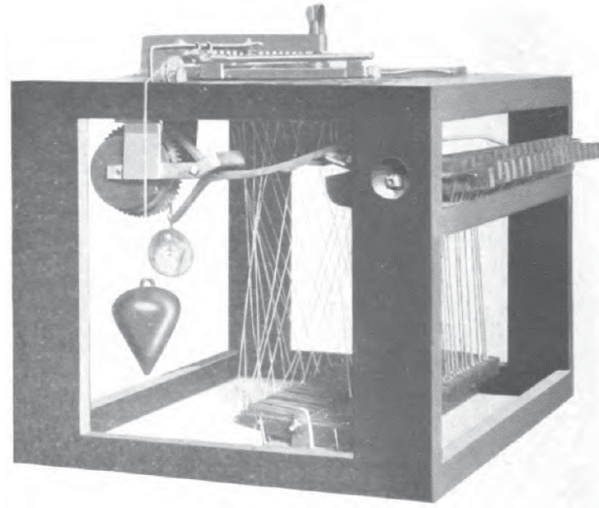


Figure 4—Christopher Latham Sholes’ “kitchen table model”⁵¹

⁴⁷ Qtd. in Richard Nelson Current, *The Typewriter and The Men Who Made It* (Urbana: University of Illinois Press, 1954), 4.

⁴⁸ Arthur Toye Foulke, *Mr. Typewriter: A Biography of Christopher Latham Sholes* (Boston: Christopher Publishing House, 1961), 40.

⁴⁹ Current, *The Typewriter and The Men Who Made It*, 124.

⁵⁰ See, for example, Scott Bukatman, “Gibson’s Typewriter,” *South Atlantic Quarterly* 92.4 (1993): 631.

⁵¹ Charles E. Weller, *The Early History of the Typewriter* (La Porte, IN: Chase and Shepherd, 1918), 80.

Sholes referred to this apparatus as his “kitchen table model,” as it was essentially a table with a hole in the center and a circle of letters printed on one side of the flat surface. It also represented the origin of “understrike” technology, as a sheet of paper was placed over the hole and the typebars would strike the paper from underneath when the appropriate letters were pressed. This model thus illustrates how the typewriter incorporated various spiritualist engineering principles. Just as letters were inscribed on the surfaces of tables to facilitate alphabetic typology, so too were letters printed on the surface of Sholes’ apparatus to facilitate typewriting. And just as spirits would rap against the underside of a table when a medium’s hand passed over a particular letter, so too would the typebars of this apparatus strike the underside of the paper when a particular letter was selected. The typewriter was thus directly inspired by spiritualist writing practices like alphabetic typology, which were similarly driven by a desire to increase the speed of composition.

The similarities between typology and typewriting help to explain why this writing machine was so easily incorporated into spiritualist séances in the 1890s. In 1893, for example, a spiritualist newspaper reported that a Smith Premier typewriter began to write by itself during a séance with a medium named Lizzie Bangs: “The medium does not touch the typewriter at all; it is used independent of or without contact from the medium’s hands or fingers.”⁵² The reporter also noted that the automation of the typewriter enabled the rapid composition of written information: “There is no holding or hesitating in the action of the machine; on the contrary, you hear that it is operated with an astonishing degree of swiftness and dexterity.”⁵³ As with alphabetic typology, spirit typewriting was also employed to relay messages from lost loved ones—in this case, the sitter’s dead son. However, the messages resembled the style of business communication, as the reporter emphasized the professional appearance of the typewritten text: “In mechanical execution this independent typewriting...is done in a neat, clean, business-like manner.... [T]he performance is as good as the letters one receives from first-class business houses.”⁵⁴ In other words, the typewriter was operated not by the spirit of the sitter’s son, but rather by another spirit inhabiting the machine itself, which appeared to possess the skills of a professionally trained typist.

During another séance with Bangs in 1896 the witnesses testified that “it would have been a physical impossibility for her to have, in any way, touched the

⁵² George Lieberknecht, “Typewriting Extraordinary,” *Borderland* 1.1 (July 1893): 61.

⁵³ *Ibid.*

⁵⁴ *Ibid.*

key-board,” as the séance took place in total darkness.⁵⁵ The absence of illumination thus seemed to prove that the process of composition was fully automated. As with Bangs’ earlier séance, the message received also resembled a form of business communication:

Although we are not able at this hour to bring you in direct communion with your individual friends from the higher side of life, I trust that the manifestation of this writing will serve as evidence to you that under proper conditions nothing is impossible with the spirit.... I shall be pleased to again meet you in this way, and doubt not that I shall be able to bring you in communion with those near you on the other side of life.⁵⁶

Although the reporter claimed that this message provided the “most wonderful evidence of the persistence of individual self-consciousness after death,”⁵⁷ its professional, impersonal, and generic form more closely resembles an automated response from a transmitting station experiencing technical difficulties. Like the earlier message, it also illustrates the conflation of typist and typewriter, as the spirit inhabiting the machine appears to have once again assumed the role of disembodied secretary. The practice of “spirit typewriting” thus illustrates the close connections between spirit communication and business communication, as they both attempted to maximize speed and efficiency through the mechanization and automation of textual production.

Ronald Pearsall notes that such phenomena were often produced “by attaching invisible threads to the typewriter keys,”⁵⁸ but investigators at the time suspected that the fraud was actually committed using electricity. During the previous séance, for example, the reporter suspected that Bangs had attached electromagnets to the keys of the typewriter and connected them to the keys of another machine, which would allow the typewriter to function as a synchronous data transmission and transcription system (i.e. a printing telegraph). Although he discovered that “not a single electro-magnet was attached the machine, not any wire or strand,” the reporter went on to explain that the manifestations were indeed caused by an electrical “circuit” created by the sitters themselves through their “circle of hands.”⁵⁹ He therefore concluded that there was essentially no difference between a typewriter and a printing telegraph, as any typewriter was capable of functioning as a synchronous data transmission and transcription

⁵⁵ Quaestor Vitae, “Type-Writing Without Human Contact,” *Light* 25 Jan. 1896: 44.

⁵⁶ *Ibid.*, 45.

⁵⁷ *Ibid.*, 44.

⁵⁸ Ronald Pearsall, *The Table-Rappers* (London: Michael Joseph, 1972), 109.

⁵⁹ Quaestor Vitae, “Type-Writing Without Human Contact,” 43.

system when activated by the electrical charge generated during a spiritualist séance. In other words, the practice of spirit typewriting effectively replaced the spirit medium with a fully automated machine capable of transmitting, translating, and transcribing written information in the absence of a human operator.

One of the most prominent attendees at Bangs' 1893 séance was George Washington Newton Yost. Like Sholes, Yost was a typewriter inventor and entrepreneur as well as an avid spiritualist,⁶⁰ and in 1895 he financed a similar event at Carnegie Hall with a Chicago spiritualist named Henry D. Rogers. Rogers designed a cabinet with two compartments separated by metal bars. While he sat in one of these compartments, a Yost typewriter was placed in the other compartment at a distance of three or four feet. During the performance the audience could hear the sounds of the typewriter, and a witness peered behind the curtain to confirm that the typewriter was indeed typing on its own. A reporter also confirmed that it was impossible for Rogers to reach the typewriter through the metal bars, and even if he had it would have been impossible for him to type in total darkness:

When the séance was over, and Mr. Rogers had left the cabinet, I entered it myself, and found that while I could put my fingers through the wire-netting dividing partition, yet my fingers could not reach the nearest part of the machine by a distance of three or four inches; the keys being still further away. Also let it be remembered that the messages were printed in darkness, except during the time when the curtain was held up to show that the machine was working untouched by human hands.⁶¹

Rogers' performance thus represented a spiritualist séance, a magic show, and a commercial advertisement, as the miracle of automation was intended to promote spiritualist beliefs, sell tickets, and increase typewriter sales. It is also significant that the Yost typewriter, like the Smith Premier, was a "blind" or "understroke" machine, whose typebars were housed inside an enclosed black cylinder. When the keys were pressed, the typebars would strike the bottom of the platen, which remained outside the typist's field of vision, so the printed letters could only be seen when the paper was removed from the machine. Like Rogers' cabinet, therefore, the Yost typewriter also represented a miniature darkened room, which appeared to facilitate the same kinds of manifestations that occurred in the darkened rooms of spiritualist séances.

⁶⁰ David Witter, *Chicago Magic: A History of Stagecraft and Spectacle* (Charleston: History Press, 2013), 29.

⁶¹ Quaestor Vitae, "Messages Through a Typewriting Machine Without Human Contact," *Light* 2 Nov. 1895: 533.

Although the term “automatic” seemed to imply total automation, it was more often used in the late nineteenth century to refer to typewriters with automatic carriage return. The same term was also used in the early twentieth century to refer to typewriters capable of recording and reproducing written information. For example, the Hooven Automatic Typewriter, which was introduced in 1911, preserved a record of a typist’s keystrokes on a perforated strip of paper, which could then be fed back into the typewriter to reproduce the same keystrokes in the absence of a human operator.⁶² However, the practice of “spirit typewriting” more closely prefigured the rise of the “teleprinter,” which combined the functions of the printing telegraph and the automatic typewriter. The first “teleprinter,” which was patented by Donald Murray in 1901, was essentially a printing telegraph connected to a typewriter keyboard. As there was no longer any correlation between the movement of the operator’s hands and the codes transmitted by the device, there was no concern about arranging the code to minimize operator fatigue, so Murray created a new code designed to minimize wear on the machinery instead. The development of the first machine-readable codes was thus made possible by the integration of telegraphy and typewriting, which spiritualists had already envisioned in the 1890s.

Like the “Ouija” board, there were also several attempts to commodify the practice of spirit typewriting. In the early twentieth century, for example, W. T. Braham invented a “wonderful spirit communicator” modeled on early index typewriters. Sunker Abaji Bisey also patented a “spiritualistic communication apparatus” that consisted of a ring of typewriter keys on a large typewheel. Like other “understroke” typewriters, which prevented the typist from seeing where the typebar struck the platen, Bisey’s device also prevented the operator from seeing which key would imprint which letter on the paper ribbon, which seemed to remove any possibility of human interference. These devices thus reinforced the idea of the typewriter as an automatic machine—an idea that prefigured the development of the teleprinter by nearly a decade.

The Turing Test

Historians often describe the telegraph system as a predecessor to modern computer networks. Jeremy Stolow argues, for example, that the telegraph

⁶² James H. McCarthy, *The American Digest of Business Machines: A Compendium of Makes and Models with Specifications and Principles of Operation Described, and Including Used Machine Valuations* (Chicago: American Exchange Service, 1924), 246-247.

“represented a significant harbinger of the contemporary global communications environment, with its proliferating networks of computers and satellites, and the institutional architecture governing transnational flows of digital information.”⁶³ Paul DeMarinis also points out that the printing telegraph prefigured the rise of modern computers through the electrical transmission of written information and the development of machine-readable codes, which automated the process of transmission, translation, and transcription: “Among the most obvious similarities are use of electricity to transmit messages, a network infrastructure, a set of codes to translate human language into on-off pulses, and the use of devices to assist in the retranslation and printing of the messages for human readability.”⁶⁴ These arguments are certainly compelling, yet the history of spiritualist writing machines also prefigured other possibilities opened up by digital computers, such as the potential for artificial intelligence.

The connections between spiritualist writing practices and artificial intelligence are most clearly illustrated by considering the parallels between spiritualist séances and the famous “Turing test.” Alan Turing first described this test in his 1950 essay “Computing Machinery and Intelligence,” in which he proposed to replace the problem of whether or not machines are capable of conscious thought with the problem of whether or not machines are capable of imitating conscious thought in a convincing way. This hypothetical “imitation game” involved a human subject who was confined in a room with a teleprinter that allowed him to communicate with an unseen entity. The subject was then asked to determine whether this unseen entity was human or machine based solely on written information communicated through the device.⁶⁵ The “Turing test” thus resembled the practice of electrical telegraphy, in which operators attempted to distinguish between intelligent signals and noise generated by the apparatus, as well as the practice of spiritual telegraphy, in which sitters attempted to verify the identities of disembodied spirits based on messages received through a spirit medium. Machines were potentially indistinguishable from humans, in other words, because there was no qualitative difference between real intelligence and the simulation of intelligence, and this was precisely the same logic that informed both technological and spiritualist writing machines.

⁶³ Jeremy Stolow, “Techno-Religious Imaginaries: On the Spiritual Telegraph and the Circum-Atlantic World of the 19th Century,” *Globalization Working Papers* (March 2006), 9.

⁶⁴ Paul DeMarinis, “Erased Dots and Rotten Dashes, or How to Wire Your Head for a Preservation,” *Media Archaeology: Approaches, Applications, and Implications*, ed. Erkki Huhtamo and Jussi Parikka (Berkeley: University of California Press, 2011), 217.

⁶⁵ Alan M. Turing, “Computing Machinery and Intelligence,” *Mind* 59 (October 1950): 434.

The connections between telegraphy, spiritualism, and the “Turing test” are particularly evident when compared to William Crookes’ description of the similarities between telegraph operators and spirit mediums. After the second transatlantic telegraph cable was established between Ireland and Newfoundland in 1866, Crookes claimed that the experience of attending a spiritualist séance closely resembled the experience of deciphering telegraphic signals from Canada:

I wish...to be considered in the position of an electrician at Valentia, examining by means of appropriate testing instruments, certain electrical currents and pulsations passing through the Atlantic cable; independently of their causation, and ignoring whether these phenomena are produced by imperfections in the testing instruments themselves—whether by earth currents or by faults in the insulation—or whether they are produced by an intelligent operator at the other end of the line.⁶⁶

According to Crookes, therefore, telegraphy and spiritualism are similar not only because they both represent methods of electrical communication capable of transmitting written information across vast distances, but also because they both involve deciphering signals from noise, as it is often unclear whether the messages received are produced by “an intelligent operator at the other end of the line” or simply by “the testing instruments themselves.” The subject in the “Turing test” is also placed in a similar position, as he must determine whether the messages received through the teleprinter are generated by a human being or by the instrument itself. In other words, the teleprinter serves the same function as the spirit medium, and it can thus be understood as an updated version of the “spiritual telegraph dial” or the “spirit typewriter,” which similarly assumed the role of the medium during spiritualist séances.

In considering various objections to his proposal, Turing suggested that machines could even be seen as possessing a soul. He added that this would “not be irreverently usurping [God’s] power of creating souls, any more than we are in the procreation of children: rather we are, in either case, instruments of His will providing mansions for the souls He creates.”⁶⁷ In other words, Turing described the “soul” as an emergent property of machine-mediated communication systems, as the automation of written communication seemed to blur the distinctions between the animate and the inanimate or humans and machines. The “Turing test” thus represents perhaps the ultimate merging of spiritualist writing practices

⁶⁶ William Crookes, *Researches in the Phenomena of Spiritualism* (London: J. Burns, 1874), 45.

⁶⁷ Turing, “Computing Machinery and Intelligence,” 443.

and the development of writing machines, which were both driven by a common desire to replace human operators with technological simulations.

Conclusion

This paper has attempted to show that spiritualist writing practices were not simply inspired by the development of new writing machines; rather, spiritualist and technological writing machines were both driven by a common set of cultural demands that served the interests of spiritual as well as business communication:

- *The mechanization of writing:* In order to maximize the speed, efficiency, and accuracy of textual production, spiritualist and technological writing machines replaced the unique, personalized aspects of handwriting with the discrete, uniform quality of mechanical writing.
- *The coding of written information:* In order to facilitate the transmission of written information, spiritualist and technological writing machines converted these standardized signs into electrical signals, which introduced a distinction between human languages and machine-readable codes.
- *The compression of time and space:* By extending the range of these transmissions, spiritualist and technological writing machines seemed to enable virtually instantaneous communication across virtually unlimited distances.
- *The automation of written communication:* By automating the process of transmitting, translating, and transcribing written information, spiritualist and technological writing machines seemed to eliminate the need for specially trained operators, which effectively conflated the functions of the writer and the apparatus.
- *The technological simulation of intelligence:* By automating the process of written communication, spiritualist and technological writing machines effectively blurred the distinctions between real intelligence and the simulation of intelligence, as it became increasingly unclear whether communication was being facilitated between humans or machines.

In each of these areas, the development of spiritualist writing machines and the development of technological writing machines can be seen as deeply interrelated and interdependent. In some cases, spiritualists appear to have been directly inspired by the invention of new writing machines, and their practices can thus be understood as an attempt to “sacralize” these technologies, as Sollors argues. This can be seen, for example, in the case of the “spiritual telegraph dial” and the “spiritoscope,” which seemed to endow dial telegraphs with a “transcendent meaning.” In other cases, however, spiritualist writing practices appear to represent a necessary (but not sufficient) condition for the development of new writing machines. This can be seen, for example, in the case of “rapping,” which predated the development of telegraphic codes by more than seventy years, the practice of “spiritual telegraphy,” which envisioned the implementation of wireless transatlantic telegraphy more than forty years before the first wireless transatlantic message, the practice of “alphabetic typtology,” which inspired the development of “understrike” technology, and the practice of “spirit typewriting,” which prefigured the integration of telegraphy and typewriting by nearly a decade. Instead of simply dismissing spiritualism as a primitive or naïve response to the development of new media technologies, it is thus useful to consider the ways in which this religious movement may also represent a visionary attempt to understand the origins and implications of machine-mediated communication systems, which continue to shape our contemporary media ecology.

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