Global Communication Electric: Business, News and Politics in the World of Telegraphy

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On April 16, 1879 Emma Pender, wife of cable magnate and head of the Eastern and Associated Companies, John Pender, was having tea with her lady friends at her London house, when she received a package from her daughter in Fiji by the Melbourne steamer. Her daughter’s letter accompanying the package was dated January 15, a good three months before the package interrupted Emma Pender’s tea engagement. Her daughter asked Pender to send her a telegram to indicate how long the package had taken to arrive. While Emma Pender swiftly set her servant to this task, the package stirred a tea time discussion among the ladies present who all declared “the size of [their] world cruel.” Pender later recalled in a letter to her daughter that it fell to the hostess to remind her excited guests of “older days” without the telegraph and “no regular mail at all.”¹ For Victorian upper class women, telegraphy and the global communications system swiftly became integral parts of their everyday lives. Indeed, Pender’s interaction with her daughter was embedded in a world-wide system of regular mail and parcel service, railway and steamship transportation and messenger boys as well as telegraphy. The size of the world might have seemed cruel to ladies enjoying high tea in Victorian London, but the global communications system had enabled them to idealize an electric world in union in the first place.

Telegraphs are an emblem of modernity as well as catalysts of our present global condition. The establishment of an extensive and world-spanning network of landline and submarine cable connections in the mid-nineteenth century fostered the emergence of structures and patterns of interaction on a global scale. World politics, a global economy and a global media system only became possible with the creation of *global communication electric.* Moreover, the telegraphs caused the most dramatic globalization effects among all new technologies of the nineteenth century, as telegraph lines were easier to lay

¹ Emma Pender, “Letter to her daughter Marion,” March 30, 1879, Emma Pender Papers, Cable and Wireless Archive.
than railway tracks and transmitted news with a higher speed and greater capacity than steamships.\textsuperscript{2} Significant changes in long-distance communication occurred particularly after the successful completion of the transatlantic telegraph cable in 1866 and the subsequent expansion of land and submarine lines to cross the Euro-American continents and establish connections from Europe and North America to India, Australia, Japan and Brazil in the 1870s. Message and messenger became more independent of each other as the former could now travel faster than the latter. Communication over large distances became telecommunication – the focus of modern media culture changed from a movement of goods to a transmission of information.\textsuperscript{3} This had enormous effects: news not only travelled ever faster, it also became ever more current – albeit not necessarily more newsworthy. Despite exorbitant transmission rates, increasing numbers of people used the telegraphs for political, economic and, to a lesser extent, private communication.\textsuperscript{4} Starting out with a few hundred telegrams per year passing through this global network, numbers rose to six million telegrams a year by the turn of the twentieth century.\textsuperscript{5} By 1900, much of the world had ‘logged on’ to global communication electric.

“The universe is a procession, with measured and beautiful motion,” wrote Walt Whitman in “I Sing the Body Electric,” an 1855 poem that explored how the human body mediates between the spiritual and the material world. Whitman’s body electric combines poetic discoveries and aesthetic manifestos with the physical body, portraying the soul as inseparable from its corporeal manifestation.\textsuperscript{6} So too contemporaries saw the world as a body with nerves of submarine and telegraph cables that spanned its circumference. Like Whitman’s body electric, telegraph cables seemed to offer a new means to understand the soul of the world and to offer a connection that promised universal peace and harmony akin to a body in perfect working

\begin{footnotes}
\footnotetext[2]{Osterhammel and Petersson, \textit{Geschichte der Globalisierung}, p. 54.}
\footnotetext[4]{On the use of Welkommunication see Müller-Pohl, ‘By Atlantic Telegraph’: A Study on Welkommunication in the 19th Century.}
\footnotetext[5]{Bright, \textit{Submarine Telegraphs}, p. 167.}
\footnotetext[6]{Whitman and Cowley, \textit{Walt Whitman’s Leaves of Grass}; Blum, \textit{How to write about Walt Whitman}, p. 103.}
\end{footnotes}
order. Contemporaries heralded telegraphy as a tool of *Weltcommunication*, to use a term coined by the German philosopher of technology Ernst Kapp, which practically “annihilate[d] any terrestrial dimension,” meaning distance and time.7 Nowadays, scholars often interpret telegraphy as the chief globalizer of communication technologies in the mid-nineteenth century.8 As such it represented the necessary precondition for modern interaction across space and time and ultimately processes of globalization. Some studies, such as Tom Standage’s 1998 monograph, *The Victorian Internet*, even argue for the commensurability of the nineteenth-century global telegraph network and today’s use of the internet.9 A large majority of the existing literature on global communication and telegraphy further accentuates the telegraphs’ importance for imperial control and Euro-American nationalist power politics. Scholars portray telegraphs as “tools of empire” that aided the formation and consolidation of nation states and empires or helped to generate narratives of national technological progress and development.10

This book critically reconsiders these grand narratives of the annihilation of time and space, the Victorian internet, imperial control and nationalist power politics. The contributions emphasize the importance of other aspects of telegraphy, such as transboundary processes of scientific and business exchanges, intergovernmental modes of governance and alternative notions of identity formation beyond and outside of the (primarily Euro-American) nation state. Neither news nor communication stopped at national boarders and in particular the ocean cable companies laid cables within the openness of maritime regions rather than within the restrictive boundaries of imperial territories. The book hence aims at exploring how global business, news and politics worked not only by means of, but also in the world of telegraphy.

The methodology of global history provides a new avenue to explore telegraphy as a historical force of globalization. Informed by postcolonial theory and subaltern studies, global history expands beyond histories of globalization. Global history challenges Eurocentric narratives of modern-

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7 Kapp, *Grundlinien einer Philosophie der Technik*.
8 Squier, *The Influence of Submarine Cables upon Military and Naval Supremacy*, p. 600.
9 Standage, *The Victorian Internet*.
ization or Westernization alongside the methodological nationalism that thus far allowed scholars to assign cable connections a distinct nationality or imperial agenda. Global historians of telecommunication, meanwhile, use concepts of agency as well as reconceptualizations of space to approach telegraphy from a perspective that is not bound to the nation state. For example, cable companies, contractors and agents often propagated a cable cosmopolitanism that challenged and expanded state boundaries and narratives of national modernization. These actors’ spaces of action aligned with the maritime space of their submarine cables, their frame of identity with their profession and its international scientific networks and their working schemes with the logic of emerging global capitalism far more than nationalist interpretations of their history have shown. The global history approach also reminds us to analyze networks of connections against the backdrop of their disconnections; to see users in relation to non-users. Finally, the global communication network also supported processes of othering by reconfiguring mental maps of the globe. As Eric Hobsbawm points out, while global news makers at the time depended upon a ‘shrinkage of the globe’ through the instantaneity of news coverage, their reports, such as the ‘discovery’ of David Livingstone, created the notion of the ‘dark continent’ or ‘far-away’ places that lay outside of the Euro-American system.

Global communication electric looks at the emergence of a global media system between 1860 and 1930 from the global history perspective in order to broaden and challenge popular conceptions of telegraphy as Tools of Empire, the Victorian Internet or as a means to ‘annihilate space and time.’ The book contains four sections, InterNationalisms, AgentsActors, UseNews and SpaceTime, each of which highlights one particular aspect of global com-

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11 On the approach of global history see: Geyer and Bright, World History in a Global Age; Osterhammel and Petersson, Globalization: A Short History; Sachsenhaier, Global Perspectives on Global History; Conrad, ed., Globalgeschichte, for a practical example Bayly, The Birth of the Modern World; Osterhammel, Die Verwandlung der Welt; On methodological nationalism Wimmer and Glick-Schiller, Methodological Nationalism and Beyond.

12 See for example Jorma Ahvenainen’s focus on regions: Ahvenainen, The Far Eastern Telegraphs, Ahvenainen, The European Cable Companies in South America: Before the First World War.

13 On cable cosmopolitanism see Müller-Pohl, Working the Nation State.

14 In this context see Latour’s distinction between the ‘literatue’ and the ‘illiterate.’ Latour, Die Logistik der Immobile Mobiles.

15 See the concept of mental maps in Christoph Conrad, Vorbemerkung.

16 Hobsbawm, The Age of Capital, p. 60.
The authors highlight collaborative modes of operating the system as well as cosmopolitan, internationalist and even socialist ideas of telegraphic cooperation. The volume’s contributors widen the scope of people involved with the telegraph from the conventional groups of national and international administrations, telegraph companies and telegraph users to integrate the telegraphers, journalists or visitors to world fairs. The chapters redefine telegraphic space and concomitant notions of connectivity and entanglement by delineating different and sometimes competing telegraphic geographies and questioning established notions of instantaneity. In its thirteen chapters, *global communication electric* explores the varied uses of telegraphy, real or imagined, and so narrates the history of global communication from multiple perspectives.18 Returning to the notion of the telegraph as globalizer, our analyses expand this picture to construct the image of a medium of connection as well as friction, of political, social and economic entanglement as well as disentanglement and of crossing as well as creating distance in space and time.

**Inter|Nationalisms**

Telegraphy emerged shortly before the zenith of European nationalism and undoubtedly played an important role in the creation and administration of national territority. At the same time, however, like the wireless, the telephone, or the internet later, telegraphy held the promise of overcoming national borders and boundaries and contributing to a more peaceful world order. From the 1850s to the 1870s, after almost every new cable landing, contemporaries expressed their wishes that the connection would bring ‘peace and goodwill’ to the ‘civilized’ nations.19 The almost contradictory desires to create exclusive national territories but also world peace provoke questions about the role of the national in the global media system, the emergence of international cooperation and standardization and the relationship between regional and global media markets and audiences. This volume shows that

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17 Hills, *The Struggle for Control of Global Communication*.
18 Edgerton, *From Innovation to Use*.
the national and the global were not mutually exclusive categories, but part and parcel of a complex story of simultaneous and interlinked processes of globalization and nationalization.

A multitude of studies deals with the interrelation of telecommunication systems and globalization processes, such as the development of global markets, global politics or a global public sphere/Weltöffentlichkeit. For a long time, the telegraphs’ ‘nationality’ played an important role in historiography: as an assumed a priori, nationality and imperial competition provided the analytical framework. Interpretations rested upon the assumption that national and imperial interests correlated with corporate interests and that this strong interrelation would help imperial powers, in particular the British Empire, to control their far-flung territory. This scholarship tied in with the idea that imperialism was something made in the European capitals and then implemented ‘out there.’ Telegraph networks thus represented essential foundations for nations’ economic and political benefits and military security. Since the publication of Harold Innis’ Empire and Communications in 1950, one of the dominant themes was the interrelation between communication and the ‘rise and fall’ of empires. Thereafter, the transnational nature of submarine telegraphs was predominantly characterized as the nations’ Struggle for Control of Global Communication.

In particular historians of new imperialism have analyzed the field of telegraphy as one of the main sites for “great power rivalries.” They argue that the principal motive for telegraphic expansion was to secure independent communication channels between mother country and colony. Aside from controlling communication against other imperial rivals, scholarship portrays the technology’s great importance within a narrative of European colonial conquests in Asia and

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20 Rudolf Stichweh suggests that there is one global public as the internal system of the arising Weltpolitik. Jürgen Habermas on the other hand uses the term Öffentlichkeit to denote a distinct bourgeois society. We think that both approaches, Stichweh’s idea of a world system as well as Habermas’ concept of public sphere fall short. Taken into consideration the high degree of disconnections and fragments as well as the high degree of difference instead of homogeneity, it makes more sense to speak in the plural of public spheres. Stichweh, The Genesis and Development of a Global Public Sphere; Habermas, The Structural Transformation of the Public Sphere.


22 Headrick, Strategic and Military Aspects of Submarine Telegraph Cables.


24 Griset and Headrick, Submarine Telegraph Cables, p. 543.
The presence of almost all major submarine telegraph companies, such as the Eastern and Associated Telegraph Companies, in addition to Reuter’s news agency in London seemed to support an argument for Britain’s hegemony over world communication. Both control over news transmission as well as news production, according to Robert Boyce, eventually secured “Britain’s ascendency as a world power.”

While we do not want to refute the imperial thesis entirely, we wish to complement it and reconsider the role of empires and nation state within and for the global media system. New imperial history has shown that imperial systems displayed many racial, gendered, and economic forms and constituted multiple territorializing regimes. Without any doubt, the imperial framework played an important role in structuring cable routes or garnering resources such as gutta percha for cable manufacture. Before the existence the Pacific cables in 1902 and 1904 respectively, the submarine cables never served as a means for exploring new markets or connections, but were instruments to accelerate existing economic, political and cultural connections. The entrepreneurs refused to lay cables where there was “not even a sandbank on which to catch fish” in the words of James Anderson, managing director of the Eastern and Associated Telegraph Companies. Global communication thus often followed colonial pathways and benefited from a global imperial coloniality constructing, as Lars Bluma exemplifies in his chapter on the telegraphs and world fairs, a system of global communication that was deeply entrenched in the logic of imperial power relations as well as Eurocentric notions of civilization.

In a similar fashion, communication devices furthered imperial and national strategies. Communication devices featured prominently in Japan’s schemes for technology development and represented one core pillar of Meiji Japan’s policy of economic transformation and industrialization. After the

26 Boyce, Submarine Cables as a Factor in Britain’s Ascendancy as a World Power, 1850–1914. The oldest proponent of this imperial thesis is Kennedy, Imperial Cable Communications and Strategy, 1870–1914, p. 729.
29 On global coloniality see Conrad and O’Hagan, *German Colonialism: A Short History* as well as Ballantyne and Burton, Empires and the Reach of the Global.
end of the Tokugawa Shogunate and Japan’s isolationist policy (sakoku) in 1868, Japanese leaders quickly realized that in order to avoid colonialism, their country not only had to become militarily powerful, but also technologically sophisticated. Thus starting in the 1870s and “[w]aving the flag of techno-nationalism,” the Japanese government invested heavily in sectors deemed essential for economic development, such as mining, railroads, electric power and communication.\textsuperscript{30} Yet ironically, techno-nationalism depended upon transnational cooperation. As Daqing Yang explores in his chapter, until 1940, the Danish-based Great Northern Telegraph Company featured prominently within Japan’s imperial logic through the build-up of telegraphic connections as the company’s economic interests went hand in hand with those of the Japanese government.\textsuperscript{31}

Despite this obvious interdependence of capitalist and imperialist interests, the cables and cable companies’ implied nationality in previous studies is problematic in several ways. As Dwayne Winseck and Léonard Laborie illustrate in their chapters, methodological nationalism disguises not only the importance of global capitalism, but also the large degree of inter-imperial and international collaboration and cooperation. Territorial and capitalist imperialism formed two distinct aspects of the relationship between communications and empire between 1860 and 1930.\textsuperscript{32} The spaces of capital and communication were not necessarily coterminous with the space of empire. Moreover, these communication spaces were governed internationally and based upon principles of cooperation: the International Telegraph Union was established in 1865 to regulate trans-national landline traffic.\textsuperscript{33} As Laborie shows, debates and negotiations on the international never erased the importance of national company monopolies or national borders, but rather provided new fora to negotiate these relationships.\textsuperscript{34}

Finally, the medium of telegraphy as actual and imagined technology-in-use always also allowed for alternative constructions of community, such as an imagined global communist community in Martin Doll’s chapter.

\textsuperscript{30} Anchordoguy, Nippon Telegraph and Telephone Company (NTT), pp. 508–12.
\textsuperscript{31} Similarly also in his other works: Yang, Technology of Empire as well as Yang, Submarine Cables and the Two Japanese Empires.
\textsuperscript{32} Harvey, The New Imperialism, p. 26.
\textsuperscript{34} On the transnational nation further see Conrad and Osterhammel, Das Kaiserreich transnational.
or the emergence of Indian nationalism as discussed in the chapters of Michael Mann and Amelia Bonea. In India, the telegraphs were essential for not only British colonial control over the subcontinent, but also fostering an Indian newspaper culture at the end of the nineteenth century, which became increasingly nationalistic. At the beginning of the twentieth century, this all-Indian public sphere heavily attacked the British colonial regime as well as the collaborative politics of the Indian National Congress. Turning this protest into a mass phenomenon, Mohandas K. Gandhi drew heavily upon the telegraphs and newspapers. Technology was used to uphold as well as to counter imperial space and thus enabled the empire to ‘talk back.’

Agents|Actors

While telegraphy provides the central focus for this book, the chapters examine telegraphy as part of a broader global media system. Emma Pender and her daughter used multiple media to communicate; indeed, the global media system emerged from an ensemble of technologies, including telephony, the typewriter, print and photography in addition to railway, steamship and automobile transport systems. This assemblage of technologies acted in concerto and created the world-spanning network which fostered processes of integration and fragmentation. While the chapters mainly focus on the telegraphs as prime means of Weltcommunication, they portray telegraphs as the central puzzle piece within a larger media array of global communication.

Furthermore, different people put telegraphy to different uses in different times and places. Contemporaries noted during their debates on submarine cables and world peace in the 1850s that the telegraphs were merely a technical and mechanical extension of human interaction. They remained “a musical instrument, on which operators may play any tune they choose.” This book thus moves away from examining technology in terms of invention or innovation or the technological or innovative ‘firsts’ marked by the mythical dates of 1858/1866 (the Atlantic cable), 1870 (the cable to India), 1878

35 On how the empire talked back see Headrick, A double-edged Sword: Communications and Imperial Control in British India; Ewing, ‘A most Power Instrument for a Despot’: The Telegraph as Trans-national Instrument of Imperial Control and Politicoal Mobilization in the Middle East or Bayly, Empire and Information.
(duplex on Atlantic cable) or 1902 (the Pacific cable & transatlantic wireless transmission). Rather, drawing on David Edgerton’s approach, the chapters focus on the telegraphs, wired and wireless, and other communication devices of the time as technology-in-use. Edgerton’s distinction between innovation and use integrates a history of technology into more general history, provoking questions about class, race and gender in the use of *global communication electric*.

Such an angle further marks the shift in attributing agency from the technology itself to the cable agents. Engineers, telegraphers, journalists or media entrepreneurs feature prominently throughout the pages of this book as the driving forces behind the globalizing forces of telegraphy.

Global historians argue not only for a variety of globalization processes, but also a multiplicity of modernities driven by contemporaries themselves. Globalization is not an impersonal force over which ordinary people have no power, but it is “driven by identifiable actors working through institutions they own and/or control.” Contemporaries’ imagination and practices shaped and formed the content of global communication electric: they imagined who would communicate with whom to what purpose and used their assumptions to draw conclusions on telegraph routes, tariffs and practices. Submarine telegraphy’s exorbitant tariffs, for instance, necessitated short telegrams, a feature that soon came to characterize the submarine cable system. On the transatlantic telegraph market, tariffs quickly dropped from initially £1 per word in 1866 (breaking down the £20/20 words tariff to a one word tariff) to 1 shilling per word in 1888, where they remained stable – and financially out of reach for most – until 1923. Consequently, users followed the basic rule that “[t]he wordier a message and the greater the distance, the higher the charge.” The pressure to be cost-efficient led to ever shorter telegrams and eventually to the development of the ‘telegram style,’ which left

37 Edgerton, From Innovation to Use, p. 12.
38 In this context also see Heilbronner’s essay on technological determinism Heilbronner, Do Machines Make History?
39 Eisenstadt, *Multiple Modernities*.
41 Bright, *Submarine Telegraphs*, pp. 143–4; Winseck and Pike, *Communication and Empire*, p. 146. According to Bernhard Finn there was another tariff reduction in 1904, for which, however, I can find no primary source. Coates and Finn, *A Retrospective Technology Assessment*, p. 87.
42 Wilke, *The Telegraph and Transatlantic Communication Relations*, p. 119.
out anything that was redundant or not essential for the message, making its content, in the words of Emma Pender, “suggestive to the imagination.”

Yet contemporaries’ interactions with telegraphy were entangled in and dependent on larger macrostructures such as the nation state or the empire. One core pillar for John Pender’s success in building up his cable network of the Eastern and Associated Telegraph Companies, for example, were his close ties to “Herbert,” meaning Sir Robert George Wyndham Herbert, Under-Secretary of the British Colonial Office and a key cog in the machinery of British imperialism. Following individual actors thus provides the link between micro- and macro levels of analysis. Still, nation states could be actors, too, and remained important players in global communications.

In her chapter, Wendy Gagen argues that the submarine cable operators of the Eastern and Associated Telegraph Companies were simultaneously entangled in imperial and other, in this case company, structures. The ‘manly telegrapher’ represents a hybrid figure between the English gentleman and the company man. Although the nation remains a vital part of global communications, it was one among many players within a system of worldwide entanglements and interactions.

Use|News

At the time, this new kind of Weltcommunication fostered ideologies of world citizenship and cosmopolitanism influenced by European enlightenment. According to Frank Hartmann, this notion morphed into the current historiographical perception of a larger global entity organized in a global media system. Many scholars see the development of a global submarine cable network as the first step in the history of telecommunications from a Victorian Internet, via a “global public sphere” to the world as a global village in

45 Isabella Löhr makes a similar argument for the edited volume Löhr and Wenzlhuemer, The Nation State and Beyond.
46 Winder, Imagining World Citizenship in the Networked Newspaper; further see, Conrad, Enlightenment in Global History.
47 Hartmann, Globale Medienkultur, pp. 11, 79.
the information age. But how inclusive was the concept of *Weltcommunication* really? The assumption of a unidirectional progression of global communication densification is, at least for the nineteenth century, erroneous. As the exorbitant tariffs of the telegraph system blatantly show, the promise of an all-inclusive *Weltcommunication* was as empty as the analogy of a Victorian internet is misleading. Given that a British farm laborer earned on average 12-14 shillings a week and a skilled artisan between 28 shillings and £2 a week in the late nineteenth century, the 1 shilling per word tariff still characterized telegraphy as a last resort means of communication for many. Submarine and also terrestrial telegraphs never enabled social or mass communication, but remained a specialty service for an exclusive clientele until wireless and the telephone replaced telegraphy as the dominant means of global communication in the 1920s.

Apart from economic communication on the price of gold, cotton and the like, one of the most obvious uses of *global communication* electric was the transmission of news. Early on, newsmakers, such as Julius Reuter, recognized the benefits of telegraphy’s speed and instantaneity for making news faster, albeit not necessarily more ‘newsworthy.’ Before the Atlantic cable of 1866, news gatherers on both sides employed optical telegraphs, hired spotters to locate ships en route or employed rowboats to obtain news from across the ocean as fast as possible. In the mid-nineteenth century, news agencies, such as Havas (Agence France-Presse after 1944), Reuters or Wolff’s Telegraphisches Bureau (WTB) were set up and soon took over ‘global’ news distribution. In a global history of news, journalists, newspapers and in particular news agencies play an important role. They were news wholesalers and through the commodification of news, they operated globally “in the

51 On economic communication see Preda, Socio-Technical Agency in Financial Markets.
52 Ibid., 79; Blondheim, *News over the Wires*.
production and distribution of ‘consciousness’. As we see in the chapters of Michael Mann, Amelia Bonea and Volker Barth, the definition of ‘what is news’ directly related to the workings of the global media system. The definition of news was strongly intertwined with processes of globalization tied to modern capitalism: news, seen as a reformulation of information as a commodity, was constituted in its generic form by the technology-in-use, journalistic debates about ‘objectivity’ and ‘truth,’ as well as the emergence of mass-media markets.

From the very beginning, news providers of any kind, journalists, editors or correspondents, enjoyed special rates from the cable companies. At times, these ‘press telegrams’ cost as little as half price and in the beginning of transatlantic telegraphy, American newspapers could sign up for a dispatch of twenty lines for the morning papers for $900 a day. Accredited agents of newspapers or news agencies could obtain such special rates, if only for political and general news, which had to be intended for publication and written in plain, unabbreviated words. For news providers, the world-spanning system opened up unprecedented opportunities. Its speed allowed news to be transmitted ever faster and thus become ever more current. Already in the summer of 1866 and with a durable working of the first Atlantic cable, The Era marveled over how people could “hear to-day what was done in New York yesterday, and probably, ere long, [they should] have, in the evening’s papers in the Strand, the gossip of the morning in Broadway.” By 1885, it was at all not uncommon to have “a message sent and the answer received within the space of ten minutes.” However, as Volker Barth points out, the communication network also engendered new problems and concerns as business opportunities of making news ever speedier conflicted with evolving journalistic ideals of accuracy and objectivity.

Finally, the globalization of news not only related directly to the policy and cost of transmission or emerging standards and practices of (English-language) journalism, but also furthered processes of news inequality. In the case of India, the country’s dependency on foreign news provided by Reuters created certain asymmetries in communication which persisted long after the demise of colonialism. The global history perspective could fur-

55 Ibid., p. 5.
56 Ibid., pp. 1–2.
57 See articles LXV–LXVII of the ITU conventions for press telegrams.
58 The Era, Topics of the Week, August 5, 1866.
ther enrich debates on this ‘media imperialism,’ which argues that Western media organizations have come to dominate global exchanges of news. After all, global history takes into account the multi-directionality of information flows while still not disregarding established power constituencies and their creation. From 1860 to 1930, tariffs, routes and working routines enabled and restrained journalists and newsmakers in the creation of ‘global’ publics and the commodification of news by both including and excluding users from the benefits and pitfalls of global instantaneity.

Space|Time

While analyzing yesterday’s ocean cables or today’s fiber optic cables and satellites, global communication electric always centers upon questions of the system’s structure and construction as communicational space. The geographies of these spaces may differ widely as they are not only bound to concepts of race, class and gender, but also, as Gordon Winder and Jonas Harvard remind us, to actual topographic restraints. Little remained of global connectivity when wires kept freezing over in the cold of Northern Europe or when there was simply no direct cable connection across the Pacific in 1902. As Emma Pender, buoyant commentator of her husband’s work, pointed out in one of her letters to her daughter, many a telegraph route was “confessedly urgently desired & wanted.” The map of global communication electric changed rather little after the 1880s. At a time when processes of global integration accelerated ever more, the system which provided the basis for these processes became increasingly stagnant. After 1879, when all major trading routes had their cables and all continents could be reached from Europe, no new cable routes of importance were exploited, but only old ones duplicated. Thirteen transatlantic cables existed by 1900, yet none across the Pacific. Any communication between Canada and Australia, for example, still had to pass through London. Communicational space must not necessarily overlap

60 Mathew Zook and Martin Dodge make a similar argument concerning the relevance of geography for today’s internet: Zook, Connected is a Matter of Geography, Dodge and Kitchin, Mapping Cyberspace.
61 Pender, “Letter to her daughter,” January 19, 1878, Cable and Wireless Archive.
62 On the context of Atlantic and versus Pacific history see Mapp, Atlantic History from Imperial, Continental, and Pacific Perspectives.
with the network’s physical geography and rather than diminishing the role of geography or space, the electric telegraph also increased the differences between the locations able to make good use of the possibilities of the new technology and those which could not.

In the mid-nineteenth century, the invention of telegraphy ignited a crisis of space. Although the increasing density of a global maritime transport network as well as the emergence of steamships had accelerated communication in the decades before the telegraphs, the telegraphs sped up communication by a wholly different order of magnitude. The experience of distance in relation to the time needed to cross that distance changed dramatically. Prior to these times, corresponding over long distances was trying. Ordinary mail required a fortnight between Europe and North America. In the case of South America, letters took about a month, for the Far East, one to two months, for Australia and New Zealand, about 70 days’ transmission time. The telegraphs changed not only the speed of communication, but also created new possibilities for control over large distances. Prior to the telegraph, if a merchant sent out his ship to India or the Middle East, there was no way of controlling its course or freight after departure and he could only wait for its return. Now, as Charles Bright, telegraph expert of the time, pointed out, the middle man had almost become obsolete in some departments of international commerce. The advent of wireless at the beginning of the twentieth century expedited this process by discovering the niche of the sea as its biggest potential market. By enabling for ship-to-ship communication and a point-to-many communicational stream, wireless made geographical obstacles, such as oceans or markers, such as the cables’ landing places, even more irrelevant.

One of the most vivid nineteenth-century discourses accompanying the laying of long-distance submarine telegraphs concentrated on the topos of radically altered perceptions of space and time. These expressed themselves in statements concerning the “annihilation of time and distance” or the idea

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63 Kaukiainen, Shrinking the World: Improvements in the Speed of Information Transmission, c. 1820–1870.
65 Bright, Submarine Telegraphs, p. 172.
of “instantaneous intercourse.” Contemporaries were puzzled by the fact that electromagnetic telegraphy seemingly had no speed and “that electricity was present at both ends of the wire at the same instant – instantaneous, immediate,” as Florian Sprenger puts it. The perception of space was also in crisis. Building upon discourses of progress and the railways, contemporaries divided their time period into a pre-telegraphic era, when long distances impeded communication, and a telegraphic era when distance seemed to be shrinking through the dramatic reduction in the time taken to cross it (time-space convergence). Soon, contemporary writers such as Karl Knies, Ernst Kapp or Charles Bright solidified this notion of a “practical shrinkage of the globe.” In media and cultural theory, these ideas found expression in McLuhan’s implosion of place with the electronic age, when the world contracted into a ‘global village,’ Paul Virilio’s and David Harvey’s idea of a “time-space compression” or Anthony Giddens’ “time-space-distanciation.”

This reduction of ocean spaces, such as the Mediterranean or the Atlantic as well as other large terrestrial distances to a “whispering gallery” by means of telegraphy further evoked the sense that global communication networks had constructed new spaces. In the case of the United States southwestern borderlands, as Torsten Kathke shows in his chapter, the creation of ‘new’ spaces through telegraphic communication correlated with processes of identity formation and significantly affected the construction of regional and national identity within and for the territory of Arizona. These new telegraphic spaces more often than not intersected with and reenforced con-

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70 Schivelbusch, Geschichte der Eisenbahnreise.
71 Bright, Submarine Telegraphs, pp. 169, 202; Knies, Der Telegraph als Verkehrsmittel, pp. 242–3.
72 McLuhan, The Gutenberg Galaxy.
73 Virilio and Beitchman, The Aesthetics of Disappearance; Harvey, Between Space and Time: Reflections on the Geographical Imagination. Giddens’ thesis is based upon the idea that via modern means of communication and transport, social relations stretch across distance. He distinguishes between a tribal society when all communication is virtually face to face and which therefore has a low degree of time-space distanciation and capitalist society which is characterized by the fact that much of its communication and interaction takes place across time and space. Kaspersen, Anthony Giddens: An Introduction, p. 54.
74 Trewman's Exeter Flying Post, “Wednesday, August 1, 1866: The Atlantic Telegraph,” August 1, 1866.
cepts of class, gender and, most of all, race. The mastery of the material world by Euro-America from the late eighteenth-century onwards was spurred on in the mid-nineteenth century by a wave of industrialization and technological development, which “increased Europe’s [and North America’s] superiority exponentially in virtually all fields of science and technology”. Of all technologies of the nineteenth century, the telegraph in particular embodied to many Euro-Americans the “ultimate symbol of man’s power over nature” by appearing to harness lightning and put it to work for man’s pleasure. Telegraphy also helped Euro-Americans to set themselves apart from ‘the rest’. As Jürgen Osterhammel put it, in the eighteenth century, Europe often compared itself with Asia; in the nineteenth century, it considered itself incomparable. The example of Arizona provides a particularly illuminating case study of how the telegraph ‘helped’ the region to ‘become white’ by nourishing the dominance of an Anglo-American elite over a largely Anglo-Mexican population.

The telegraphs as emblems of the industrial and communicational revolution of the mid-nineteenth century asked and allowed contemporaries to re-evaluate and re-construct major concepts such as space and time, but also territoriality, agency and belonging. As technology-in-use, they furthered processes of global integration as well as fragmentation, clearly marking those inside and outside the network along the lines of race, class and gender. The electric telegraphs played a key role in multiplying and diversifying the experience of modernity and as such their analysis is of utmost importance for understanding the various layers and meanings of globalization.

The Chapters

Each of the four sections of the book highlights a particular theme of global communication electric: Inter|Nationalisms, Agents|Actors, Use|News and Space|Time. In the opening chapter, Dwayne Winseck examines the global media system in relation to empire and state. He argues for deemphasizing

75 Adas, Machines as the Measure of Men, p. 141; similarly Adas, Dominance by Design.
77 Osterhammel, Europe, the ‘West’ and the Civilizing Mission.
78 Hampf, Radio as Dispositif: The History of the Yet-to-Be-Written User Manuals.
the struggle for control model in favor of investigating the cosmopolitan character of the cable industry and the cartels that cut across national lines and defined the global media system. Similarly to Léonard Laborie, he sees the period between 1860 and 1930 as defined by an incipient globalization of control framework where markets were as important as politics and both domains were intertwined. In his chapter on *the ITU and the Governance of the First Globalization of Telecommunications*, Laborie follows this critique of the struggle for control model. Focusing on the International Telegraph Union, he shows how cooperation between the telegraphic nations and empires not only preceded but survived disagreement among them. As the final contribution in the *Inter|Nationalisms* section, Martin Doll considers communication technologies from socialist and communist point of views and points to political interpretations of telegraphy which scholarship has thus far overlooked. As he illustrates, the wiring of the world not only created a global capitalist economy but – from a Marxist perspective – was also understood as a powerful element of its dialectical reversal by offering the promise of the universal connectibility of the international working class.

In the second section on *Agents|Actors*, Daqing Yang explores the relationship between the state and the company as agents of technological progress in Japan. Highlighting Japan’s new ambitions in Asia and its bureaucratic policies as well as the Danish Great Northern Company’s own business calculations, he shifts the focus from a simplistic narrative of Japan’s continuous struggle for autonomy. Lars Bluma in turn looks at the utopian linkage of telegraphy and the world fairs between 1851 and 1880 as complementary expressions of Western utopian visions of an imaginary future. To contemporaries, both represented modernity and they linked fairs and telegraphs to the vision that technology was the prime mover for social modernization. In the end both produced connected as well as unconnected, civilized and barbarian people. Gender too played a significant role in constructing telegraphic identities. Wendy Gagen’s chapter explores how gender influenced processes of identity formation among the Eastern and Associated Telegraph Cable Companies’ employees. While a distinct company culture and identity as the ‘manly telegrapher’ was important for the companies’ success, it was simultaneously embedded in an ideal of the heroic imperial adventurer and offered a particular expression of ‘Englishness’ lived at the various cable stations around the world. The manly telegrapher thus represented a hybrid figure whose geographical location may have been transnational, while his identity remained very much tied to the national.
The third section on *Use|News* starts with Michael Mann’s chapter on *Telegraphy and the Emergence of an All-India Public Sphere*. He focuses on the social and communicative role of the telegraphs and illustrates how newspapers deeply transformed and shaped the emerging all-India public sphere. He challenges the technological success story of Western ascendancy by examining the colonial context of global communication. Amelia Bonea continues Mann’s analysis by highlighting the complex nature of news in the colonial environment of India as a continually contested field of power relations. Focusing on Reuters in India, she illustrates how negotiations between Reuters, the colonial government of India and Anglo-Indian editors revolved around both access to technologies of communication and the privilege to distribute news to the Indian population. News was a function of both available technology and socio-economic and political factors. With his chapter *Making the Wire Speak. Transnational Techniques of Journalism*, Volker Barth examines how telegraphy changed the role of journalists and their techniques of news production, transmission and verification. In dealing with new, revolutionary means of communication, news businesses and media enterprises had to adapt their daily routines to the requirements of an increasingly well-established world-wide network.

The final section on *Space|Time* starts with Gordon Winder’s chapter on *Telecommunications Technology and News of Disaster*. Winder’s analysis of the *LA Times* from 1917 to 1939 shows how telecommunication technology shaped disaster coverage in two ways. First, in covering distant earthquake disasters, the newspaper used the latest telecommunications technology to produce the news, and in the process celebrated its superior access to the world’s latest stories. Second, the main story often revolved around the newspaper’s own ability to report on earthquakes in faraway places. This chapter thus analyses media fascination with telegraph and radio transmission of the news of earthquakes, and the geographical and social implications of this fascination for how such disasters were understood. Focusing on the global telegraph networks’ margins, Jonas Harvard’s chapter *Northern Experiences of Global Telegraphy* presents an alternative to the grand narratives of steady progress by examining the realities of the electric telegraph at the local level. Harvard examines how two Swedish cities, Helsingborg and Piteå, sparsely populated areas with adverse geographical conditions, interacted with the telegraph. While the possibility of bridging distances through technology might initially have seemed a godsend, Harvard shows that the realities of global communication often faltered on the realities of geography, weather
and local circumstances. In his chapter *Power Lines*, Torsten Kathke explores how telegraphic communication could create spatial identities. The virtual networks of telegraphy connecting Arizona with Washington D.C. helped to replace one elite with another, as an established Anglo-Mexican elite, rooted in the region and its Hispanic cultural traditions, slowly acquiesced to a national-minded Anglo one. Finally, Florian Sprenger reminds us how space was not necessarily annihilated by telegraphy but that contemporaries described and experienced electricity in contradictory ways as both instantaneous and having speed, as both immediate and mediated. As he posits, this distinction between slow speed and no speed is crucial for understanding electrical telegraphy as a medium of global communication: accepting the notion of an annihilation of time and space would risk losing sight of the phantasmatic dimension of technical media, their actual modi operandi and their micro-temporal politics.

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Telegraph wires froze in the cold of Northern Europe endangering not only the global but even the regional functioning, as Jonas Harvard points out. More generally, as reminded in Florian Sprenger’s chapter, contemporaries experienced electricity in contradictory ways and slow speed or no speed were part of this imaginary. How to reshape the history of telegraphy as an agent of globalization?