

The Wiring of the Working Class: On the Interdependence of Telegraphy and Social-Revolutionary Discourses in the Nineteenth-Century

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Research in the field of global media studies so far typically confines the impact of telecommunication in the nineteenth century to the advancement of imperialist politics and the global capitalist economy. In his study *Geopolitik der Literatur (The Geopolitics of Literature)*, for example, Nils Werber provided an overview of perspectives on the connection between media technology and the development of a global communality.¹ His analyses of relevant German prose works and of utopian conceptions led him to conclude that communication technologies in the nineteenth century only served to fuel geopolitical expansionism. These conclusions are widely shared by most studies concerning the impact of communication technology in the nineteenth century.² Other authors concentrate on the effect of communication technologies to advance the world economy.³

In contrast, or rather in addition to these approaches, my chapter addresses other – less commonly considered – political interpretations of communication technologies, namely, from socialist and communist points of view.⁴ I will show that the ‘wiring of the world’ not only created a global capitalist economy but – from a Marxist perspective – was also understood

1 Werber, *Die Geopolitik der Literatur*.

2 For the imperial side see Headrick, *The Tools of Empire*; Kittler, “Geschichte der Kommunikationsmedien”; “Lakanal und Soemmering”; Flichy, *Dynamics of Modern Communication*.

3 The capitalist economy perspective is explored by: Fischer, “‘Touch Someone’: The Telephone Industry Discovers Sociability”; Marvin, *When Old Technologies Were New*; Winseck/Pike, *Communication and Empire*; Wobring, *Die Globalisierung der Telekommunikation im 19. Jahrhundert*.

4 One exception is the book *Media Marx* edited by Jens Schröter, particularly his own article where he reflects upon the relation between Marxism and transmission media. Cf. Schröter, “Übertragung und Explosion – Telegraphie/Telephonie/Transport.”

as a powerful element of its dialectical reversal by offering the promise of the universal connectibility of the international working class.

In order to investigate these connections, the first part of this chapter will consider Benedict Anderson’s ground-breaking theory of ‘imagined communities.’ On this basis, I will ask whether media technology in the eighteenth century not only prepared the ground for an ‘official nationalism’ in the nineteenth century, as he argued, but whether media technology – especially in the form of telegraphy – might also be understood as one source for nineteenth-century social-revolutionary ideals and concepts of global social-revolutionary communality.

Accordingly, the second part of my analysis will investigate how (imagined) structures of communication affected nineteenth-century communist conceptions of political subjects and collectivities, or more precisely, how global communication networks were imagined as immanent political possibilities for ‘changing the world’ – as ‘agents’ for the emancipatory organization of global society. I will support this with reference to Marx’s and Engels’ theories of societal change such as in *The Communist Manifesto* from 1848 or the *Grundrisse. Foundations of the Critique of Political Economy* from 1857/58. If one takes a closer look at their texts, one can show that – in contrast to established interpretations – Marx and Engels based their analyses not only on industrial technology particularly on the machine, but also on the field of communication. Against this background it will become apparent that the telegraph was perceived by them to play a relatively important role in the global process of social transformation.

The Technologically Driven Formation of (Bourgeois) ‘Imagined Communities’ (Benedict Anderson)

In his work *Imagined Communities*, Benedict Anderson showed that the growth of the printing industry and the reception of newspapers on a massive scale in the eighteenth century led to readers’ historically new experience that they constituted a homogeneous linguistic community. This created new forms of imagined communities. The readers “gradually became aware of the hundreds of thousands, even millions, of people in their particular language-field [...]. These fellow-readers, to whom they were connected through print, formed, in their secular, particular, visible invisibility, the embryo of

the nationally imagined community [...].⁵ Anderson called these new practices of newspaper reading a “mass ceremony,” because “each communicant is well aware that the ceremony he performs is being replicated simultaneously by thousands (or millions) of others of whose existence he is confident, yet of whose identity he has not the slightest notion. [...] What more vivid figure for the secular, historically clocked, imagined community can be envisioned?”⁶ In order to understand this argument in its historical context, one might supplement this account by explicitly mentioning two additional aspects of Anderson’s argument: first, he insists that the impact of the printing press cannot be seen in isolation from the historically specific socio-political situation, namely the logic of the market in the development of capitalism. Hence for Anderson, imagined communities were only made possible by the fact that the “accumulation of technological innovations in the fields of ship-building, navigation, horology and cartography” between the sixteenth and the end of the eighteenth century was “mediated through print-capitalism.”⁷ In other words, Anderson in no way subscribed to media or technological determinism. Second, the experience of community is necessarily the experience of a “community in anonymity.”⁸

At this point, I would like to raise the question of whether this kind of ‘imagined community’ not only led to an official nationalism in the nineteenth century, but also formed the embryo of a certain sense of global communality. Interestingly enough, even if Anderson touches upon technological developments like sailing ships and steamships, railways, motor transport and aviation – as well as, in footnotes, radio broadcasting and television – there is not a single passage in which he even mentions telegraphic communication.⁹

Nevertheless, Anderson drew some interesting observations from the impact of written language, which he termed, presumably to stress the power of the printing press, “print-language” – an impact which I wish to apply to

5 Anderson, *Imagined Communities*, p. 44.

6 *Ibid.*, p. 35.

7 *Ibid.*, pp. 43–44; 188. My emphasis.

8 *Ibid.*, p. 36. Anderson explains: “It became conceivable to dwell on the Peruvian altiplano, on the pampas of Argentina, or by the harbours of ‘New’ England, and yet feel connected to certain regions or communities, thousands of miles away, in England or the Iberian peninsula. One could be fully aware of sharing a language and a religious faith (to varying degrees), customs and traditions, without any great expectation of ever meeting one’s 2 partners.” *Ibid.*, p. 188.

9 *Ibid.*, pp. 54, 61, 115 and 151.

the case of telegraphy. According to Anderson, the factory-owner in Lille was connected to his counterpart in Lyon “only by reverberation. They [...] did come to visualize in a general way the existence of thousands and thousands like themselves through print-language.”¹⁰ From this Anderson concluded that “in world-historical terms bourgeoisies were the first classes to achieve solidarities on an essentially imagined basis.”¹¹ Starting from this idea of imagining, we can pursue two theoretical paths: first, if print-language has as strong an impact as Anderson argued, telegraphy must at least be considered as a sort of amplifier, a reinforcer of the particular imagined communities produced by the new forms of print-language. I will return to this idea later on. Second, and more strikingly, if we consider the emerging codes of telegraphy in the nineteenth century as constituting a new abstract and *universal language*, we can extend Anderson’s conception of regional linguistic communities to the idea of a truly universal principle of global community.

On the one hand, one might argue on a concrete level that telegraphic codes were restricting and controlled by those who had access to them and could read them. On the other hand, in spite of this factual institutional limitations, the mere availability of the universal communication via the telegraph (even if it was actually often not used) fuelled the imagination of the people and propagated a process that disseminated an abstract idea of humankind, fully in line with the project of the Enlightenment and French Revolution: And, indeed, even the earlier establishment of optical telegraphy in France after the French Revolution can be linked to contemporary attempts to homogenize and standardize the calendar as well as to projects to reform the system of weights and measures according to principles of rationality, simplicity and universal validity.¹² The abstract (visual) code of optical telegraphy was explicitly tied to the idea of a universal language.¹³ Ignace Chappe, a member of the Legislative Assembly and the brother of the inventor Charles Chappe, would later make a similar argument. He claimed that the recent technological development forged not a “characteristica universalis” as sketched out by Gottfried Wilhelm Leibniz but at least a language “that becomes almost universal in that it indicates combinations of

10 *Ibid.*, p. 77.

11 *Ibid.*

12 Flichy, *Dynamics of Modern Communication*, pp. 12–17; Kula, *Measures and Men*; Baczko, *Utopian Lights*, pp. 159 and 170–173.

13 Flichy, *Dynamics of Modern Communication*, pp. 11–15. See also: Ozouf, *L'école de la France*, p. 27.

numbers instead of words, and that the manner of expressing these numbers is generally known and can be applied to the words which compose all dictionaries.¹⁴ Nevertheless, for Chappe, this was more a question of efficiency than of universal understanding, because in connection with telegraphic language, the “aim is not to find a language which is easy to learn without a dictionary (Leibniz’s expression in his letter to M. Renard) but to find the means to express many things with few signs [...]”.¹⁵

Through this process of reducing and abstracting language to a series of coded numbers or signs, the medium of telegraphy created a sense of similarity, quick connectibility and supra-regional communality. This might remind us of McLuhan’s famous elaborations in *Understanding Media* that the organic character of electricity led to a worldwide co-presence: “The simultaneity of electric communication, also characteristic of our nervous system, makes each of us present and accessible to every other person in the world [...]”.¹⁶ But I would like to stake out a position unlike McLuhan’s fusion of organicist positions with religious or, rather, Christological arguments. Rather than understanding telegraphy as an “extension of man,” in accordance with McLuhan’s hypothesis – an extension which would enrich and supplement the living body – telegraphy should be interpreted as a medium of abstraction. Indeed, it must be seen as first creating the abstract language that rendered the very idea of a general or universal public conceivable. Electric telegraphy – with its specific experimental codes – abstracted from all particularities of the human communicative apparatus (e.g. acoustic signifiers like regional accents and tonality or visual signs as skin colour or gender) and consisted instead of a purely mathematical code. This mathematical abstraction permitted the idea of a human being *per se* to come to the fore, in accordance with the Enlightenment vision of universal human reason and rationality. This process of abstraction engendered in Walter Benjamin’s words “humanity’s whole constitution” (*Verfassung der Menschheit*).¹⁷

Through this technological abstraction, a new type of supra-individuality was brought into play, an idea reflected in Marx’s use of Feuerbach’s concept

14 Leibniz, “On the General Characteristic,” pp. 221–228 and Chappe, *Histoire de la télégraphie*, pp. 136, English translation quoted from: Flichy, *Dynamics of Modern Communication*, p. 15.

15 Ibid.

16 McLuhan, *Understanding Media*, p. 333.

17 Benjamin, “The Work of Art in the Age of Its Technological Reproducibility [Second Version],” p. 27.

of “species being” (*Gattungswesen*). In his early *Economic and Philosophical Manuscripts* from 1844, Marx defined man as a species-being “in the sense that he makes the community (his own as well as those of other things) his object both practically and theoretically, but also (and this is simply another expression for the same thing) in the sense that he treats himself as the present, living species, as a universal and consequently free being.”¹⁸ In this context, Marx, with a nearly humanistic idealization (that only occurs in his early works), articulated the idea that the test of man’s level of development is “how far man’s needs have become human needs, and consequently how far the other person, as a person, has become one of his needs, and to what extent he is in his individual existence at the same time a social being [*Gemeinwesen*].”¹⁹

At the beginning of the twentieth century, the German philosopher Helmuth Plessner diagnosed the internationalist cosmopolitan communism developed in Marx’s later writings as appealing to a “supra-national world-brotherhood”, a “unity out of and above all differences [...]”.²⁰ According to Plessner’s interpretation, Marx based this “unity of all persons” simply on their humanity and this produces a sufficient condition “to found, at least, a community of ideas, justice and conviction.”²¹ Plessner concluded from this that this “form of the communist ethos points to [...] a community of the ideal [*Gemeinschaft der Sache*] through partnership in one and the same value.”²² This form of communism – according to Plessner deeply rooted in the eighteenth century and in the Enlightenment – “is resolutely rational and intellectual. It operates with an abstract universality [...]”.²³ Plessner connected this abstract universality to a conception of non-coercive persuasion operating through reason and understanding. This form of persuasion provides the principle of universal communality.²⁴

My point here is to demonstrate that nineteenth-century media such as telegraphy – in combination with infrastructural developments including the establishment of railway tracks and steamboat lines, the precondition of global traffic (in German: *Weltverkehr*, sometimes translated as “world

18 Marx, “Economic and Philosophical Manuscripts [Excerpts],” p. 100.

19 Ibid., pp. 126–127.

20 Plessner, *The Limits of Community*, pp. 91–93.

21 Ibid., p. 92. Plessner’s emphasis.

22 Ibid. Plessner’s emphasis.

23 Ibid., p. 93.

24 Ibid.

intercourse") – provided a necessary supplement to the concept of abstract humanity by offering the *promise* of a universal connectibility. The word promise has to be stressed here in order to distinguish analytically between imagined and actual connectivity (the latter prominently assumed by McLuhan). At least McLuhan's already quoted stark statement about the accessibility of "each of us [...] to every other person in the world" has to be put into perspective, because in the beginning, technologies like telegraphy were far from mass media intended for everyone's use.²⁵ However, in an imaginary realm, each individual human being *seemed to be* reachable and addressable. An abstract general public, a public that would embody a principle of solidarity, first became conceivable on the basis of this idea of universal addressability.²⁶ In other words, technologies of communication such as telegraphy represented – regardless of their actual use – a medium addressing not the individual human being in his particularity but mankind as such. Because humanity was conceived of as universally accessible, each individual human was understood to be "reachable" through universal principles of persuasion. In Marx's terms, a "socialized humanity" (*gesellschaftliche Menschheit*) came into being.²⁷

Anderson underlined that "the most important thing about language is its capacity for generating imagined communities, building in effect particular [bourgeois, M.D.] solidarities."²⁸ For Marx and other communists, however, the economically and technologically driven imagined solidarity of the bourgeoisie became at a certain historical point in the nineteenth century the principle for the development of its counterpart: the universal demands of the newly constituted proletariat. Engels wrote 1870 that in "proportion as the bourgeoisie develops its industry, commerce and means of communication, in the same proportion it increases the numbers of the proletariat

25 McLuhan, *Understanding Media*, p. 333.

26 This abstract general public has to be distinguished from Rudolf Stichweh's "global public sphere" or "world public." Whereas Stichweh's concept is linked to distributive mass media spreading opinions to – for the most part – the communicative fiction of a passive homogeneous 'audience' "not doing the acting but being observers," the abstract general public focused on here is rather linked to how communication media fueled the ideal of political mobilization, of permitting all actors to communicate mutually and of actively involving them in societal change (cf. Stichweh, "The Genesis of a Global Public Sphere," pp. 26–29).

27 Marx, "Theses on Feuerbach," pp. 145.

28 Anderson, *Imagined Communities*, p. 133.

[...]."²⁹ To support this abstract thesis, let me refer to other specific passages in which Marx explicitly mentioned recent developments in technologies of communication. These citations will also show that Marshall McLuhan was fundamentally wrong when he wrote in *Understanding Media*: "Marx and his followers [...] reckoned without understanding the dynamics of the new media of communication. Marx based his analysis most untimely on the machine, just as the telegraph and other implosive forms began to reverse the mechanical dynamic [...]."³⁰ This more or less unsubstantiated criticism can also be found a few pages later, when McLuhan concluded that "[w]edded as they are to nineteenth-century industrial technology as the basis of class liberation, nothing could be more subversive of the Marxian dialectic than the idea that linguistic media shape social development, as much as do the means of production."³¹ This critique on the exclusion of "language, signs and communication" from the realm of productive force is later adopted from Jean Baudrillard in his famous essay "Requiem for the Media." But Baudrillard even pushed the argument forward, when he accused Marx not only of neglecting to conceptualize "railroads as 'media,'" but also of ignoring "technological evolution in general, except from the point of view of production."³² When Baudrillard wrote that only Hans Magnus Enzensberger in his 1970 article "Constituents of a Theory of the Media" managed to include the field of signification and communication into "the analysis in terms of productive forces" and thus addressed the blind spot and "the immense retardation of classical Marxist theory," he was as wrong as McLuhan.³³ On the contrary, Marx and Engels themselves already theoretically undermined this naïve grasp of the Marxian dialectic – relegating the domain of communication to the superstructure (*Überbau*) – as they were well aware of the massive impact of the new technologies of communication, notably telegraphy.

29 Engels, "Preface [to the Second Edition of 'The Peasant War in Germany']," p. 97.

30 McLuhan, *Understanding Media*, p. 58.

31 *Ibid.*, p. 74.

32 Baudrillard, "Requiem for the Media," p. 164.

33 Enzensberger, "Constituents of a Theory of the Media," pp. 13–36.

Discourses on the Economically and Technologically Driven Formation of a Worldwide Union of the Proletariat (Marx and Engels)

In their writings Marx and Engels constantly referred to the global expansion of the Bourgeoisie, a development that is not only driven by economic constraints to constantly enlarge the market but also massively propelled by newly invented communication technologies like telegraphy. In the *Communist Manifesto* (1847/48), Marx and Engels wrote:

The need of a constantly expanding market for its products chases the bourgeoisie over the entire surface of the globe. It must nestle everywhere, settle everywhere, establish connections everywhere. [...] The bourgeoisie, by the rapid improvement of all instruments of production, by the *immensely facilitated means of communication*, draws all, even the most barbarian, nations into civilisation. [...] The bourgeoisie, during its rule of scarce 100 years, has created more massive and more colossal *productive forces* than have all preceding generations together. Subjection of nature's forces to man, machinery, application of chemistry to industry and agriculture, steam-navigation, railways, *electric telegraphs*, clearing of whole continents for cultivation, canalisation of rivers, whole populations conjured out of the ground – what earlier century had even a presentiment that such *productive forces* slumbered in the lap of social labour?³⁴

It is worth noting that in this passage Marx and Engels subsumed electric telegraphs under productive forces – productive forces that help to improve or rather to accelerate the circulation of commodities. Later, in the 1857/58 *Grundrisse*, Marx wrote explicitly: “The improvement of the means of transport and communication likewise falls into the category of the development of the productive forces generally.”³⁵ And already in 1855 when Marx wrote about “electric telegraphs transforming the whole of Europe in one single Stock Exchange” it is crystal-clear that he did not in the least underestimate the social and economic effects of the new communication technology.³⁶

Instead, Marx commented on its immense socio-economic impact inasmuch as it strongly accelerated the circulation of people, capital and signs.

34 Marx/Engels, *The Communist Manifesto*, pp. 38–40. My emphases.

35 Marx, *Grundrisse*, p. 523.

36 Marx, “The Commercial Crisis in Britain,” p. 37. In this context one should recall that already in the beginning the most frequent practical public use of the electric telegraph was to communicate price trends on the stock exchange. Cf. Flichy, *Dynamics of Modern Communication*, p. 50.

For example, in the third volume of *Capital*, far less consulted than the first volume, Marx further elaborated on the interrelation of telegraphy and the socioeconomic sphere. He explained:

The main means of cutting circulation time has been improved communications. And the last fifty years have brought a revolution in this respect that is comparable only with the industrial revolution of the second half of the last century. On land the Macadamised road has been replaced by the railway, while at sea the slow and irregular sailing ship has been driven into the background by the rapid and regular steamer line, the whole earth has being girded by *telegraph cables*.³⁷

A similar argument concerning the massive impact of recent “technologies of communication” with a focus on the rapid acceleration of economic progress can be found in a text by Engels from 1850. In the context of his discussion of the “growth of German industry and commerce, of railways, telegraphs and ocean steam shipping since 1848” Engels wrote: “[T]his progress [...] is unprecedented for Germany and has accomplished more in twenty years than was previously done in a whole century.”³⁸

Just as a side note to these quotations. While Marx and Engels serve as an object of study rather than as a theoretical point of departure, I fully agree with the argument they implicitly invoke here that the social impact of telegraphy cannot be examined in isolation from other technological developments, such as the construction of railway tracks and steamboat lines. Against this background one also has to bear in mind that the word “communication” in the nineteenth century – in English, French (*communication*) and German (*Kommunikation*) – was used in a far broader sense than it is today, comprising every means of connecting at least two things. At the time, it was commonly employed to describe any kind of traffic and connection and thus even to denote architectural connections within complexes of buildings.³⁹ Accordingly, telegraphy as a means of communication is for Marx and Engels subsumed under means of transport as only one element within the bigger picture of modern technology. Against this background, historians who write about the socio-economic impact of telegraphy might be well advised not to lose sight of the wider context of their object of investigation.

37 Marx, *Capital*, vol. 3, p. 164. My emphasis.

38 Engels, “Preface [to the Second Edition of ‘The Peasant War in Germany’],” p. 96.

39 Cf. “communication, n.,” in: Oxford English Dictionary.

In the context of an analysis of how Marx and Engels conceived the effects of communication technology, in particular telegraphy, on society one much debated general question has to be addressed here concerning whether both are closer to a social and economic determinism or to a technological determinism – Marx is constantly accused of the former. A closer look at the passages just quoted seems to imply that the difficulty cannot be resolved conclusively, since one can interpret the relevant passages in either way.⁴⁰ On the one hand, one is confronted with sentences like “electric telegraphs transforming...” which presuppose a more media-materialist approach, in particular implying that the telegraph (along with other communication technologies) propelled the development of a European stock exchange and of a world economy. On the other hand, one can find in the paragraphs already quoted phrases stating that “The bourgeoisie, during its rule of scarce 100 years, has created [...] electric telegraphy.”⁴¹ These imply a certain predominance of social forces, notably that the “bourgeois capitalists” invented and further developed these new technologies for their economic purposes. As a way out of this obvious paradox, one is inclined to suppose that Marx and Engels had a much more balanced view, namely that both of the determining forces, social as well as technological, are intrinsically interrelated. This would lead to the conclusion that as a whole, for Marx and Engels, technological development, as well as the use and the socio-economic effects of the productive forces of communication technologies, have to be understood as non-intentional effects *both* of the economic need of an ever increasing surplus value *and* of the mere existence of technological “discoveries that have not been called for [...]”⁴² For this paper, this means that we have to question the common denunciation of Marx as solely adhering to an oversimplified economic determinism as regards his elaborations on telegraphy.

40 However, Hanno Pahl tries to figure out this problem by arguing historically and reasoning that Marx’s technological determinism that can yet be found in the *German Ideology* later, in the *Grundrisse*, gave way to a kind of social determinism, assuming that the development of technology can be solely put down to the social. Cf. Pahl, “Marx, Luhmann, Kritische Gesellschaftstheorie [Interview, Teil 2],” no page.

41 Marx/Engels, *The Communist Manifesto*, p. 40. A similar argument can be found in *Capital* where Marx elaborates on the use of productive forces “in order to consume the forces of nature productively.” In this context he mentions for example that, once discovered, the knowledge of “magnetization of iron by electricity” is free of cost, but its appliance for “the purposes of telegraphy etc. necessitates a costly and extensive apparatus” (Marx, *Capital*, vol. 1, pp. 508–509).

42 Brecht, “The Radio as an Apparatus of Communication,” p. 51.

A passage from the *Grundrisse* about the influence of the new possibilities of economic information exchange on people’s individual actions, as well as the influence of the latter on the former, might serve as evidence for this hypothesis:

[I]nstitutions emerge whereby each individual can acquire information about the activity of all others and attempt to adjust his own accordingly, e.g. lists of current prices, rates of exchange, interconnections between those active in commerce through the mails, *telegraphs* etc. (the *means of communication* of course grow at the same time). (This means that, although the total supply and demand are independent of the actions of each individual, everyone attempts to inform himself about them, and this knowledge then reacts back in practice on the total supply and demand. Although on the given standpoint, alienation is not overcome by these means, *nevertheless relations and connections are introduced* thereby which include the possibility of suspending the old standpoint.)⁴³

Since the last sentence already invokes a certain dialectical development of a socio-economic backlash or countermovement, I shall turn to my crucial meta-Marxist argument for the necessity of a dialectical reversal of bourgeois technologies of communication. Bearing in mind the argument from the *Communist Manifesto* (that the bourgeoisie is urged to spread its trade relations over the entire surface of the globe), one might not be surprised that Marx dialectically predicted its necessary politico-historical consequence. In the same paragraph of the *Grundrisse* from which the preceding quotation is derived, he argued that, together with the formation of the global capitalist market system, the circumstances to transcend it were gradually being produced: “In the case of the *world market*, the connection of the individual with all, but at the same time also the *independence of this connection from the individual*, have developed to such a high level that the formation of the world market already at the same time contains the conditions for going beyond it.”⁴⁴ In other words, for Marx, the fast economic developments of capitalism fuelled inter alia by communication technologies necessarily lead to the vast aggravation of social conditions and thus prepare the conditions of its own downfall. In a footnote in the third volume of *Capital*, Engels argued in the same vein dialectically that “[t]he colossal expansion of means of communication – ocean-going steamships, railways, *electric telegraphs*, the Suez canal – has genuinely established the world market for the first time. [...] All these things mean that most of the former breeding-grounds

43 Marx, *Grundrisse*, p. 161. My emphases.

44 Ibid. Marx’s emphases.

of crises and occasions for crisis formation have been abolished or severely weakened.⁴⁵ But according to Engels these measures to combat recent crises only pave the way for even worse economic disasters to come, because “each of the elements that counteracts a repetition of the old crises, conceals within it the nucleus of a far more violent future crisis.”⁴⁶

Against this background, the “means of communication” played an important role not only in shortening the circulation process, but also – as a result of this – in sharpening class antagonisms:⁴⁷ According to Engels, along with machines like steam-engines or the mechanical weaving looms, the railways and electric telegraphs “are gradually and remorselessly destroying all the relics of feudal and guild conditions and are reducing all the petty social contradictions surviving from former times to the one contradiction of world-historical significance: that between capital and labour.”⁴⁸ In *The Communist Manifesto*, a similar argument claimed that the “epoch of bourgeoisie” had simplified class antagonisms by increasingly dividing society “into two great classes directly facing each other – bourgeoisie and proletariat.”⁴⁹ But this diagnosis does not have to be interpreted as mere resignation because this intensified situation according to Marx is the one necessary and therefore imminent precondition for the revolutionary reversal of society. So, it would be just a question of time until the class contradictions, full of suspense, would unfold: “[W]ithin bourgeois society [...] there arise *relations of circulation* as well as of production which are so many mines to explode it.”⁵⁰ Again, the very relations of transportation and exchange that were indirectly produced by capitalism serve as precondition for its destruction: “[I]f we did not find concealed in society as it is the material conditions of production and the corresponding relations of exchange prerequisite for a classless society, then all attempts to explode it would be quixotic.”⁵¹ This development of explosive forces is caused by communication technology among other

45 Marx, *Capital*, vol. 3, pp. 620. My emphasis.

46 Ibid, p. 621.

47 In “Value, Price and Profit” Marx speaks about the “shortening of time and space by means of communication and transport.” Marx, “Draft for the Final Passage of ‘Value, Price and Profit’”, p. 165. And in another text from 1862/63 he precisely lists the specific means “to shorten the circulation process, like railways, roads, navigation, telegraphs.” Marx, *Theories of Surplus-Value*, p. 491.

48 Engels, “The Prussian Military Question and the German Workers’ Party,” p. 70.

49 Marx/Engels, *The Communist Manifesto*, p. 34.

50 Marx, *Grundrisse*, p. 159. My emphasis.

51 Ibid.

factors; it is, as Engels emphasized – rigorously following the concept of historical materialism – a historical necessity,

[b]ecause large-scale industry, the development of machinery, *communications* and world trade are assuming such gigantic proportions that their exploitation by individual capitalists is becoming daily more impossible; because the mounting crises of the world market are the most striking proof of this; because the productive forces and the *means of exchange* [*Verkehrsmittel*] which characterise the present mode of production and *exchange* [*Verkehr*] are daily becoming increasingly more than individual exchange [*Austausch*] and private property can manage; because, in a word, the moment is approaching when communal management of industry, of agriculture and of exchange [*Austausch*] will become a material necessity for industry, agriculture and exchange [*Austausch*] themselves — for this reason private property will be abolished.⁵²

In other words, if communication technologies as a productive force play a pivotal role in the expansion of the capitalist economy and hence of the bourgeoisie, from a Marxist perspective, this technology must play the same role for the proletariat as long as they succeed in gaining access to it through a revolutionary act, thus acting according to historical necessity.⁵³ Engels wrote in 1876–78: “In making itself the master of all the means of production, in order to use them in accordance with a social plan, society puts an end to the former subjection of men to their own means of production. [...] The old mode of production must therefore be revolutionised from top to bottom.”⁵⁴ One communist method to achieve this goal was to socialize the “means of production” including first of all the technologies of communication. As Engels underlined: “This necessity for conversion into State property is felt first in the great institutions for intercourse and communication – the post office, the telegraphs, the railways.”⁵⁵ This quotation perfectly shows how wrong McLuhan and Baudrillard were, when they prematurely

52 Engels, “The Communists and Karl Heinzen,” p. 304. My emphasis.

53 This logic is also the core of Enzensberger’s later argument (cf. Enzensberger, “Constituents of a Theory of the Media”).

54 Engels, “Anti-Dühring,” p. 279. Noticeable in 1867, Marx also takes into account the amount of workers in the so called new industries: “According to the census of 1861 for England and Wales, we find in the gas industry (gas-works, production of mechanical apparatus, servants of the gas companies, &c), 15,211 persons; in telegraphy, 2,399; in photography, 2,366; in steam navigation, 3,570; and in railways, 70,599.” Marx, *Capital*, p. 573.

55 Engels, “Socialism: Utopian and Scientific,” p. 711.

condemned Marx and Engels for allegedly underestimating the relevance of contemporary communications institutions for shaping social development.

If successful, a kind of industrial paradise awaited the protagonists. The feral productive forces formerly terrorizing the industrial society would thus be tamed and in the future be put to the service of mankind, as Engels put it poetically in the same text: "But when once their nature is understood, they can, in the hands of the producers working together, be transformed from master demons into willing servants."⁵⁶ Like Marx in *Capital*,⁵⁷ Engels elaborates on the means of utilizing the forces of nature productively with reference to the telegraph given that it does not stay in the hands of the bourgeoisie but that it will be socialized in order to follow the demands of the people:

The difference is as that between the destructive force of electricity in the lightning of the storm, and electricity under command in the telegraph and the voltaic arc; the difference between a conflagration, and fire working in the service of man. With this recognition, at last, of the real nature of the productive forces of today, the social anarchy of production gives place to a social regulation of production upon a definite plan, according to the needs of the community and of each individual.⁵⁸

Yet in the context of the revolutionary process, the very technological conditions of the bourgeois capitalist market served for Marx and Engels as the concrete means to help "WORKING MEN OF ALL COUNTRIES [...] UNITE!" Again, in the *Communist Manifesto*, Marx and Engels spoke of "immensely facilitated means of communication" and specified that "the ever expanding union of the workers [...] is helped on by the improved means of communication that are created by modern industry, and that place the workers of different localities in contact with one another. It was just this contact that was needed to centralise the numerous local struggles, all of the same character, into one [national] struggle between classes."⁵⁹ Like their counterpart, the bourgeoisie which, as already quoted, "must nestle everywhere, settle everywhere, establish connections everywhere" communists make use of the very same technology but instead with reversed aims. In place of the Bourgeoisie's pursuit of individual profit based on private property, communists promote international understanding based on common property: "Finally, they labour everywhere for the union [*Verbindung*] and

⁵⁶ Ibid., p. 712.

⁵⁷ See footnote 41.

⁵⁸ Marx, *Grundrisse*, p. 712.

⁵⁹ Marx/Engels, *The Communist Manifesto*, pp. 46–47.

agreement [*Verständigung*] of the democratic parties of all countries."⁶⁰ In a later text from 1894 Engels specified retrospectively the importance of communication technologies like the telegraph for that purpose: "It took a whole quarter of a century from the foundation of the International before [...] unity could be established at least in respect of most general economic viewpoints. And that with our *means of communication* – railways, *telegraph*, giant industrial cities, the press, organized people's assemblies."⁶¹

The means of communication – railways, steamboats and telegraphy – functioned in this context as no more than global facilitators of the worldwide simultaneous unification of the working class. Communication media were conceived as liberatory, as Baudrillard rightly summarized the Marxist scheme, but in order to unfold their full potential "it is necessary to liberate them."⁶² Thus to exploit global communication for emancipatory political goals, it had to be brought immediately and entirely under communist control,⁶³ as Marx states in the *The German Ideology*: "Empirically, communism is only possible as the act of the dominant people 'all at once' and simultaneously, which presupposes the universal development of productive forces and the world intercourse [*Weltverkehr*] bound up with communism."⁶⁴

From a metaperspective, this technologically facilitated global social-revolutionary communality in Marx and Engels' texts might also be interpreted by reference to Anderson's thoughts about 'imagined communities.' Due to telegraphy and its promise of universal connectivity, the working class gradually became aware of the hundreds of thousands, even millions, of fellow-workers all over the world. Hence, the attributed political agency of communication media like telegraphy was less driven by actual emancipatory media practices but more or less by their mere possibility. Nevertheless, it fuelled the idea of bringing working men of all countries further together to form the 'imagined community' of a communist international, of a globally organized proletariat. So, even if the connectivity existed only potentially, one might argue, this promise in and of itself had a huge historical influence on the development and strengthening of the communist movement.

⁶⁰ Ibid., p. 84.

⁶¹ Engels, "On the History of Early Christianity," pp. 457–458.

⁶² Baudrillard, "Requiem for the Media," p. 168.

⁶³ For a detailed account of the significance of the concept of simultaneity in nineteenth century media history see: Uricchio, *Media, Simultaneity, Convergence*.

⁶⁴ Marx, *The German Ideology*, p. 56.

Conclusion

Others have since built on Marx's and Engels' approach to media technology and have taken on both their belief that media were in the wrong hands and their aspirations to take over the media in order to exploit their vast political possibilities. In his famous essay "The Radio as an Apparatus of Communication," Brecht argued that radio had to be changed from a medium of entertainment and top-down distribution of information into a medium of communication, a medium that enabled exchange. In particular, radio had to become a medium that should bring the participant "into a relationship instead of isolating him [...]." ⁶⁵ Brecht described radio – a discovery that had "not been called for" – in the tradition of Marx as a technology that was more advanced than society urging the people to strive for radical social change by overthrowing the existing institutions:

When I say that the radio or the theatre 'could' do so-and-so I am aware that these vast institutions cannot do all they 'could,' and not even all they want. But it is not at all our job to renovate ideological institutions on the basis of the existing social order by means of innovations. Instead our innovations must force them to surrender that basis. So: For innovations, against renovation! [...] Impracticable in the current social order, practicable in another one, these suggestions – which, after all, only form the natural consequence of technical development – serve for the propagation and formation of this *other* order. ⁶⁶

Later, in 1970, Enzensberger would react to this approach by sketching out a "socialist media theory" which – based on the assumption that the "new media are egalitarian in structure" – focused on taking the "promises of the media" seriously. In order to fulfil the "collective wishes [...] to take part in the social process on a local, national and international scale" Enzensberger demanded a more "emancipatory use of media." ⁶⁷ In line with Marx's and Engels' ideas about the seizure of communication technology and institutions due to their socio-political impact, Enzensberger argued about "the mobilizing power of the media" in a very Brechtian way: "One immediate consequence of the structural nature of the new media is that none of the

65 Brecht, "The Radio as an Apparatus of Communication," p. 51.

66 Ibid., pp. 52–53. The last part is omitted in the English version of the text and translated from German from: Brecht, "Der Rundfunk als Kommunikationsapparat," p. 557.

67 Enzensberger, "Constituents of a Theory of the Media," pp. 14, 20 and 25–26.

régimes at present in power can release their potential. Only a free socialist society will be able to make them fully productive." ⁶⁸

These arguments have been influential for all types of techno-optimists up to the present day. But what often remains unacknowledged are their Marxist roots. Most strikingly, late twentieth century discourses about the emancipatory aspects of the internet display an odd mingling of rather disparate thoughts like social utopist, Marxist and liberalist ideas. Either these considerations are connected to imagined virtual communities, which serve as prime examples of a future liberated society as in Howard Rheingold's writings or the new information technologies are conceived of as emancipatory and liberatory per se through references to Brecht and Enzensberger. ⁶⁹ Alexander Galloway concisely summed up the techno-optimism of our day by calling the qualities Enzensberger attributed to an emancipatory use of media as "a perfect foreshadowing of today's most optimistic descriptions of the Internet." ⁷⁰ Accordingly, the decentralized forms of internet communication are for the most part comprehended as models of striving for liberty and independence on a larger scale, as in Jeff Jarvis' eulogy of publicness *Public Parts*: "The net [...] is our tool of disruption, a catalyst that breaks old bonds and sets us loose to explore our natures anew. [...] This transformation also takes momentous form: revolutions, dead industries, economic upheaval. We atomize. We re-form." ⁷¹ Wael Ghonim, one of the major activists in the Egyptian uprising puts it more briefly: "[I]f you want to liberate a society just give them the internet." ⁷² These discursively constructed political impacts of new media occasionally come under scrutiny. ⁷³ But

68 Ibid., p. 21.

69 See for example: Rheingold, *The Virtual Community*.

70 Galloway, *Protocol*, p. 58.

71 Jarvis, *Public Parts*, p. 10. One might even go as far as to say that the phrase about the exploration of human nature is a kind of echo of Marx's idea of species-being as already described above.

72 Wael Ghonim in: Cohen, "Google's Wael Ghonim Thanks Facebook for Revolution;" cf. for a general account of the revolutionary impact of new media and the internet: Shirky, "The Political Power of Social Media;" Shirky, *Cognitive Surplus*. For general discourses about the liberating power of the internet see: Galloway/Thacker, *The Exploit*; Atton, *An Alternative Internet*; Hardt/Negri, *Multitude*; Rheingold, *Smart Mobs*. The perspective on social media is explored in: Jarvis, *What Would Google Do?*; Fuchs, *Internet and Society*. Fuchs/Tapscott/Williams, "Wikinomics [Review];" Benkler, *The Wealth of Networks*; Lesig, *Code*. Cyber communism is reflected in: Barbrook, "The: Cyber.com/munist: Manifesto" (1999).

73 See for example: Reichert, *Amateure im Netz*; Lovink, *Zero Comments*; id., *My First Recession*; id., *Dark Fiber*; Barbrook/Cameron, "The Californian Ideology;" Barbrook, *Media Freedom*; Kroker/Weinstein, *Data Trash*.

the corresponding observations are rarely substantiated by reference to historical analyses. Whereas some recent publications trace back the internet ideals or utopias of freedom and global communality of the 1990s to the 1960s, this article might contribute to their genealogy and show that they are already deeply rooted in nineteenth-century discourses about 'new' communication technology like telegraphy.⁷⁴

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74 Barbrook, *Imaginary Futures*; Turner, *From Counterculture to Cyberculture*.

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»Global History«
Volume 15

Edited by Sebastian Conrad, Andreas Eckert and Ulrike Freitag

M. Michaela Hampf, Simone Müller-Pohl [eds.]

Global Communication Electric

Business, News and Politics in the World of Telegraphy

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Campus Verlag
Frankfurt/New York

Distribution throughout the world except Germany, Austria and Switzerland by

The University of Chicago Press
1427 East 60th Street
Chicago, IL 60637



Bibliographic Information published by the Deutsche Nationalbibliothek.
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie;
detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>
ISBN 978-3-593-39953-9

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Cover: »The Progress of the Century«, New York 1876 (Currier & Ives) © picture alliance /
akg-images
Typesetting: Fotosatz L. Huhn, Linsengericht
Printing office and bookbinder: Beltz Bad Langensalza GmbH
Printed on acid free paper.
Printed in Germany

This book is also available as an E-Book.

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

M. Michaela Hampf and Simone Müller-Pohl

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.