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ARTICLE

HISTORICIZING THE GLOBAL: AN INTERDISCIPLINARY PERSPECTIVE

Historicizing media, globalizing media research: infrastructures, publics, and everyday life*

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Abstract

Visions of media spanning the globe and connecting cultures have been around at least since the birth of telegraphy, yet they have always fallen short of realities. Nevertheless, with the internet, a global infrastructure has emerged which, together with mobile and smartphones, has rapidly changed the media landscape. This far-reaching digital connectedness makes it increasingly clear that the main implications of media lie in the extent to which they reach into everyday life. This article puts this reach into historical context, arguing that, in the pre-modern period, geographically extensive media networks only extended to a small elite. With the modern print revolution, media reach became both more extensive and more intensive. Yet it was only in the late nineteenth century that media infrastructures penetrated more widely into everyday life. Apart from a comparative historical perspective, several social science disciplines can be brought to bear in order to understand the ever more globalizing reach of media infrastructures into everyday life, including its limits. To date, the vast bulk of media research is still concentrated on North America and Europe. Recently, however, media research has begun to track broader theoretical debates in the social sciences, and imported debates about globalization from anthropology, sociology, political science, and international relations. These globalizing processes of the media research agenda have been shaped by both political developments and changes in media, including the Cold War, decolonization, the development of the internet and other new media technologies, and the rise of populist leaders.

Keywords: digital media; everyday life; internet; media infrastructures; media systems

Introduction

How can the increasing power and the global span of media be understood? On one side, it is only since the late nineteenth century that the technological infrastructures have existed whereby media – newspapers, radio, television, and more recently the internet – could reach mass audiences. On the other side, the main effect of these media infrastructures is their reach into people's everyday lives. These two sides come together in the creation of 'publics' or 'audiences'. What has so far been largely overlooked, however, is that there are in fact three types of 'publics' or 'audiences' which correspond to the classic tripartite division of power in society: publics for news and civic engagement (politics), audiences for consumption or advertising (economics), and audiences for entertainment and leisure (culture). Some historians and social thinkers would include military power as a fourth source of power, and media have been important in this domain.[1] Yet, while the

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[1]Michael Mann, *The sources of social power, volume I: a history of power from the beginning to 1760 AD*, Cambridge: Cambridge University Press, 1986; Daniel Headrick, *Power over peoples: technology, environments, and Western imperialism, 1400 to the present*, Princeton, NJ: Princeton University Press, 2010.

military uses of media have been important in the past, they can be bracketed for our purposes since they fall outside the scope of contemporary everyday media uses (except, of course, during times of war), although the origins of the internet are often associated with the military.[2]

The reason for beginning with the distinction between these three publics is to highlight that only the first of these – media as a means for news and political participation – has commonly been considered to be the main function of the media. This article will agree with this prioritization, though it will also argue that the economic and cultural functions must be elaborated simultaneously – if only to situate them alongside the political role of the media. The distinction between the three publics also makes it possible to highlight the boundedness of media, which is quite different for each of the three publics, as we shall see: as a straightforward initial example, we can take the current reach of an English-language newspaper or television news programme, which is quite different from, say, the reach of a Hollywood blockbuster movie. Media have been a globalizing force, but they have not brought about the 'death of distance' or the 'global village' that have often been heralded.[3] As Czitrom points out, the idea of a global village was first mooted in 1838, by Samuel Morse, a year after the introduction of the first telegraph.[4] Yet, almost two centuries later, the reach of media, is still bounded, in practice, by languages and regions.

This article will focus on the reach of media infrastructures among the three publics. It will begin by discussing how different academic disciplines have dealt with the questions of media, disciplinarity, and globalization. Then it will examine how media research has addressed global processes, arguing that this has been shaped by debates about globalization from other social science disciplines, by political developments such as the Cold War, decolonization, and the rise of populist leaders, and by the development of the internet and other new media technologies. Next, the article will develop a conceptualization of media infrastructures, which tie together what lies at the intersection between these topics. The development of media infrastructures has transformed how media reach different publics – in politics as citizens, and in everyday culture as consumers. Some illustrations will then be used to chart the changes in the reach of media in different periods, beginning with the Middle Ages and then fast-forwarding to the emergence of the first mass publics during the nineteenth century. The aim is to show that there are stepwise and uneven transformations in the extent to which media reach into everyday life. Finally, we will turn to the most recent era in the history of media, when digital media have become dominant. This era is often regarded as a period of radical rupture, rapidly accelerating the globalization of media and promoting democratization. Yet these ideas can be set in a longer-term perspective which shows greater continuities but also puts the age of mass print and broadcast media which dominated the twentieth century into its historical place. The article concludes by arguing that, while media are embedded ever more deeply in our lives, a historical view provides much-needed insights into the limits of their reach.

In order to gauge the reach of media, it is necessary to combine, above all, three concepts or perspectives from different disciplines. The first is the concept of 'large technological systems' or 'infrastructures', from the history of technology and the sociology of science and technology; these infrastructures constitute the carriers which make media available to large numbers of users. The second is the concept of 'media systems', from media and communication studies, which categorizes media by how they are shaped by national politics and economies but also how they have

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[2]But see Thomas Hughes, *Rescuing Prometheus*, New York: Pantheon Books, 1998, pp. 255–300, who argues that ARPANET, the precursor to the internet, was primarily developed for research purposes rather than to create a network that was resistant to military attack, as is often thought.

[3]Frances Cairncross, *The death of distance: how the communications revolution will change our lives*, London: Orion Business Books, 1997; Marshall McLuhan, *Understanding media: the extensions of man*, New York: McGraw Hill, 1964; Carolyn Marvin, *When old technologies were new: thinking about electric communication in the late nineteenth century*, New York: Oxford University Press, 1990.

[4]Daniel Czitrom, *Media and the American mind: from Morse to McLuhan*, Chapel Hill, NC: University of North Carolina Press, 1982, p. 11; see also Tom Standage, *The Victorian internet: the remarkable story of the telegraph and the nineteenth century's online pioneers*, London: Phoenix, 1988.

established autonomy from these. The third is a turn to forces from below, which, translated into the realm of media, entails focusing on audiences or how people 'domesticate' media in their everyday lives – in contrast with the large systems which enable them to do so and with the messages that elites promote via media.

Before embarking on the analysis, it is necessary briefly to elaborate the distinction already made between publics in terms of the political, economic, and cultural roles of the media. These do of course often overlap, but there is one feature which crucially sets the political uses of media apart from the other two: namely, that only the political uses of media are zero-sum in the sense that there is competition to dominate the attention of the public and so to set the agenda, with winners and losers. It is true that advertisers and entertainment also compete for attention, but it is difficult in these two cases to speak of zero-sum competition: after all, consumers can add more entertainment and advertising to their media diet, and there is no necessary loss when audiences choose to devote their attention to one type of entertainment content over another. The exception is loss of revenue, but there can also be an overall increase in revenue in media markets, and certainly an increase in the amount of media consumed (though it can be noted that, even in this regard, there is a limit: namely, the total amount of time that people spend with media). In the arena of politics, in contrast, a number of actors – politicians, parties, social movements, and politically relevant elites – seek legitimacy via media from within civil society, at least in modern democracies. They compete for this legitimacy, and the content that dominates has consequences for society. At a minimum therefore, on a functionalist perspective on media represented, for example, by Luhmann, this dominant political content is a means whereby society is able to steer itself via information and communication.[5] From a conflict perspective, on the other hand, there is a continual contest within the public arena for the most prominent or dominant ideas – again, a contest to dominate the attention space – about the direction of social development.[6] From either perspective, certain mediated content shapes the direction of politics and hence of societal development – though this does not, of course, exhaust how media shape social life.

One objection to this point could be that devoting attention to others and to information may also ultimately be zero-sum: people only have a limited amount of time to devote to media. But consider how people can be part of several digital networks, such as Facebook, Twitter, LinkedIn, and more. The network ties via these digital media are overlapping and multiple, but they are not zero-sum. Or we can think here of screen time: the fact that people now send messages to each other or watch videos in places they never used to before, such as in restaurants or on trains. Again, these are not zero-sum, though ultimately there may be limits. Now compare these with governments, where parties or leaders compete for media attention during elections and during periods of rule; at the margins, there may also be an overall increase in how they reach us via media, but, to dominate, this is a zero-sum game played out in a limited attention space.

Media, disciplines, and globalization

Media have been studied as part of a number of academic disciplines, but they have also gained their own academic specialism: media studies or communication research. Departments focusing on media first emerged during the middle of the last century, mainly in response to the use of radio, film, and television for propaganda purposes.[7] But other disciplines have also analysed media: historians of media, for example, often focused on the main media institutions, though,

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[5]Niklas Luhmann, *The reality of the mass media*, Cambridge: Polity Press, 2000.

[6]Russell W. Neuman, *The digital difference: media technology and the theory of communication effects*, Cambridge, MA: Harvard University Press, 2016.

[7]*Ibid.*, p. 18.

121 as in other areas of history, there has been a gradual shift to popular culture and everyday life.[8]
122 Indeed, Drayton and Motadel have argued that 'history from below', plus decolonization, were the
123 two main impulses for the emergence of global history, and this turn to everyday popular uses has
124 also characterized media research.[9] Anthropology added to this 'from below' or everyday-life
125 perspective in the 1980s and '90s with a focus on audiences in different contexts, and also helped
126 to globalize research on media. Political science is the other major discipline, though in this case
127 the study of media has remained isolated within the subdiscipline of political communication. The
128 contribution of the sociology of science and technology is quite recent, and has mainly concen-
129 trated on digital technologies. Yet, outside the sociology of science and technology, general
130 sociology and mass communication research have developed independently and without much
131 overlap, though this is changing with digital technologies.[10] Nevertheless, even though several
132 disciplines have media in their purview, there is little dialogue between them. Furthermore,
133 outside the discipline of history, historically informed analyses of media are rare, despite the fact
134 that traditional broadcast and print (or pre-internet) media still constitute the vast bulk of media
135 uses around the globe.
136   As far as the geographical scope of the study of media is concerned, as already mentioned,
137 anthropology was highly influential in shifting media research beyond a Western-centric perspec-
138 tive. The point was to move away from seeing the effects of media as homogenizing, even in the
139 case of television programmes that reached a global audience. The iconic example was the 1980s
140 soap opera *Dallas*.[11] Yet, despite attempts to de-Westernize studies of the media, the vast bulk of
141 media research is still concentrated on North America and Europe. Ginsberg, Abu-Lughod, and
142 Larkin point out that 'the dominant frameworks for thinking about media's transnational reach
143 have been either globalization or imperialism, which tend to privilege media from or dominant in
144 the West'.[12] With digital media, this is slowly changing and there are, for example, detailed
145 ethnographic accounts of how social media are used in various contexts around the world which
146 step outside the framework of a homogenizing globalization or of imperialism.[13] What these
147 ethnographic studies lack, however, are means whereby comparisons can be made, both between
148 the countries in which these local ethnographies are set, and also between longer-term historical
149 trajectories that have shaped media development.
150   Research about the reach of media has in the past tended to be national or related to events such
151 as elections, or has only covered the time-span of certain types of media such as print or broadcast
152 or the internet. Comparisons across different periods and parts of the world, which is the strength
153 of comparative historical methods, could provide a much needed wider horizon.[14] Such methods
154 will increasingly come onto the research agenda with digital media, which are less nationally
155 bounded, though again, how they reach beyond national boundaries has been much exaggerated.
156 These long-term trajectories are particularly important if we consider how infrastructures have
157 shaped media development. A brief indication of this can be given by reference to the contrast
158 between the two Eastern rising giants, India and China. In these two countries, how the technol-
159 ogy of media infrastructures has shaped everyday life reveals enormous differences: China has
160 pursued infrastructure projects on a large scale throughout its recorded history, whereas India

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[8]Asa Briggs and Peter Burke, *A social history of the media: from Gutenberg to the internet*, Cambridge: Polity Press, 2002.
[9]Richard Drayton and David Motadel, 'Discussion: the futures of global history', *Journal of Global History*, 13, 2018, pp. 1–21.
[10]Jefferson Pooley and Elihu Katz, 'Further notes on why American sociology abandoned mass communication research', *Journal of Communication*, 58, 4, 2008, pp. 767–86.
[11]Ien Ang, *Watching Dallas: soap opera and the melodramatic imagination*, London: Methuen, 1985.
[12]Faye Ginsburg, Lila Abu-Lughod, and Brian Larkin, 'Introduction', in Faye Ginsburg, Lila Abu-Lughod, and Brian Larkin, eds., *Media worlds: anthropology on new terrain*, Berkeley, CA: University of California Press, 2002, p. 14.
[13]Daniel Miller *et al.*, *How the world changed social media*, London: UCL Press, 2016.
[14]Matthew Lange, *Comparative-historical methods*, London: Sage, 2018.

161 has always made do with 'small technology'.[15] These two traditions have left a lasting legacy on
162 contemporary infrastructures. In India, even today, the mobile phone infrastructure has remained
163 quite weak, despite the rapid adoption of mobile phones.[16] In China, in contrast, the government
164 is spearheading the promotion of mobile and smartphone technology as part of an
165 all-encompassing policy that fosters infrastructure building to accelerate social development.
166 These two infrastructure trajectories will continue to shape the penetration of media into everyday
167 life for decades to come.
168 These implications of media infrastructures can also be spelled out more narrowly for politics.
169 The contrast that stands out most strongly in global comparisons in this case is China's authori-
170 tarian control over its media as compared with democracies where media have gained autonomy
171 from state control. To understand how this autonomy emerged, or failed to do so, it is useful to
172 draw on the media systems theory of Hallin and Mancini. These two authors have developed the
173 most elaborate comparative historical model of how media systems developed in Western democ-
174 racies in the course of the twentieth century, and they distinguish between three regional types: the
175 liberal (or north Atlantic) model, dominated by the private sector; the democratic corporatist
176 model (in north and central Europe), with a mix of public service and private sector media;
177 and the polarized pluralist model (in Mediterranean countries), where the state intervenes
178 strongly in media.[17] This model has since been extended to other media systems around the world,
179 which reveals considerable variation beyond Hallin and Mancini's tripartite model, particularly in
180 terms of lack of the autonomy of media under many political regimes.[18]
181 Hallin and Mancini acknowledge that the distinctiveness of their model has been eroded
182 somewhat in recent decades: on the one hand by technological forces such as satellite television
183 and the internet, and on the other by the increasing dominance of market forces. This growing
184 commercialization holds even for media in China, the biggest single media system outside the
185 West.[19] Thus instead of global convergence, again, there is both a persistence of national and
186 regional variation against the background that this variation is being reconfigured by the spread
187 of market forces and by technological changes. Digital media, rather than broadcast and print, are
188 now spearheading the transnationalization of media infrastructures. At the same time, it should
189 not be forgotten that some countries, like North Korea with its centralized media controls, and
190 other areas of the world, like certain parts of sub-Saharan Africa, are still largely outside the reach
191 of any openly available media infrastructures that are accessible to the bulk of the population.
192 Digital media add a further layer to existing media infrastructures with the internet and mobile
193 phones, yet this layer represents an extension and deepening of media in everyday life rather than
194 a departure, reshaping its geographical reach but not erasing political and other boundaries. And
195 even with digital media, Norris and Inglehart, for example, found that, despite denser media
196 connections, there are 'firewalls' which entail the result that cultural values are only partially
197 converging and national cultures persist.[20] Apart from politics and news, this point has also been
198 documented for digital content generally. For example, the websites that are accessed around the

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[15]Paul Josephson, *Resources under regimes: technology, environment, and the state*, Cambridge, MA: Harvard University Press, 2004. David Arnold, *Everyday technology: machines and the making of India's modernity*, Chicago, IL: University of Chicago Press, 2013.

[16]Assa Doron and Robin Jeffrey, *The great Indian phone book: how the cheap cell phone changes business, politics, and daily life*, Cambridge, MA: Harvard University Press, 2013.

[17]Daniel Hallin and Paolo Mancini, *Comparing media systems: three models of media and politics*, Cambridge: Cambridge University Press, 2004.

[18]Daniel Hallin and Paolo Mancini, eds., *Comparing media systems beyond the Western world*, Cambridge: Cambridge University Press, 2012.

[19]Daniela Stockmann, *Media commercialization and authoritarian rule in China*, Cambridge: Cambridge University Press, 2013.

[20]Pippa Norris and Roland Inglehart, *Cosmopolitan communication: cultural diversity in a globalized world*, Cambridge: Cambridge University Press, 2009.

199 world have formed persistent regional and linguistic clusters of websites that dominate the attention
200 of users.[21] In other words, although websites are in principle (apart from censorship) accessible from
201 around the world, in practice, audiences still largely access content that fits with their linguistic
202 preferences and with regional and national boundaries. Furthermore, this pattern holds just as
203 much for Anglo-American or English-speaking audiences as it does, say, for Chinese-language audi-
204 ences or audiences from the Chinese mainland and in other parts of the world. The main shift in
205 regard to the geographies of the most popular websites is a slow migration towards more content
206 from parts of the Global South and outside the hegemony of the English language.

207   It is worth dwelling for a moment on the data source for the study of the geography of web
208 content (by Wu and Taneja) that has just been discussed: the way that these authors identify the
209 most important clusters of attention among the websites that people visit is by drawing on large
210 representative samples of users of websites from around the world whose clicks on particular web-
211 sites are recorded. This cutting-edge method, known as webtracking, provides a comprehensive
212 picture of what people read and view online: it can be likened to a global macroscope which shows
213 what online content people are interested in at a large scale and in great detail. In the future,
214 techniques like these will play a major role in our historical understanding of what people are
215 interested in.[22] This source can be compared to sources of media uses in earlier periods: how much
216 is known, for example, about the reading habits of people in medieval Europe or China? There are
217 some sources for the extent to which printed materials were available in everyday life, and the kind
218 of content that people were interested in, as we shall see in a moment. These records have
219 improved over the course of time. But it is safe to say that future historians will have an abundance
220 of data both to undertake fine-grained analyses of particular aspects of people's media habits and
221 to engage in new ways with global or 'big history'.[23]

Historicizing the global in media research

223 Research on media has taken an ever more global purview during the post-war period, but there
224 has not been a consolidated global 'turn' as with, say, the emergence of 'global history' as a field of
225 study. To trace the globalizing process of the media research agenda, the post-war period can be
226 divided crudely, first, into the era dominated by decolonization and the Cold War, when criticism
227 of media imperialism was prominent, as was the antagonism between a world of free media and
228 one in which there was tight control over censored media. This was followed by a post-Cold War
229 interlude, when the internet in particular became an agent of democratization and research
230 increasingly turned to information and communication technologies as a tool for promoting
231 economic development in the Global South. More recently still, attention has focused on a rising
232 China, where there are still traces of the Cold War with the concentration on how the media are
233 censored. But the most important shake-up in media research, as we shall see, is very recent and
234 still ongoing, and can be dated to the Brexit referendum and the election of Donald Trump as
235 president in the United States. This double shock in 2016 has surfaced longer-standing concerns
236 with how social media spread disinformation and contribute to the corrosion of democracy.[24]
237 Some have gone so far as to label this a 'post-truth' era, a term popularized by journalists but
238 with already more than a dozen books published that have 'post-truth' in the title.[25] 'Post-truth'

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[21]Angela Xiao Wu and Harsh Taneja. 'Reimagining internet geographies: a user-centric ethnological mapping of the world wide web', *Journal of Computer-Mediated Communication*, 21, 3, 2016, pp. 230–46.

[22]See, for example, the contributions in Niels Brügger and Ralph Schroeder, eds., *The web as history: using web archives to understand the past and the present*, London: UCL Press, 2017.

[23]Jo Guldi and David Armitage, *The history manifesto*, Cambridge: Cambridge University Press, 2014.

[24]Yascha Mounk, *The people vs. democracy: why our freedom is in danger and how to save it*, Cambridge, MA: Harvard University Press, esp. pp. 137–50.

[25]Katherine Viner, 'How technology disrupted the truth', *The Guardian*, 12 July 2016, https://www.theguardian.com/media/2016/jul/12/how-technology-disrupted-the-truth (consulted 11 December 2018).

239 is a problematic term, as we shall see, but it crucially revolves around attempts by some countries,
240 and Russia above all, to influence the politics in another. The long arm of the Cold War may be
241 with us still.
242   The idea of 'media imperialism' was prominent during the phase of post-war decolonization
243 and reached its culmination in the idea of a 'New World Information Order' during the mid 1970s
244 in the work of UNESCO.[26] This work influenced media scholarship into the 1980s and drew
245 attention to how the domination of large-scale corporations, mostly based in the United
246 States, excluded much of what has since come to be known as the Global South. During the
247 1980s, the era of Reagan and Thatcher, these ideas slowly gave way to the concept of 'neoliberal-
248 ism'. While this concept has mainly been deployed in conjunction with the political economy of
249 Anglo-American capitalism,[27] it has also been used by scholars of the non-Western world to
250 indicate the imposition of globalizing capitalist economy increasingly unconstrained by the
251 regulation of states. In relation to media, the result is a shift whereby media systems have moved
252 away from public service broadcasting and been subject to the ever greater unbridled competitive
253 pressures of capitalist media corporations. A number of contributions to the Hallin and Mancini
254 volume discussed earlier, which takes their 'media systems' approach beyond the context of
255 Western democracies, have charted this imposition of neoliberalism in swathes of the Global
256 South and beyond, even if different media systems persist.[28] Others have discussed a similar shift,
257 but have used the term 'postcolonial' to account for the move away from a 'modernist' and
258 paternalist broadcast model, in order to highlight how local or indigenous voices 'from below'
259 militate against a Western modernizing project.[29] Along these lines, Athique argues in a postco-
260 lonial vein that, in post-independence India, 'the old, bourgeois culture of the neo-colonial class,
261 and its autocratic socialism, has been supplanted by a more emotive, populist and middlebrow
262 culture'.[30] This move away from the paternalism of Indian public broadcasting has steadily
263 strengthened since the 1990s.
264   Media research about India has moved higher up on the agenda of media research during the
265 post-Cold War period, along with research about Chinese media, reflecting the two countries'
266 growing economic prowess.[31] But scholarship on Chinese media has far outstripped research
267 about India, and the vast bulk of scholarship on this topic continues to focus, even after the
268 end of the Cold War and especially in the United States, on internet censorship.[32] The preoccu-
269 pation with censorship and the 'Great Firewall' is too simple, however. As a number of scholars
270 have pointed out, digital media, in contrast with traditional media (which can be more tightly
271 controlled), constitute a lively domain where there are in fact 'multiple public spheres', some
272 of them concerned with discussion of censorship itself.[33] Moreover, among the strongest online
273 publics are those that support the government, to the point where a major issue is how to prevent
274 this support from curtailing the regime's freedom of manoeuvre.[34]

[26]UNESCO, 'Unesco declaration on mass media', *Political Communication*, 1, 4, 2010, pp. 391–7 (originally published 22 November 1978).

[27]Mark Blyth, *Great transformations: economic ideas and institutional change in the twentieth century*, Cambridge: Cambridge University Press, 2002.

[28]Hallin and Mancini, *Comparing media systems beyond the Western world*.

[29]Paula Chakravarty, 'Telecom, national development and the Indian State: a postcolonial critique', *Media, Culture and Society*, 26, 2, 2004, pp. 227–49.

[30]Adrian Athique, *Indian media*, Cambridge: Polity Press, 2012, p. 146.

[31]Pranab Bardhan, *Awakening giants, feet of clay: assessing the economic rise of India and China*, Princeton, NJ: Princeton University Press, 2012.

[32]Most recently, Margaret Roberts, *Censored: distraction and diversion inside China's great firewall*, Princeton, NJ: Princeton University Press, 2018.

[33]Adrian Rauchfleisch and Mike Schäfer, 'Multiple public spheres of Weibo: a typology of forms and potentials of online public spheres in China', *Information, Communication & Society*, 18, 2, 2015, pp. 139–55.

[34]Rongbin Han, *Contesting cyberspace in china: online expression and authoritarian resilience*, New York: Columbia University Press, 2018.

275   Another area of research that is still shaped by the preoccupations of the Cold War relates to
276 how the great powers project their power via media, which has come to be known as 'soft power'.[35]
277 This type of research is mainly carried out under the aegis of political scientists and within the
278 discipline of international relations, but it has also partly moved on: while during and shortly after
279 the Cold War, it was mainly about the projection of American power, lately the focus has been on
280 the threat of a rising China.[36] China is seen as a major new force that counterbalances the hege-
281 mony of Western media, and this has become a major new trope in media research. Interestingly,
282 the main thrust, in terms of the resources involved that are devoted to media, has gone to the
283 traditional medium of television, especially setting up foreign-language arms of the public broad-
284 caster China Central Television (CCTV). As this effort is driven by the state, it can be seen both as
285 representing the persistence of different media systems and also as a result of the reconfiguration
286 of the balance among the post-Cold War great powers. This reconfiguration is shaping not just
287 news but also the entertainment industry: as Kokas has shown, whereas once the media imperi-
288 alism thesis was applied to the worldwide dominance of Hollywood films, the Chinese film indus-
289 try has found ways to keep the popularity of Hollywood films within limits while at the same time
290 boosting collaborative projects that strengthen its own film industry, which thereby also keep rev-
291 enue mainly within China.[37]

292   There has been much more research on Chinese media than about India, with Doron and
293 Jeffrey's book about Indian mobile phone usage still representing the only study (that the author
294 is aware of) that has integrated micro- and macro-perspectives or the local and the global.[38] It is a
295 collaboration between a media historian and an anthropologist and also draws on science and
296 technology studies. Thus the book embeds mobile phones in the longer and deeper context of
297 the history of Indian media, and the press in particular. But it also borrows from science and
298 technology studies to trace the trajectory of the development of India's technological infrastruc-
299 ture, which continues to shape mobile phone uses. At the same time, the study contextualizes
300 everyday uses within various settings which often combine local and global forces. For example,
301 the authors describe the early dominance of the Finnish mobile phone maker Nokia and how the
302 company adapted to local ways of selling and repairing phones. The rich ethnographic tracking of
303 mobile phones from the point of sale into everyday uses counters simplistic narratives whereby
304 globalizing forces sweep all before them. Yet the authors also remain attuned to the changes that
305 mobiles have brought to India, as in their careful conclusion that 'the cell phone drew India's
306 people into relations with the record-keeping capitalist state more comprehensively than any pre-
307 vious mechanism or technology'.[39] They can only arrive at this point, however, after cataloguing
308 how these relations have emerged from the ground up, with people purchasing phones, registering
309 their phone numbers, and using them in daily transactions.

310   The book thus overcomes the impasse which other studies in single disciplines have yet to
311 manage successfully: it provides a longer view that reaches into India's precolonial past and
312 yet embeds the contemporary uses of new technologies in local contexts. In doing this, Doron
313 and Jeffrey also avoid the simplistic picture in parts of the ICT4D (information and communica-
314 tion technologies for development) discourse that is also widespread among the public, and
315 whereby mobile phones are seen as a source of economic and social development, a discourse
316 which is still fuelled by the notion of a rising Asia.[40] This optimistic discourse has persisted
317 throughout the post-Cold War period of the internet's rise and the recent surge of mobile phone
318 adoption. Yet one element that is missing in Doron and Jeffrey's study is the reach of media, via

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[35]Joseph S. Nye Jr, 'Soft power', in *Power in the global information age: from realism to globalization*, London: Routledge, 2004, pp. 76–88.

[36]David Shambaugh, *China goes global: the partial power*, New York: Oxford University Press, 2013, pp. 207–68.

[37]Aynne Kokas, *Hollywood made in China*, Berkeley, CA: University of California Press, 2017.

[38]Doron and Jeffrey, *Great Indian phone book*.

[39]*Ibid*., p. 224.

[40]Jonathan Donner, *After access: inclusion, development, and a more mobile internet*, Cambridge MA: MIT Press, 2015.

infrastructures and in everyday lives, in terms of the content that is accessed and spread via social media. A single example is the mobile phone market in India, which was initially dominated by Western handset makers and telecoms providers and is now dominated by Chinese handset makers and Indian service providers. At the same time, American companies such as Google and Facebook (owners of WhatsApp) are still dominant in the search engine market and for social media in India. Infrastructures thus remain critical for how digital media go beyond traditional media, which perhaps extends the period of 'media imperialism', and this is a topic to which we will turn in the next section.

Returning to the larger picture, however, during the post-Cold War interlude, the optimistic discourse of democratization and the internet reached a high point with Bill Clinton's comment on 8 March 2000, when he said that China's efforts to control the internet were like 'nailing Jell-O to the wall'.[41] Yet, in the twenty-first century, the combination of the Brexit referendum and the election of president of Donald Trump in 2016 has marked the most important caesura, with the pendulum swinging rapidly from optimism to pessimism. Media research has not yet fully come to terms with the fallout from these two events, though it is clear that it has already shifted to address concerns with disinformation or misinformation, especially from foreign actors. While the debates have yet to settle, the very notion of what constitutes media, and whether to include non-traditional ways of disseminating news and information outside broadcast and print to include, say, sharing blog posts or online-only partisan websites such as Breitbart in the United States – not to speak of malicious or misleading social media posts – will be discussed for many years to come. This also makes the notions of disinformation and misinformation problematic: should channels outside professional journalism, lacking its norms and autonomy, be counted as news media?

While the answer to this question still eludes scholars in a shifting media environment, Brexit and Trump are also responsible for a second major shift, which concerns whether there is a unique media 'style' associated with populist leaders, parties, and their supporters. Moffitt, who has studied how populist leaders use media to address 'the people' in a direct and personalistic way and through employing the 'common man's' language, notes that this 'populist style' of communication is being copied transnationally.[42] This burgeoning research area includes work on the transnational connections between, for example, far right movements and parties, a topic of much current concern, though there is as yet little evidence for these connections on such platforms as Twitter, apart from among a small core of supporters of an anti-immigrant and nativist agenda.[43] A larger debate is also emerging between those who would hold the media responsible for Brexit/Trump and related phenomena around the world, and those who see these phenomena as part of a longer-term economic downturn since the financial crisis of 2008. Yet this debate is far from settled and will require greater historical distance.

It is worth mentioning another recent major historical shift that is changing the global scope of research and that arises from new media technologies and their infrastructures themselves – a shift whereby these infrastructures have made more transnational collection of data possible. The data that comes from the users of new media infrastructures such as Twitter and Facebook and Google, for example, is no longer bounded by national contexts, as was much of the research that took place in the broadcast and print era. Instead, it is bounded by the reach of the infrastructure (or 'platform') combined with its dominance among certain transnational groups of users, with all the advantages and disadvantages that come with these features. We can think here of the

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[41]'Clinton's words on China: trade is the smart thing', *New York Times*, 9 March 2000, https://www.nytimes.com/2000/03/09/world/clinton-s-words-on-china-trade-is-the-smart-thing.html (consulted 22 February 2019).

[42]Benjamin Moffitt, *The global rise of populism: performance, political style, and representation*, Stanford, CA: Stanford University Press, 2017. See also Ralph Schroeder, *Social theory after the internet: media, technology, and globalization*, London: UCL Press, 2018, pp. 60–81.

[43]Caterina Froio and Bharath Ganesh, 'The transnationalisation of far right discourse on Twitter', *European Societies*, 2018, pp. 1–27.

abundance of photographs that will be available to historians, via Facebook and other social media.[44] This source will be invaluable, as photographs have previously been, in areas such as the study of changing patterns of consumption. Take, for example, Collins' study of the growing informalization of clothing styles over the course of the twentieth century, painstakingly pieced together by collecting thousands of photographs.[45] In the future, this type of research can be done using the ready-made and accessible sources of Facebook, Instagram, and other infrastructures, though with new limitations, apart from obvious privacy concerns.

These new opportunities bring other new challenges, above all, again, that media users cannot be assumed to be national populations, as was the case during the broadcast and print era. Again, one example will suffice: Thelwall examined trending topics on Twitter within English-speaking countries, including India and Hong Kong in addition to Canada, the US, and the UK.[46] There are advantages to this novel approach, which allows cross-national patterns to emerge, for example in the attention paid to common or less common holidays such as Thanksgiving and Diwali (giving an albeit imperfect indication, among other things, of the size of transnational diasporas), but also to trending news topics like the death of Osama Bin Laden. Analysing these patterns will allow historians to gauge people's interests over time. At the same time, English speakers are not necessarily representative of the countries being studied, and nor, of course, are Twitter users.

Despite these limitations, the significance of such new research agendas is bound to grow, with all that they offer by means of data from globe-spanning infrastructures. We are thus entering an era in which access to data from these infrastructures is shaping research. But historical forces will, in turn, shape this access, especially in view of growing privacy concerns, concerns about disinformation, and concerns about how tracking people's online habits can be used to manipulate their political choices. Academics will rely to an ever greater extent on data from commercial digital media companies such as Facebook and Google for their research materials. This is a novel and still ill-understood phenomenon, but it is novel mainly because of these new infrastructures rather than because of an increasing commercialization of research: as Porter has pointed out, the relation between academic social science research and the commercial sector has waxed and waned since the 1930s.[47]

What can we preliminarily conclude from this broad historical survey of how media research has addressed global processes? The obvious point is that the geographical focus and conceptualization of changing power balances reflect the periods in which the research was carried out. Beyond this point, it can be stressed again (as was done in the previous section) that discussion of the 'global' in media research has not developed a separate conceptual toolkit but has borrowed concepts from other social science disciplines. Media research has tracked broader theoretical debates in the social sciences and imported debates about globalization from anthropology, sociology, political science, and international relations. It is in this force field of historical changes and power shifts, of new technologies influencing research, and of concepts and theories that span across disciplines that media research has developed its apparatus for coming to terms with the global.

Media infrastructures

Against this background, it is possible to chart how media infrastructures have grown over time. One of the reasons why it is important to focus on infrastructures is that this concept captures publics *across all media*, both digital and non-digital. Unless infrastructures encompass both

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[44]Daniel Miller and Jolynna Sinanan, *Visualizing Facebook*, London: UCL Press, 2017.

[45]Randall Collins, 'Four theories of informalization and how to test them', *Human Figurations*, 3, 2, 2014, http://hdl.handle.net/2027/spo.11217607.0003.207.

[46]David Wilkinson and Mike Thelwall, 'Trending Twitter topics in English: an international comparison', *Journal of the American Society for Information Science and Technology*, 63, 8, 2012, pp. 1631–46.

[47]Theodore Porter, 'Statistics and statistical methods', in Theodore Porter and Dorothy Ross, eds., *The modern social sciences*, Cambridge: Cambridge University Press. 2008, pp. 238–50.

digital and non-digital media, it is difficult to gauge the role of media for different publics in everyday life in different parts of the world, especially since print and broadcast media still dominate large swathes of the globe. It is therefore essential to encompass all media in a single sweep so as not to exaggerate the shock of the new on the one hand, while on the other hand acknowledging that a displacement towards ever more digital media is taking place. This is particularly true in the political realm, where digital media have enabled elites to set the agenda more powerfully and capture the inputs from civil society more capaciously. It is obviously also true of how digital infrastructures have affected everyday personal connections and patterns of entertainment.

The media infrastructures of telephones, radio, and television emerged in the late nineteenth century and became solidified during the middle of the twentieth century in high-income countries. This process has been well documented for countries such as the United States and Sweden.[48] But in China and India, too, according to Duara and Perry, 'indigenous modernizing groups' were active in creating a new urban public sphere in the late nineteenth and early twentieth centuries.[49] As has already been mentioned, the paths of infrastructure development have often diverged. An obvious contrast is between a system with public broadcasting, as in Sweden, and one with little or none, like the United States. One reason why the role of infrastructures is currently once again moving into the foreground is that countries like India, which is in the process of extending the reach of mobile telephony to the whole of its populations, face great challenges in a vast territory where infrastructures were in the past only weakly developed.[50] Another reason that this is important is that, although for some theorists such as Castells, media concentration leads to infrastructures of companies like Google, Facebook, and Amazon and others becoming globally dominant, there are also limits to this dominance.[51] To give just one example, in China, the equivalents of these three American companies – Baidu, Alibaba, and Tencent – are dominant.

A different way to highlight the value of the infrastructures and media systems approach taken here is to contrast it with a different perspective. Recently there has been much discussion that revives the idea of Eurasian linkages via the re-emergence of 'silk roads', renewing economic and geopolitical ties with deep historical roots.[52] But in terms of media as opposed to trade and military and diplomatic relations, China's aims are not so much to develop these linkages but rather to project the country's political and cultural strength beyond its borders by using its national media infrastructures to carry its messages to the world at large, as widely as it can reach.[53] Again, this is not so much a matter of reviving or building connections as it is of boosting the status of China globally, via media.

The prototypical emergence of infrastructures or large technological systems was charted for the case of electricity, but studies of other systems such as transportation and communication soon followed.[54] For media infrastructures, an additional complexity is that, while the various infrastructures of print, radio, and television were largely separate and divided between the public

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[48]For the telephone in the US, see Claude Fischer, *America calling: a social history of the telephone to 1940*, Berkeley, CA: University of California Press, 1992. For Sweden, see Arne Kajser, *I fädrens spår: den svenska infrastrukturens historiska utveckling och framtida utmaningar (In our fathers' tracks: the historical development of the Swedish infrastructure and future challenges)*, Stockholm: Carlssons, 1994. For comparisons between Sweden and the United States, see Ralph Schroeder, *Rethinking science, technology, and social change*, Stanford, CA: Stanford University Press, 2007, pp. 44–59.

[49]Prasenjit Duara and Elizabeth Perry, 'Beyond regimes: an introduction', in Prasenjit Duara and Elizabeth Perry, eds., *Beyond regimes: China and India compared*, Cambridge, MA: Harvard University Press, 2018, p. 5.

[50]Doron and Jeffrey, *Great Indian phone book*.

[51]Manuel Castells, *Communication power*, Oxford: Oxford University Press, 2009.

[52]Peter Frankopan, *The silk roads: a new history of the world*, London: Bloomsbury, 2015; Peter Frankopan, *The new silk roads: the present and future of the world*, London: Bloomsbury, 2018.

[53]Shambaugh, *China goes global*, pp. 207–68; Daya Kishan Thussu, Hugo De Burgh, and Anbin Shi, eds., *China's media go global*, Abingdon: Routledge, 2018.

[54]Thomas P. Hughes, *Networks of power: electrification in Western society, 1880–1930*, Baltimore, MD: Johns Hopkins University Press, 1983; Thomas P. Hughes, 'The evolution of large technological systems,' in Wiebe Bijker, Thomas Hughes, and Trevor Pinch, eds., *The social construction of technological systems*, Cambridge, MA: MIT Press, 1987, pp. 51–82.

441 and private sectors, digital media, although they are similarly multi-layered, rely on an underlying
442 infrastructure – the internet as well as wireless networks – that is shared. These infrastructures also
443 have elements that are proprietary, as well as elements governed by public regulation, such as
444 provisions for the common carriage of messages or data. This multi-layered media infrastructure,
445 partly converging and partly remaining separate, is still in the process of transformation, but
446 examining publics across media is essential if we are to assess how digital media are becoming
447 more prominent and reaching most of the world but still only penetrating everyday life alongside
448 traditional media.
449   The terminology of these large technological systems is worth dwelling on for a moment since
450 'infrastructures' could be limited to systems that are public or state-funded. Moreover, recently the
451 term 'platforms' has come into use for digital media. Yet all of these are 'large technological systems',
452 which includes systems that are public, private, or a mix of the two. Unlike print, however, other
453 modern media are always large-scale and complex socio-technical systems. The mass use of such
454 single interconnected systems for media only came into being during the nineteenth century. Since
455 then, layers have been added to these systems, and their reach has become more extensive and deep-
456 ened. At the same time, they have become 'invisible', like other routine aspects of social life, and only
457 become visible when there are breakdowns in the system or if there are controversies over how they
458 should be governed or how new technologies should be integrated into everyday life.[55]
459   One example of such breakdowns is that it was mistakenly expected that there would be a mas-
460 sive failure of digital networks during the transition to the new millennium because the software
461 could not cope with the calendar change, the so-called 'Millennium Bug'. The spectre of this fail-
462 ure highlighted what could happen if the infrastructure were to break down. Another example of
463 how infrastructures are made visible by controversies is the currently ongoing 'net neutrality'
464 debate, which concerns whether all data traffic over the internet should be treated equally or
465 if different charges could be applied to different types of data. Yet another example of such con-
466 troversies and where new technologies have not yet been 'domesticated' concerns the alleged ill
467 effects of media, as with debates about 'addiction' to digital devices.[56] Yet such controversies are
468 not new: there was extensive discussion over the excessive use of telephones among American
469 teenagers in the 1950s. These debates are echoed in current ones about the effects of social media
470 everywhere (it seems that teenagers are a common target of these moral panics). Debates about the
471 time spent with media are another perennial concern.[57] Otherwise, and once the habits around
472 new technologies have settled, these systems or infrastructures will, like transport or electricity,
473 become routine and invisible.

Pre-modern and modern media

475 This backdrop allows us to turn to the question of how media infrastructures were different in
476 terms of their reach into everyday life during earlier periods. We can get a brief glimpse of
477 pre-modern media from two classic accounts of everyday life in the Middle Ages. The first is
478 Emmanuel Le Roy Ladurie's *Montaillou*, set in the fourteenth century in what is today south-
479 western France. In Montaillou, he says, the nobleman was 'one of the few people in the village
480 who was more or less educated, one of the rare owners of books'.[58] Le Roy Ladurie describes
481 the villagers as living in an '"island time"', knowing little about the past.[59] In spatial terms, it
482 is likely that only one villager had been as far as the Paris region, so they lived in spatial isolation

[55]Rich Ling, *Taken for grantedness: the embedding of mobile communication into society*, Cambridge, MA: MIT Press, 2012.
[56]Roger Silverstone and Eric Hirsch, eds., *Consuming technologies: media and information in domestic spaces*, London: Routledge, 1992.
[57]Judy Wajcman, *Pressed for time: the acceleration of life in digital capitalism*, Chicago, IL: University of Chicago Press, 2015.
[58]Emmanuel Le Roy Ladurie, *Montaillou: Cathars and Catholics in a French village 1294–1324*, New York: Vintage Books, 2013, p. 58.
[59]*Ibid*., p. 282.

483 too, their social horizon bounded by the region.[60] Le Roy Ladurie chose Montaillou partly because
484 it could be seen as emblematic of rural society at the time. Yet it was also close to some of the
485 political and urban centres in Europe at the time, Burgundy and Paris.

486 *Montaillou* is a description of everyday life for a period for which we have another account on
487 the other side of the globe, Jacques Gernet's Hangchow (Hangzhou) in thirteenth-century
488 north-eastern China, which was at the time 'the largest and richest city in the world'.[61] The advent
489 of print in Hangchow meant that literary entertainment went beyond the upper strata, although,
490 'even when written', it was 'intended to be heard rather than read'.[62] Even in this case, the reach of
491 written media was limited to a small urban stratum. Meanwhile, in the surrounding poor
492 countryside at this time, the influence of the written word was mainly, as in medieval Europe,
493 for administrative purposes, and above all for taxation.[63]

494 Note that both Montaillou and Hangchow are examples of the role of 'media' (the written
495 word) in everyday life. There were, of course, extensive communication networks during this
496 period among an elite educated stratum which were centred especially on religious institutions,
497 foremost among them the Catholic Church in Europe and Buddhist monasteries in China, in both
498 cases tied together via regular long-distance organizational links facilitated by written media.[64] Yet
499 these uses of media were for elite purposes, especially in the role of communication for under-
500 pinning religious and political authority and long-distance trade, rather than everyday media uses
501 among a broader population.

502 There is much more that could be said about the role of the media in medieval society before we
503 move closer to the present. The point here has simply been to provide concrete evidence for the
504 argument that there was a period which was definitely pre-modern in the sense that, in everyday
505 life, and in two locales from two quite different parts of the world, the reach of media was severely
506 restricted in everyday life. Media did not, unlike in the modern period, expand the temporal and
507 spatial horizons of anyone but a very small elite, and there was a decisive break with this situation
508 in later periods.

509 Before the infrastructural transformations of nineteenth century, it was mainly elites who were
510 tied together by transnational media, and mainly for the purpose of exchanging scientific and
511 practical knowledge, for promoting political ideologies, and for long-distance economic activity.[65]
512 One of the roles of media, or of the printed word, was, of course, gradually to create a shared
513 symbolic universe among a broader population within a politically bounded territory: the
514 nation-state. This is not the place to revisit the extensive debate about the print revolution or about
515 the role of media for the emergence of nationalism in the theories of Anderson and Gellner.[66]
516 What is noteworthy in the context of discussing media is that Anderson's ideas have been
517 frequently used in media and communication research to refer, not to the role of print in the
518 emergence of nationalism, but rather to the transnational 'communities' created by broadcast
519 (and more recently digital) media.[67] Yet, while such transnational communities that are sustained
520 by media undoubtedly exist, it is important not to exaggerate their significance; they are limited to

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[60]*Ibid.*, p. 287.

[61]Jacques Gernet, *Daily life in China on the eve of the Mongol invasion, 1250–1276*, Stanford, CA: Stanford University Press, 1970, p. 14.

[62]*Ibid.*, p. 241.

[63]*Ibid.*, pp. 106–7.

[64]Randall Collins, *Weberian sociological theory*, Cambridge: Cambridge University Press, 1986, pp. 45–76.

[65]Ian Inkster, *Science and technology in history: an approach to historical development*, Basingstoke: Macmillan, 1991; Robert Wuthnow, *Communities of discourse: ideology and social structure in the Reformation, the Enlightenment, and European socialism*, Cambridge, MA: Harvard University Press, 2009; Joel Mokyr, *The gifts of Athena: historical origins of the knowledge economy*, Princeton, NJ: Princeton University Press, 2002.

[66]Elizabeth Eisenstein, *The printing revolution in early modern Europe*, 2nd edition, Cambridge: Cambridge University Press, 2005. Benedict Anderson, *Imagined communities: reflections on the origin and spread of nationalism*, London: Verso Books, 2006; Ernest Gellner, *Nations and nationalism*, Oxford: Basil Blackwell, 1983.

[67]For example, David Morley, *Media, modernity and technology: the geography of the new*, London: Routledge, 2006, p. 320.

521   certain communities such as diasporas. Otherwise, as we have seen, the most popular content
522   among audiences remains bounded by nation-states, regions, and languages.
523   The emergence of a wider 'public sphere' in civil society to provide legitimacy within the polity
524   came later.[68] 'Public opinion' first emerged in Europe in the eighteenth century with the spread of
525   print, which also meant that elites henceforth had to appeal to people's support via media.[69] Yet it
526   took more than a hundred years for media to penetrate the everyday life of more than an educated
527   elite stratum. Bayly says that, whereas in 1828 there were 3,168 newspaper titles in total around the
528   world, by 1900 this 'had reached 31,026, the print runs of many being in the hundreds of
529   thousands'.[70] These newspapers were more up-to-date, covered worldwide topics, and reached
530   a sizeable part of the population. This was new; only in the nineteenth century, according to
531   Osterhammel, did regularly printed media become a force which penetrated the everyday life
532   of more than a tiny educated stratum, but, by this stage, the major newspapers carried news from
533   all around the world.[71] And, at least in Germany, by 1906, more than 95% of the printed news was
534   not more than one day old.[72]
535   The contours of how media subsequently became globalized should not be conflated with the
536   dominance of American consumer culture, which had its heyday in the post-war period and
537   spread to Europe and thence around the globe.[73] Broadcast media and print, in contrast, were
538   primarily national for much of the twentieth century, as Rantanen has documented by means
539   of tracing the histories of three households from around the world. She notes the slow shift away
540   from local media early in the twentieth century towards ever more national ones and beyond in
541   the early twenty-first. Her conclusion is that 'it was the national that became the most homoge-
542   neous' over the course of the twentieth century for the several countries that she examined.[74] A key
543   turning point in this development were the uses of media for propaganda during the 1930s.
544   According to Ward, this was when 'the unified nation became the central element in many
545   peoples' [sic] lives'.[75] Transnationalism became more widespread in terms of the reach of media
546   with the additional layer of satellite television during the 1980s and more recently with digital
547   media. Nevertheless, as already mentioned, recent studies have shown how digital media, too,
548   are being adapted and domesticated in various local contexts.[76]
549   Political media publics are thus still primarily national and, whereas a few American digital
550   media companies now dominate markets globally for advertising and entertainment, their reach
551   is limited – in terms of ownership as well.[77] This point is worth elaborating, particularly for the
552   United States, which is the best-documented case, and also the most important one because of the
553   global reach of American companies. Yet, even if we focus on how reach is dominated by a few
554   companies within the United States, the concentration of attention matters most for politics. The
555   reason is that attention is concentrated among a few companies, as Hindman has shown, and
556   above all Google and Facebook, which now together account for 73% of all advertising revenue
557   in America because they have been able to build up the strongest audiences.[78] The concentration
558   of advertising revenue in turn means that local or regional news outlets have declined dramatically

[68]Jürgen Habermas, *Theorie des kommunikativen Handelns*, 2 vols., Frankfurt: Suhrkamp, 1982.
[69]Briggs and Burke, *Social history of the media*, pp. 70, 72, 76.
[70]Christopher Alan Bayly, *The birth of the modern world 1780–1914*, Oxford: Blackwell, 2004, pp. 19–20.
[71]Jürgen Osterhammel, *Die Verwandlung der Welt: eine Geschichte des 19. Jahrhunderts*, Munich: C. H. Beck, 2009, pp. 74–5.
[72]*Ibid.*, p. 64.
[73]Victoria De Grazia, *Irresistible empire: America's advance through twentieth-century Europe*, Cambridge, MA: Harvard University Press, 2005.
[74]Terhi Rantanen, *The media and globalization*, London: Sage, 2005, p. 88.
[75]Ken Ward, *Mass communications and the modern world*, Basingstoke: Macmillan, 1989, p. 132.
[76]Miller *et al.*, *How the world changed social media*.
[77]Eli Noam, *Who owns the world's media? Media concentration and ownership around the world*, New York: Oxford University Press, 2016.
[78]This paragraph is based on Matthew Hindman, *The internet trap: how the digital economy builds monopolies and undermines democracy*, Princeton, NJ: Princeton University Press, 2018.

in the last five years, leaving only a few national outlets such as the *New York Times* and the *Washington Post* to set the agenda among news outlets, newspapers that continue to have strong online readerships and sustainable revenue from subscriptions and advertising. In terms of the overall reach of online sources, however, and how these are concentrated for politics, it is worth bearing in mind that news, or what constitutes the public sphere, only constitutes 3% of web traffic overall, and local news less than 0.25%. The remaining online attention, the vast bulk, is online entertainment and consumption, or cultural and economic activity. In other words, again, it is only for political publics that there is a strong zero-sum competition for the very limited amount of attention that is devoted to news and politics, and that shapes the political agenda.

If digital media have not greatly expanded the diversity and the geographical offerings for politics, they have also not greatly expanded the geographical range or the number of relationships in our interpersonal lives. Mediated relations have become more frequent, but they have not radically transformed people's lives. Fischer, for example, in his detailed social history of the telephone in the United States, argued 'that telephone calling solidified and deepened social relations' rather than changing them.[79] The same is true for mobile phones. Ling, Bjelland, Sundsøy, and Campbell have shown that our regular and most frequent contact via mobile phones, both text and voice, is with a small number of people, and that the stronger the tie via mobiles, the closer those ties are geographically.[80] More recently still, social media have intensified interpersonal relations still further, but the ability to gain large audiences by means of YouTube and Twitter, for example, is constrained to a few celebrities, as in other media.

In terms of (non-work) everyday life, it is important to remember that the vast bulk of what has been added to people's media routines consists of consuming entertainment. The main exception is that seeking information has become a more central part of everyday practices. The fact that information-seeking online has become a routine daily activity has not been sufficiently appreciated, even if it has many non-digital antecedents.[81] Nevertheless, even here, the sources of information that are sought and accessed online are mostly the websites of the commercial companies, though there is one exception among the top ten sites around most of the world: Wikipedia. This makes Wikipedia, with all its different language versions, into a genuinely novel mass phenomenon, with parallels to the Enlightenment's *Encyclopedie*, except that it is now available on a massive scale and accessed on a daily basis by millions of users.[82]

Conclusion

Since the broad-based adoption of digital media during the early 1990s, media research has become ever more focused on recent trends. Digital media have made available abundant data sources to analyse globalizing processes. Yet there are also dangers in an excessive concentration on the present. Michael Mann has referred to this as the 'sociology of the last five minutes'.[83] In the case of media, the danger arises not just because print and broadcast will continue to co-exist alongside digital media. Mobile phones and other digital media are bound to become ubiquitous; yet, even if they become the most common ways to use media, other devices will play important roles. Another reason why a more historical perspective can guard against 'presentism' is that, in an era when the relatively simple media environment of the twentieth century has been displaced by greater complexity in the twenty-first, it is important not to exaggerate this complexity: after all,

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[79]Fischer, *America calling*, p. 266, and see also p. 262.

[80]Rich Ling, Johannes Bjelland, Pål Sundsøy, and Scott Campbell, 'Small circles: mobile telephony and the cultivation of the private sphere', *The Information Society*, 30, 4, 2014, p. 288.

[81]William Aspray and Barbara Hayes. *Everyday information: the evolution of information seeking in America*, Cambridge, MA: MIT Press, 2011.

[82]Nathaniel Tkacz, *Wikipedia and the politics of openness*, Chicago, IL: University of Chicago Press, 2015, pp. 4–5.

[83]See Michael Mann's Wiles lectures, 'Imposing labels on ages: modernity and globalization', 2000, summarized at http://users.sussex.ac.uk/~hafa3/mann.htm (consulted 16 October 2018).

such shifts, when several old and new media technologies existed side by side, have taken place
before. One way to nevertheless encompass the implications of these technologies within an
overarching framework, as suggested here, is to show how the reach of media infrastructures
among publics has slowly and unevenly been extended, and to contrast this with earlier periods.
Even if the contours of media are still changing, there are also many continuities.

The answers in this article to the question 'does the study of media have a truly global and
interdisciplinary dimension?' have been mixed. In terms of the global, there are infrastructures
with a reach that goes beyond national media systems, but they do not reach the whole of the
globe. China is the main example that stands in the way of the global reach of Amazon,
Google, Facebook, and others. There are infrastructures that reach much of the globe, where
societies are open, but there is also a bloc that keeps a measure of closed-ness, such as China,
Iran, North Korea, Russia, and others. Thus, understanding globalizing processes must take heed
of how far media reach in practice. In terms of the interdisciplinary, there is much scope for
further integration, particularly between media and communications research and other
disciplines, such as sociology, anthropology, and history. At present, these disciplines are poor
at drawing on each other. But a long-term comparative historical analysis can pave the way
for overcoming these limited interactions.

This article has detailed how media infrastructures have shifted their reach – or how they
penetrate more deeply – into everyday life. This reach is intensive both in depth, or in terms
of the amount of time spent with media and how media connect us with others and with infor-
mation, and also in breadth, or how much of the population, in terms of geographical reach, uses
media routinely. One implication is that the breadth and depth of political input via media from
civil society has slowly expanded. Yet, whereas digital media were initially heralded as a force for
greater democratization and greater cosmopolitanism, they have also led to division and exclu-
sion. Bayly has summed this up for recent decades when he says that 'global communication
helped to transform local grievances and loyalties into broad alliances of the angry and those
for whom individualistic consumption provided no moral compass'.[84] Indeed, it is now clear that,
while digital media often held great promise for progressive politics, as during the Arab Spring,
one reason that this movement, like others, was suppressed was precisely because of the lack of a
well-established and broader and autonomous media infrastructure.[85] More recently still, perhaps
the tide has turned further, whereby digital media have enabled populist anti-globalizing forces
whose prospects, as Bayly hints at, are as yet unclear.

Over the course of the last century, the increasing uses of media have meant that people across
the globe have become more tethered: to each other, and to information. Some have therefore
spoken of an increasing 'mediatization' of social life.[86] However, it is important not to exaggerate
the effects of this ever denser web of connections. One way to do this, as indicated at the outset, is
to separate the political uses of media from the uses for socializing, entertainment, and consump-
tion. Political uses of media, which sit at the interface between political elites and the publics of
civil society, play a limited role in most people's everyday lives, but they have become the central
mechanism whereby the political agenda is set. Political inputs are being translated, via public
sentiment as expressed in media, into governance and legitimacy. This agenda is continually
contested and shaped by various actors but it also guides societal development. The reach of
media infrastructures for politics has become more global, but the primary focus remains the
nation-state, including the forces that challenge it.

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[84]Christopher Alan Bayly, *Remaking the modern world, 1900–2015*, Chichester: John Wiley and Sons, 2018, p. 327.
[85]Philip Howard, *The digital origins of dictatorship and democracy: information technology and political Islam*, Oxford: Oxford University Press, 2010.
[86]Stig Hjarvard, 'The mediatization of society: a theory of the media as agents of social and cultural change', *Nordicom Review*, 29, 2, 2008, pp. 105–34.

Outside political publics, people spend a large part of their everyday lives with media, but their interpersonal ties via media are still confined to small circles of relations, and their consumption of media (or via media) is largely circumscribed by the confines of national or linguistic cultures. Even as the span of media infrastructures reaches ever further, and interpersonal and audience habits become saturated with media, or as people become more tethered to each other and to information, there has been no homogenization around the world, except insofar as the everyday habit of tetheredness itself has become more widespread. Although the turn of the century has brought with it a new set of digital infrastructures that are suffusing everyday life, they too, like the infrastructures before them, are becoming a routine part of the social fabric.

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