SPECIAL SECTION: MEDIA AND MOBILITY

"Traffic"—On the Historical Alignment of Media and Mobility

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In a nineteenth century context, traffic could mean both communication and the transportation of goods and people.¹ For instance, the German term "traffic" (*Verkehr*), referred to "communicating" (*verkehren*) and to "traffic"/"transportation" (*Verkehr*). Historically speaking, before the age of telegraphy, any communication over distance required the physical transport of a message or a messenger. Many authors, thus, identified the latter as a fundamental caesura in the relationship between media and mobility, uncoupling media from their previous reliance on physical movement.² At the same time, telegraphy and the railway formed a paradigmatic symbiosis that enforced the ongoing duality between media and mobility: traffic depended on and sometimes boosted communication and vice versa. Hence, traffic and media were not disconnected as such, but their connections were rearranged and new ones emerged while others such as the postal services persisted. Despite such ongoing entanglements, the term "traffic" came to address physical movement for most of the twentieth century, while "mobility" in addition might refer to a person's movement within social hierarchies. But the former references of "traffic" to the media realm had almost been lost.³ Traffic and communication were predominantly understood and analyzed as separate entities, often neglecting the simple fact that any news or press agency requires traveling journalists, that global television pictures since the 1960s were based on satellite technology and space flight, and that even telegraphy had heavily relied on physical transport, including the final door-to-door-delivery of telegrams.⁴ Communication and transportation technologies were said to conquer space equally, but conceptualizing them as separate entities concealed their intricate relationship and culminated in the prospective "substitution thesis" that "tele-" or "virtual travel" would substitute for "physical travel."⁵

In the past, we had to look into media theory to stay aware of the intense correlations between media and transport technologies since it was only there that they were studied more intensely. Authors such as Paul Virilio

aligned them as techniques that enlarge the spatio-temporal horizon and form similar infrastructures, while Harold Innis further classified media in respect to its mobility—its dissemination over time and space—by discerning “time-biased” media such as the persistent stone carrying scripts and “space-biased” media such as the transportable papyrus.⁶ Aligning mass motorization and broadcasting, Raymond Williams coined the term of “mobile privatization” to hint at the parallel processes of mobility and the home-centered privatization of postwar consumer culture.⁷ According to Williams, past public technologies such as the railway were increasingly substituted by technologies that served “an at once mobile and home-centred way of living” such as private cars or domestic television sets with their moving images from around the globe. Many others have focused on the windshield view, relating it to cinema or television experiences, or studied the changes in media resulting from a gaze in physical motion (ads being read by pedestrians, by car drivers, etc.).⁸ More recently, the French *médiologie* approach has taken up the tradition established by McLuhan and others to apply a wide, fluid concept of “media” embracing both audiovisual and transportation vehicles; it includes anything that “mediates” things and ideas.⁹ Here, the focus is broadened beyond “media” toward a wide range of questions on how ideas or mentalities are manifested via different kinds of transmissions or translations in both the symbolic and in the material world. At that point, admittedly, we have moved quite far away from the idea of “traffic” as the movement of people or goods, or the movement of ideas, words, images, or digits respectively, including their historical connections, and reached a point where current media as well as social theories—be it *médiologie* or Actor-Network Theory—try to expand a narrow understanding of “media” in favor of a broader one of “mediations.” One possible approach in this vein to “mobilize” former understandings of mobility and/or media is presented in this special section by Gabriele Schabacher.

Phoning on the Move, Navigating Screens and further Paths toward Mobile Media

Only at the end of the twentieth century and linked to the digital, “wireless” turn, have we reached once more a situation where the intrinsic ties between movement and media are largely rediscovered across both many academic disciplines and in the larger public discourse. Not only do we currently observe a merging and reinterpretation of previous media technologies and formats which have been described as convergence and remediation,¹⁰ but the respective digital, multi-media terminals have

become mobile networked entities enabling a permanent media-based, yet wireless, connectivity of a “tethered self.”¹¹ In colloquial expressions such as “navigating the screen” or “driving on the data highway,” media and movement even become indistinguishable. It seems that terms such as “networking” or “network-mobility” could be compared to the historical identifier “traffic” (*Verkehr*), suggesting, as mentioned, a close interconnection between communication and transportation.¹²

Currently, the intricate relation between media and mobility is being approached in particular in mobility history, communication studies, and a revitalized mobility research. A broadly defined concept of mobility—encompassing the movement of people and goods as well as ideas and information, respectively—provides the foundation for most of this research. Terms such as “technologies of mobilities”¹³ or “personal mobilities”¹⁴ subsume the physical and virtual mobility of various kinds of technologies and the individual alike. Behind such comprehensive concepts lie two historical processes that could ideally be described as the “mobilization” of media technologies (e.g., the mobile internet) and the “mediatization” of transportation technologies (e.g., the media-saturated car). Both emerged simultaneously, in interaction, even deep entanglement, and they are ongoing processes.

Inside new mobilities studies, media recently emerged as an important topic due to this mediatization of transportation and travel and the question of how to stay connected as a mobile person.¹⁵ However, in many of these studies, other issues stay at the forefront such as the paradox that any mobility goes along with immobility and “moorings”, or the “motility” concept that emphasizes the potential to move rather than physical movement itself.¹⁶ Another stream of argument in recent historical and media studies goes one step further and singles out more cases of such immediate intersections of media and mobility.¹⁷ Transportation and media technologies interacted and interact, when it comes to ensuring co-ordination and navigation as well as control and security in travel and transportation, and they also concur for the case of distant governing in the larger sense. Monitoring and communicating provide security and efficient co-ordination of traffic. Post-war mass motorization, for instance, was supported by car and police radio, traffic news or more recently, GPS navigation. In the digital world, nearly any movement has become the object of surveillance, and therefore generates information. Media technologies enable communicative connectivity, such as navigation and media entertainment while on the move. Examples include the postcard from 1900 as much as the car radio of the 1920s onward—eventually providing traffic news and navigation advice—or the mobile phone. Moreover, media accompaniment enhanced and enhances the travel experience in manifold ways, be it by delivering a feeling of safety, by

enabling the exploration or the documenting of the as yet unknown terrain, or through entertainment. The field of such an immediate symbiosis of media and mobility is vast and has a long history. The telegraph-railway pairing figures as a paradigmatic example of control and connectivity, whereas the portable camera could be mentioned as a paradigmatic example for the links between discovery, media, and movement: both the scientific community and a broader public, anxious to travel the world in a virtual way, benefited from the visual exploration of the world by traveling explorers and photographers.

Meanwhile, the appearance of “portable” or “mobile media” culminating in the widespread diffusion of cell phones and “smart” multi-media portables in the last decade and the current situation of “mobile connectivity” or “mobile networking” have constituted a new sub-field of research.¹⁸ At the same time, the pertinacious substitution thesis has given way to a more complex view: Recent approaches not only suggest a “substitution” of traffic by means of communication but also mention a mutual modification of movement and media, or even a mutual enhancement. Besides, they stress a more profound interdependence of media and traffic, for instance when telecommunication potentials shape settlement behavior and, hence, transportation in the long term.¹⁹ Indeed, as geographer Peter Adey describes in his overview on mobility, movement and being mobile were part and parcel of an emerging “media society.”²⁰ Even before the availability of truly “mobile” media that users could carry along for their perpetual connectivity, a mobilization of media and a mediatization of movement were in place and in many moments intersected, as Regine Buschauer’s article in this special section also demonstrates.

The Contributions in the Special Section on Media and Mobility

The Special Section at hand gathers new approaches toward the media/mobility convergence as they are developed to date inside media studies. This focus was explicitly chosen to encourage further discussions on—or one might even say “mediations” between—the current turn to mobility in media studies and the broader, multidisciplinary framework of “new mobilities studies.”²¹ The Special Section strives to reappraise how media studies react to the recent media transformations and how they re-phrase the media/mobility nexus.

At least three different approaches can be discerned, all three represented in this Special Section: one, a *media and discourse history*, looking at the ongoing transformations in media and the “un-fixedness” of what media is; two, a *media culture* approach grounded in concepts of

STS (Science and Technology Studies) and ANT (Actor-Network Theory); and three, a communication studies approach based on spatial theory.

(1) Media studies, addressing primarily historical changes in media and communication, concentrate their attention on communication and transportation networks, on mobility practices or circulation.²² A key research focus of these “new” media studies is the history of the mobile phone, as already mentioned. Instead of investigating a single, concrete device or a specific media technique, *media and discourse history* concepts strive to delineate a heterogeneous field of mobile communication media.²³ Hence, many of these approaches are based on a multi-layered historical conception that analyzes the close connection between media and mobility as placed within different historical genealogies.²⁴ In this issue, Regine Buschauer follows this notion. Elaborating on William Uricchio’s concept of “media in transition”—the idea that a medium is never a “fixed” but has interpretative flexibility and undergoes continuous transformations²⁵—Buschauer introduces the concept of the “ambulant” and, along with it, guides the reader into the heterogeneous past of mobile communication media. She relates today’s cell phones and their status of being “in-between” to past wireless telegraphy, so-called “radiotelephony” and CB (citizens’ band) radio as significant earlier, yet likewise “ambulant” media constellations. Using the “ambulant” as a heuristic tool, the essay shows that both past and present mobile media have had or still have an ambiguous status between “movement” and “fixity.” By referring to both the mobility of bodies and to that of communications, studies such as the one presented also actively merge media history with a history of traffic.

(2) In addition to the aforementioned *médiologie* approach, scholars representing Actor-Network Theory work on expanding the entire concept of mobility as such.²⁶ One way to do so is by focusing on those infrastructures that both traffic and communication are based upon. Such scholars suggest that “infrastructures” need to be conceived of as “processes of mobilization” and, consequently, they stress their highly dynamic nature. This is in stark contrast to previous descriptions of “mobility infrastructures”—be it street or glass fiber networks—as static and inflexible.²⁷ The concept of technical mediation provides the means to bring together transportation and transformation (processes).²⁸

In this vein, Gabriele Schabacher’s article discusses the relationship between infrastructure systems and mobility. She argues that media and transportation infrastructures are not only the basis for mobility but a form of mobility themselves as they represent processes of mobilization or “infrastructuring.” This approach questions mobility studies’ recurring juxtaposition of mobility and fixity and their “motility” concept. The author integrates approaches from both STS and Actor-Network-Theory, discussing Callon’s idea of “mobilization” and Latour’s concept of

“mediation.” Functioning infrastructures appear to be black boxes, “static,” or fixed (intermediaries). Yet, Schabacher argues that this impression derives from overlooking the underlying, invisible “mobilizations,” “mediations,” and “transformations” in the development and operation of infrastructure systems.

(3) A third group of studies draws on recent spatial theories and examines how correlating mobility and media affect the perception of space and time. Key concepts, here, are on the one hand, the heterotopia of Michel Foucault,²⁹ centered around “places” predominately localized on the fringes of society. Thus, places of otherness have dual meanings of “real” and “unreal,” of inclusion and exclusion, of distinct structures as well as ritualized discourses and practices. Employing topological concepts such as the notion of (hetero-)topia promises new insights into the types of spatiality and spatial practices created by mobile media. On the other hand, approaches addressing the interconnectedness between globality and locality, between distance and closeness in the field of mobile media, can be found. They argue that in the age of global, digital media the “local” (re-)gains power, as all mobile space relationships are mediated locally across personal, institutional, and collective levels.³⁰ Most of today’s mobile media gadgets, for instance, serve to localize their users.³¹

The article by Joseph F. Turcotte and M. Len Ball combines these two spatial approaches to investigate the changing perception of space in users of so-called MDNTs (mobile, digital, and networked technologies). From a heterotopic point of view, the authors argue that “mobility is embedded within larger social and technological networks.” According to a notion of “mediated information,” networks “interpolate the user [...] instead of the relationships and situations that are encountered while traveling social spaces.”³² The ubiquitous nature of MDNTs alters the ways individuals orient themselves in relation to varying spaces—both on- and offline—thus enabling subjects to (re-)negotiate their local environments.

The articles of this special section on Media and Mobility emphasize conceptual approaches, opening up the discussion on media and mobility. In following up on this notion, they seek to invite both complementary “Mobile Media Histories” and individual studies on the nexus between media devices and means of transportation.

Notes

1. Cf. Schabacher in this volume. Cf. also: Hermann Glaser, “Verkehrskulturen,” in *Handbuch Verkehrspolitik*, ed. Oliver Schöller, Weert Canzler, Andreas Knie (Wiesbaden: VS Verlag für Sozialwissenschaften, 2007), 63–82.

2. Cf. as classic James Carey, *Communication as Culture* (New York and London: Routledge, 1989).
3. Interestingly enough, the American term “common carriers” continued to converge the transport of people, goods and information, since the Mann-Elkins Act from 1910 had designated telephone, telegraph, and cable companies also as “common carriers.”
4. Gregory J. Downey, *Telegraph Messenger Boys: Labor, Technology and Geography, 1850–1950* (New York: Routledge, 2002). In the digital world, bike messengers made a re-appearance as physical movers of messages; cf. Jeffrey L. Kidder: “Mobility as Strategy, Mobility as Tactic: Post-industrialism and Bike Messengers,” in *The Cultures of Alternatives Mobilities*, ed. Phillip Vannini (Farnham: Ashgate, 2009), 177–193.
5. A lot of research in the field of media and transport was concerned with this idea; cf. for instance Claude S. Fischer, Glenn R. Carroll, “Telephone and Automobile Diffusion in the United States, 1902–1937,” *American Journal of Sociology*, 93, no. 5 (March 1988): 1153–1178; Anne Sofie Laegran, “Escape Vehicles? The Internet and the Automobile in a Local–Global Intersection,” in Nelly Oudshoorn, Trevor Pinch, eds., *How Users Matter: The Co-construction of Users and Technologies* (Cambridge: MIT, 2003), 81–100.
6. For influential reference texts, see Harold Adams Innis, *The Bias of Communication* (Toronto: University of Toronto Press, 1951); Marshall McLuhan, *Understanding Media: The Extensions of Man* (New York: McGraw-Hill, 1964); Paul Virilio, “Véhiculaire,” in *Nomades et Vagabonds*, ed. Jacques Bergue et al. (Cause commune no. 2 (Paris: Union Generale d’Editions, 1975)). Cf. also Jonathan Sterne, “Transportation and Communication: Together as You’ve Always Wanted Them,” in *Thinking with James Carey: Essays on Communications, Transportation, History*, ed. Jeremy Packer and Craig Robertson (New York: Peter Lang, 2006), 117–135.
7. Cf. Raymond Williams, *Television: Technology and Cultural Form* (New York: Schocken, 1975), 25–26.
8. In addition to the authors mentioned above, see: Rudolf Arnheim, “A Forecast of Television,” in *Film as Art* (London: Faber, 1969), 156–163; Margaret Morse, “An Ontology of Everyday Distraction: The Freeway, the Mall, and Television,” in *Logics of Television. Essays in Cultural Criticism*, ed. Patricia Mellencamp (Bloomington: Indiana University Press, 1990), 193–221; Marita Sturken, “Mobilities of Time and Space: Technologies of the Modern and the Postmodern,” in *Technological Visions* (2004), 71–91; from an urbanisms’ perspective: Donald Appleyard, Kevin Lynch and John Myer, *The View from the Road* (Cambridge, MIT Press, 1964); see also: Catherine Gudis, *Buyways: Billboards, Automobiles, and the American Landscape* (New York/London: Routledge, 2004) (Cultural Spaces series, ed.: Sharon Zukin). Elaborating on Wolfgang Schivelbusch’s idea of a “panoramic seeing” out of the train window, more recent media studies have scrutinized the intermedial relations of railway and cinema; see e.g. Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema* (Durham: Duke University Press, 1997). On the relationship between technologies of information and control, see the study by Engell, who examines, based on televised pictures of the Apollo space program, the impact of this link on how pictures are produced and how we see the world. Lorenz Engell, “Die kopernikanische Wende des Fernsehens,” in: *Das Planitarische. Kultur-Technik-Medien im postglobalen Zeitalter* (München: Fink, 2010), 139–154.

9. See the “Cahiers de médiologie” (of which No. 5, for instance, discussed the bike as “medium”), Régis Debray, *Introduction à la médiologie* (Paris: PUF, Collection Premier Cycle, 2000), or, more closely on the media-mobility-relation, Catherine Bertho Lavenir, *La Roue et le Stylo. Comment nous sommes devenus touristes* (Paris: Éditions Odile Jacob, 1999).
10. Kristóf Nyíri, ed., *Integration and Ubiquity; Towards a Philosophy of Telecommunications Convergence* (Vienna: Passagen Verlag, 2008) [Communications in the 21st Century, ed. Kristóf Nyíri]; Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, MA: MIT Press, 1998).
11. Term coined by Sherry Turkle. See Sherry Turkle, “Always-On/Always-On-You: The Tethered Self,” in *Handbook of Mobile Communication Studies*, ed., James E. Katz (Cambridge, MA: MIT Press, 2008), 121–137.
12. See the concepts of ‘traffic’ in the contributions by Regine Buschauer and Gabriele Schabacher below.
13. Cf. e.g. Mimi Sheller, John Urry, eds., *Mobile Technologies of the City* (London, New York: Routledge, 2006).
14. Aharon Kellerman, *Personal Mobilities* (London, New York: Routledge, 2006). Kellerman’s recent book, *Daily Spatial Mobilities: Physical and Virtual* (Ashgate: Surrey, 2012) even uses quite blurry terms such as “public mobility media” for public transport means (92) or “personal mobility media” for walking (95).
15. See for instance John Urry on “Moving and Communicating” in John Urry, *Mobilities* (New York, NY: Wiley, 2007), 63–182.
16. Cf. Vincent Kaufmann, *Les paradoxes de la mobilité: bouger, s’enraciner* (Lausanne: Presses polytechniques et universitaires romandes, 2008) and Sheller’s overview on the field: Mimi Sheller, “Mobility,” Sociopedia.isa, 2011, online: <http://www.sagepub.net/isa/resources/pdf/Mobility.pdf> (May 16, 2012).
17. See, for instance, Jeremy Packer and Kethleen F. Oswald, “From Windscreen to Widescreen: Screening Technologies and Mobile Communication,” in *The Communication Review* 13, no. 4 (2010): 309–339; on the broad issue of control and distant governing by media and transportation technologies, see Jeremy Packer, “Rethinking Dependency: New Relations of Transportation and Communication,” in Jeremy Packer, Craig Robertson, *Thinking with James Carey*, 79–99. On navigating and communicating “on the go,” in a historical perspective, see Léonard Laborie: ‘Navigation, itinérance, enracinement: la mobilité aux frontières de l’histoire de la communication et de l’histoire des transports, XIXe–XXIe siècle.’ in: *De l’histoire des transports à l’histoire de la mobilité? État des lieux, enjeux et perspectives de recherche*, ed. Mathieu Flonneau, Vincent Guigueno (PU Rennes, 2009), 75–87; Richard Popp, “Machine-age Communication. Media, Transportation, and Contact in the Interwar United States,” in *Technology and Culture*, 2011, 52 (3): 459–484.
18. See Heike Weber, “Mobile Electronic Media: Mobility History at the Intersection of Transport and Media History,” *Transfers*, 2011, 1 (1): 27–51; Noah Arceneaux, Anandam Kavoori, eds., *The Mobile Media Reader* (New York: Peter Lang, 2012). On their historical roots, see Heike Weber, *Das Versprechen mobiler Freiheit. Zur Kultur- und Technikgeschichte von Kofferradio, Walkman und Handy* (Bielefeld: transcript 2008); Martin Stingelin, Matthias Thiele, Claas Morgenroth, *Portable Media. Schreibszenen in Bewegung zwischen Peripatetik und Mobiltelefon*

- (München: Fink, 2010). On mobile media applications, movement, and space, see, for instance, Eric Gordon, Adriana de Souza e Silva, *Net Locality: Why Location Matters in a Networked World* (Chichester: Wiley 2011); on the “mobile network society”: Manuel Castells, Mireia Fernández-Ardèvol, Jack Linchuan Qiu, and Araba Sey, *Mobile Communication and Society: A Global Perspective* (Cambridge: MIT Press, 2007). On the mobilization of screens: Nanna Verhoeff, *Mobile Screens: The Visual Regime of Navigation* (Amsterdam: Amsterdam University Press, 2012).
19. Cf., from a transportation studies perspective: Patricia Lyon Mokhtarian, “A Typology of Relationships between Telecommunications and Transportation,” *Transportation Research Part A, Policy and Practice* 24 (1990): 231–242.
 20. See Peter Adey, *Mobility* (New York/London: Routledge, 2010), in particular chapter 5 (“Mediations”).
 21. On the latter: Gijs Mom et al., “Hop on the Bus, Gus.” “Editorial,” in *Transfers*, 2011, (1) 1: 1–10.
 22. Gabriele Schabacher: “Fussverkehr und Weltverkehr. Techniken der Fortbewegung als mediales Rauminterface,” in *Raum als Interface*, ed. Annika Richterich and Gabriele Schabacher (Siegen: universi, 2011); Alexander C.T. Geppert et al., eds., *Ortsgespräche. Raum und Kommunikation im 19. und 20. Jahrhundert* (Bielefeld: transcript, 2005).
 23. Cf. Stefan Münker: “Post telephonis. Wie Ernst Jünger einmal das iPhone erfand und dann wieder doch nicht,” in *Dis Connecting Media. Technik, Praxis und Ästhetik des Telefons: Vom Festnetz zum Handy*, ed. Ulla Autenrieth et al. (Basel: Christoph Merian Verlag, 2011), 53–58; Regine Buschauer, *Mobile Räume. Medien- und diskursgeschichtliche Studien zur Tele-Kommunikation* (Bielefeld: transcript, 2010).
 24. See Wolfgang Hagen: “Zellular—Parasozial—Ordal. Skizzen zu einer Medienarchäologie des Handys,” in *Mediengeographie. Theorie—Analyse—Diskussion*, ed. Jörg Döring and Tristan Thielmann (Bielefeld: transcript, 2009), 359–380; Erika Linz: “Konvergenzen. Umbauten des Dispositivs Handy,” in *Formationen der Mediennutzung III. Dispositive Ordnungen im Umbau*, ed. Cornelia Epping-Jäger (Bielefeld: transcript, 2008), 169–188.
 25. William Uricchio, “Television’s First Seventy-five Years: The Interpretative Flexibility of a Medium in Transition,” in *The Oxford Handbook of Film and Media Studies*, ed. Robert Kolker (Oxford: Oxford University Press, 2008), 286–305.
 26. Based on concepts and considerations by Bruno Latour, “Centres of Calculation,” in *Science in Action. How to Follow Scientists and Engineers Through Society* (Cambridge, MA: Harvard University Press, 1987), 215–257; Bruno Latour, “Circulating Reference: Sampling the Soil in the Amazon Forest,” in Bruno Latour, *Pandora’s Hope: Essays on the Reality of Science Studies* (Cambridge, MA/London: Harvard University Press, 1999), 24–79; Michel Callon: “The Sociology of an Actor-Network: The Case of the Electric Vehicle,” in *Mapping the Dynamics of Science and Technology: Sociology of Science in the Real World*, ed. Michael Callon, John Law and Arie Rip (Basingstoke: Macmillan, 1986), 19–34.
 27. On the “infrastructural fixities” that lay underneath any virtual mobility, cf. e.g. also Martin Dodge and Rob Kitchin, *Atlas of Cyberspace* (London: Pearson Education, 2001).
 28. Bruno Latour: “On Technical Mediation,” in *Common Knowledge* 3, no. 2 (1994): 29–64.

29. Michel Foucault: "Of Other Spaces," *Diacritics* 16, no. 1 (Spring 1986): 22–27. Foucault's heterotopia was much discussed in the 1990's spatial turn; see for instance Edward Soja, *Journeys to Los Angeles and Other Real-and-imagined Places* (Oxford: Blackwell, 1996), and is currently discussed with regard to the general hybridity of mobile media spaces. See also Buschauer's study *Mobile Räume*, here 11–13.
30. Cf. Nicola Green, *On the Move: Technology, Mobility, and the Mediation of Social Time and Space* (Surrey, U.K.: Taylor and Francis, 2002); Nicky Couldry and Anna McCarthy, eds., *Mediaspace: Place, Scale and Culture in a Media Age* (New York, NY: Routledge, 2004); Turkle, *Always-On/Always-On-You*, 2008.
31. Cf. Gordon/de Souza e Silva, *Net Locality*, 2011.
32. See Turcotte/Ball in this section.

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