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# Communicating Mobility and Technology: A Material Rhetoric for Persuasive Transportation (Book Review)

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# Book review

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**Pflugfelder, E. H. (2017). *Communicating Mobility and Technology: A Material Rhetoric for Persuasive Transportation. New York:* Routledge, 2017.**

Humans are so enmeshed in mobility systems that they identify with themselves through those systems. In *Communicating Mobility and Technology: A Material Rhetoric for Persuasive Transportation*, Ehren Pflugfelder (2017) uses the term "automobility" to describe both "the specific kinds of mobility afforded by independent, automobile-related movement technologies" and "the complex cultural, bodily, technological, and ecological ramifications of our dependence on separate mobility technologies" (p. 4). Given identities enmeshed in ecologies of systems involving human and nonhuman actors through which transportation emerges, automobility is described as a "wicked problem" to be solved, in part, by technical communicators and communication designers naming and revealing the persuasive power of transportation systems. Understanding this persuasive power benefits practitioners by revealing the shared agency of automobility among the car-driver assemblage, and academics, by offering a framework for recognizing transportation as persuasive and therefore rhetorical.

The text contains seven chapters, the first two of which establish a theoretical framework for understanding mobility, and particularly automobility, as rhetorical. The framework relies on what Pflugfelder calls *kinesthetic rhetoric*: an approach where the material conditions of automobile planning, production, consumption, movement, destruction, and dependence require communication designers to engage and assist in developing persuasive environments for transportation. The next four chapters identify aspects of automobility in which practitioners and scholars alike engage in kinesthetic rhetoric: design, interface, logistics, and

navigation. At the close of each of these four chapters, Pflugfelder focuses on the practical role technical communicators and communication designers play in applying theory. The final chapter applies the theoretical framework and these sites of kinesthetic rhetoric to understanding why an electric vehicle project at a large Midwestern university failed.

Pflugfelder's approach to the wicked problem of automobility is distinctly *post-human*, in that it assumes that interactions among human and nonhuman entities enable mobility, and *new materialist*, in that it reveals the often-hidden persuasion of automobility designs. It takes what McNely, Spinuzzi, and Teston (2015) call a "radically symmetrical perspective on relationships between humans and nonhumans" (p. 5) where agency emerges from the human and nonhuman assemblages of entities involved in transportation movement. In the case of the personal passenger vehicle, humans are among constellated actors performing mobility, a performance that represents both the activity and persuasion of transportation. Pflugfelder identifies the persuasion of transportation, in part, as "an issue of understanding the *forces that coerce us into movement*" (p. 4, emphasis in original) and illustrates this persuasive force as a result of "a range of forces acting together…. reinforced and experienced as compelling forms of motion, because automobile travel often quickly and safely delivers us to our intended destination" (p. 14).

This approach to transportation as rhetorically persuasive requires technical communicators and communication designers to act as *symbolic-material* as well as *symbolic-analytic* workers capable of articulating and designing the persuasive environments of mobility systems. Pflugfelder relies on Johndan Johnson-Eilola's (2005) application of Robert Reich's (1991) "symbolic-analytic work" to differentiate between symbolic-analytic work's focus on symbolic meaning-making and symbolic-material work's focus on materiality. Pflugfelder identifies technical communicators and communication designers as "those that seek out deeper understandings of how cultural assumptions are coded into material productions and how those designs are continually re-cast as culturally meaningful objects" (Pflugfelder, 2017, p. 13). For practitioners, such work enables encoding of ecologically

responsible and ethical values into the material products of mobility; for scholars, such work encourages identification and critique of existing persuasive efforts in transportation.

Pflugfelder relies on both classical Greek and modern rhetorical theories in crafting his appraoch. Among the modern theories, Bruno Latour's (2005) actor-network theory provides much of the heavy lifting, especially in locating persuasive agency emergent among assemblage actants. However, Pflugfelder departs from Latour's insistence on a biological determinism in human/non-human assemblage agency, countering that "a great deal of what can be defined as persuasion occurs beyond or beneath human intention" (p. 23). He organizes his argument around an introductory chapter that explains "how networks of people and things are persuasive" (p. 17).

Chapter two focuses more directly on mobility and its relation to rhetoric, positing *kinesis*, Aristotle's term for movement with limits, as "a rhetorical term for persuasive movement" (p. 17) which he calls "kinesthetic rhetoric." These two chapters provide technical communication and communication design practitioners useful frameworks for understanding their designs as persuasive to assemblages of human and nonhuman entities functioning as agents of automobility. For scholars, these chapters offer methodologies for tracing rhetorical agency beyond actor-networks into posthuman, material assemblages in mobility fields.

Chapter three, in turn, does the work of addressing the persuasiveness of material in design. In this chapter, Pflugfelder connects design science, focused on approved and appropriate methods for solving design problems, with explicit *techne*, a universal "set of techniques used to accomplish something" (p. 46). He then connects design thinking, focused on applying heuristics for solving design problems, with abstract *techne*, a messier approach to rhetoric and activity that applies "knowledge about the *relationships between different actants*" (p. 46, emphasis original). He continues to argue that technical communicators should incorporate a combination of both in automotive designs toward engaging and matching the *hyle*, "a Greek term for the material in a given project" (p. 17) to the design and manufacture of automobiles as kinesthetic rhetoric. *Hyle*-centered application of explicit and

abstract *techne*, combined with *metis* ("cunning intelligence," p. 56), results in user-centered designs so long as the concept of *users* is expanded to include non-human and human agents: "we have other actants to consider, some of them nonhuman, some of them deeply important to a design's success or sustainability" (p. 56).

In examining these concepts, Pflugfelder argues that attentiveness to the *hyle* in design processes that incorporate both design science and design thinking helps designers avoid "ignoring the persuasive materials in a design" (p. 57). He identifies this attentiveness as an important role for technical communicators and communication designers, whose scholars must study the *hyle* of materiality in terms of its persuasiveness in design projects and whose practitioners must engage both explicit and abstract *techne* in advocating material designs for effective communications in automobility.

Chapter four addresses the relationship between metaphor and interface and encourages scholars and practitioners to unveil both the metaphors at work in interfaces and the importance of understanding interfaces not merely as surfaces or visual displays but as a "thin, non-geometric layer" where systems intersect (p. 67). Pflugfelder argues that "metaphors function as more than linguistic representations, but as elements within interfaces that help facilitate communication between humans and nonhumans" (p. 72) and, more generally, among interrelated systems. He advocates for the role of technical communicators and communication designers "working alongside interface designers in innovative transportation projects… to facilitate the development of useful metaphors for users" (p. 78). Scholars and practitioners are called upon to engage in innovative design projects by revealing the underlying metaphors that inhabit interfaces and to advise designers on effective interfaces that capitalize on culturally familiar metaphors.

Chapter five introduces a rhetorical understanding of *logistics* "as a persuasive series of connections that allow for compelling use" (p. 90). Compelling logistics are design and interface decisions that result in a trajectory or movement we seek to continue making, one that becomes habitual, while logistics that are less compelling, that do not energize users, are "less persuasive than other competing

logistics" (p. 92). The role of technical communicators and communication designers in automobility design projects is to help designers build compelling logistics based on giving voice to its users, helping designers recognize the kinds of mental maps that specific logistics enable or disable toward more or less persuasive designs. Practitioners work to keep logistics user-oriented by addressing the *hyle* of materials and the metaphors of interfaces, while scholars identify, research, and suggest logistics that enable compelling mental maps and persuasive designs.

Chapter six focuses on mapping writ large as "navigating the world with mobility technologies" (p. 99). Pflugfelder describes the process of navigation using mobility technologies as "a complex human–nonhuman hybrid performance" (p. 99) that focuses on the ever-shifting and emergent agency of automobility. Human and non-human actants negotiate navigational agency. Successful navigation requires successful negotiations of agency in kinesthetic rhetoric, negotiations that designs of increasingly automated automobility must take into account toward persuasion that such hybrid performances of automobility are safe, efficient, effective, and useful. The role of the technical communicator and communication designer in such design is to help drivers "into gradually understanding autonomous mobility" (p. 117): its design, its interface, its logistic, and its navigation. Practitioners assist in developing designs, interfaces, logistics, and navigation tools that are adequately familiar to users entering autonomous mobility units, while scholars study and research autonomous mobility to identify its connections and disconnects with users in design, interface, logistics, and navigation.

In chapter seven Pflugfelder's applies his ideas of articulation of kinesthetic rhetoric to a specific, failed Electric Personal Transportation Vehicle (EPTV) design project to help engineers, designers, and communicators "understand why it was not persuasive—as a project design, as a site for new interfaces, as a new logistic, and as a new *techne* of navigation" (p.121). Because kinesthetic rhetoric is a new theory, Pflugfelder is better able to identify the shortcomings of a project that "failed because it was *unsustainably compelling* to designers and users" (p. 138, emphasis

in original) than to focus on automobility design that successfully persuades.

In sharing the shortcomings, the chapter offers a heuristic for designers and communicators alike to develop mobility projects that succeed by successfully implementing kinesthetic rhetoric. He suggests the following approaches as aspects of this heuristic:

- Advocate for integrating actual users in project conceptualization and design;
- Consider the roles of nonhuman materials in designs, and maintaining focus on the *hyle* of materials;
- Help to guide the design of user interfaces and metaphors on which interfaces are based;
- Research how users make sense of large transportation systems and apply this knowledge to system interfaces;
- Record and research the scripts that go into the design and manufacture of technologies;
- Conduct user experience testing on interface designs, then recommend changes based on user experiences; and
- Identify moments of *metis* and *kairos* in typical acts of using mobilities technologies.

By noting these topics, Pflugfelder offers kinesthetic rhetoric as praxis vital to addressing the wicked problem of the internal combustion engine automobility.

Pflugfelder, in turn, builds this praxis on the theoretical foundations of Aristotelian rhetoric, Latour's actor-network theory, and new materialist approaches to rhetorical agency. For each theoretical argument presented, Pflugfelder focuses on the practical role of communicators in applying rhetorical theory, both at the close of each chapter and in the closing chapter of the text. And finally, he closes the book with this reminder to technical communicators and communication designers — scholars and practitioners alike — that "if we want to envision change in [automobility,] a system so deeply ingrained into everyday life, we need to embrace new methods and new positions that understand

and engage the relations between materiality, movement, and persuasion" (p. 155).

Kinesthetic rhetoric is a convincing set of methods and positions newly available to technical communicators and communication designers for research and practice. While *Communicating Mobility and Technology's* highly theoretical approaches appears to be written primarily for scholars, its application sections are approachable and well-suited to those who bridge the gap between scholarship and practice. The text will be of particular interest to scholars and practitioners who work within and around large systems and ecologies similar to automobility, including fields and sites like disaster communication, public transportation systems, government agencies, environmental rhetorics, and logistics planning.

## References


Johnson-Eilola, J. (2005). *Datacloud: Toward a new theory of online work*. Cresskill, NJ: Hampton Press.

Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford, UK: Oxford University Press. Clarendon Lectures in Management Studies

McNely, B., Spinuzzi, C., & Teston, C. (2015). Contemporary research methodologies in technical communication. *Technical Communication Quarterly, 24*(1), 1-13.

Reich, R. (1991). *The work of nations: Preparing ourselves for 21st century capitalism*. New York, NY: Knopf.