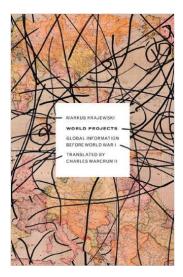
Markus Krajewski, **World Projects: Global Information Before World War I (Electronic Mediations)**, Minneapolis, MN: University of Minnesota Press, 2014, 272 pp., \$82.50 (hardcover); \$27.50 (paperback).

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The book **World Projects: Global Information Before World War I** represents an intriguing study about the ideas, concepts, and projects that tried to bring order on a global scale at the end of the 19th century and the beginning of the 20th. It covers the origins of global standardization in different fields and traces the mentality of the time through the biographies and ideas of particular personalities. The focus of the book is on world projects such as global currency, universal time, and world history. The study is primarily based on German-language sources marked with the *World-* (*Welt-*) prefix, and translator Charles Marcrum II manages to convey their meaning with elegance for an English-speaking audience from the original that book published in 2006 in German.



The key argument of this book is that around 1900, European networks, infrastructure, and media tended to weaken the boundaries between different political states, historical narratives, and local mentalities. Cultures experienced international integration that anticipated the current globalization phenomenon. Markus Krajewski argues that the global projects and the social trend to overcome national constructions originated in Germany, France, the United States, and—to a lesser degree—Russia, in contrast to England with its imperialistic goal of maintaining a global empire and keeping all innovations within a national framework. The author also suggests that even World War I was not a coincidence, but a logical response to these ubiquitous trends—a world project, so to speak.

Another meaningful idea that ultimately follows from the title is the idea of the projector. This character already appeared in other of Krajewski's works, for instance, in the edited book *Projektemacher*. The projector is a charismatic, enthusiastic, and inspired character of modernity that undertakes countless risky and ambitious projects. It's a startup creator of the 19th century. Focusing on case studies from archival materials, the author depicts the life and intentions of three projectors who suggested a global perspective on the world in their works: Wilhelm Ostwald, Franz Maria Feldhaus, and Walther Rathenau.

Apart from the original archival research, the book also engages in dialogue with important philosophers and theorists, such as Friedrich Nietzsche, Martin Heidegger, Bruno Latour, Michel Foucault, and Friedrich Kittler. For instance, the author reflects on Heidegger's concept of boredom expressed as staying in the waiting room of a train station. Krajewski shows that around 1900, the world gradually became interconnected, having left Heidegger's waiting room empty and a relic of the unconnected past. The author also highlights that this infrastructural internationalism not only concerned the material world and functioned as "movement of goods" but provoked a "movement of thought" as well.

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Although never implicitly mentioned, the research also intelligently responds to several current trends in media and technology history. At least three are most evident and worth mentioning. First, tracing international interconnections and integration, the author deals with infrastructure issues, networks, and traffic (Parks & Starosielski, 2015, Näser-Lather & Neubert, 2015). Second, the book represents an attempt to demediatize media studies by putting media in a larger context, revealing communication not only as a channel of information, but as logistical media, transportation, knowledge exchange, and technology-dependent commons (Peters, 2015). Third, the figure of projector brings personal attitude, emotions, and, finally, the concept of joy and playfulness to the history of technology and communication (Brown & Juhlin, 2015).

The book consists of five chapters, in which the first and the last play introductory and conclusive roles, while the three in the middle are case studies based on specific personalities. The first chapter introduces the reader to the world around 1900, and provides useful context. The second describes Wilhelm Ostwald and his projects of World Language and World Currency. The third chapter is devoted to the self-anointed specialist in science and technology Franz Maria Feldhaus, who attempted to embrace the World History of Technology. The last case study is a less obvious example of a projector—minister Walther Rathenau and his economic policy in Germany—who is also analyzed through the same theoretical lenses of the individual and his world projects. In the fifth, concluding chapter, Krajewski investigates the repetitive patterns in their biographies and ideas, suggesting the logic of projector and mentality of the time.

The first chapter reveals that this internationalism had an infrastructural foundation. It describes how, at the end of the 19th century, traffic was interconnected: The timetables of steamboats and trains were synchronized, big cities such as Bremen and London gave place on the maps to infrastructural points such as Bremerhaven and Southampton, and the routine of travel changed and became a global transit. Who other than Phileas Fogg could be a better example of transiting through the world in just 80 days, "jumping mathematically from the trains upon the steamers, and from the steamers upon the trains again"? The trains became a reference point for travelers and reinforced usage of "railway time," which was carried within the trains (see more in Edwards, 2010; Kern, 2003). The trend from local to global took place with the implementation of standard time, the international congresses on the metric system, Morse code, the Universal Postal Union, and a series of World's Fairs. The subtitle of the book, *Global Information*, turns out to be global communication in its largest sense.

The second chapter is devoted to Wilhelm Ostwald, who was obsessed with world currency, world language, world formats, world organizations, and other projects starting with "world." His fanatic attitude toward these kinds of ideas cost him his career—he went from being the only tenured professor of physical chemistry in the German empire to just a passionate projector. Ostwald supported the idea of a universal language, already suggested by different philosophers (such as Nietzsche) and other projectors, with Esperanto or Volapük. In 1911, he organized the World Language Office under the protectorate of the Universal Postal Union. The global language was supposed to serve the media-technological goal of global transit, and so also did another of his projects—world currency. Although none of these projects succeeded, especially because of the war in 1914, Ostwald didn't capitulate and instead launched another project, this one about the ideal book formats to maximize the usage of the paper. However, Ostwald's

projects never became truly world projects because "no world format can function without a world that accepts it" (p. 66). Nevertheless, his work and ideas made a great impact on the community and encouraged other projectors to develop their own, more successful "world" models.

The next section of the book illustrates the case of Franz Maria Feldhaus and his national index of Source Research on the History of Technology and Industry Inc. Employed by General Electric Corporation (AEG) to install electrical systems, he became interested in the history of technology. Piece by piece, for more than 50 years, he collected all possible information that he considered to be "technical-historical" and turned it into a large archive in card-catalog format. He also aimed to reach the public with this collection through his long-running radio program that examined technological and historical data and countless books about inventors and the history of particular technologies, such as *Historical Dates in Wireless Telegraphy and Telephony*. Aiming to embrace the world history of technology, in 1927 he even encouraged radio listeners to send him any technical-historical piece of information. He collected bare facts, being very precise. Unlike Ostwald, he didn't intend to implement a system that would completely change the world. He just collected the information to make it available to others for their future use. The Feldhaus Collection is now kept in the German Museum of Technology in Berlin.

The fourth chapter focuses on Walther Rathenau, the son of the founder of AEG and the sixth foreign minister of the Weimar Republic, who made the German Empire independent from world trade at the beginning of World War I. His stature contrasts with those of Ostwald and Feldhaus since he was a man of political power whose decisions had a tangible impact on the world economy. During the war, he developed a project now officially known under the name "War Raw Materials Department," which was an organization to facilitate access to raw materials for the German military. Although Rathenau was officially an organizer and coordinator of this corporation, this project was never just a job—it was a passion. His goal was to rationalize and advance the economy, not necessarily bring Germany to victory. Even after German defeat, he drafted a series of papers on pursuing a "global social economy" to manage international raw materials.

The final section of the book frames these three case studies and presents the main characteristics of the projector around 1900. Krajewski suggests that the intention to build world projects in a German context derived from the desire to counter the particularization caused by the collapse of the Holy Roman Empire in the 16th century as a political and social entity. It was also supported by the scientific revolution and the overall progress of time. The author draws attention to the fact that all of the projectors—in contrast to an engineer—envisioned their projects on paper, which could even be called a textocratic dominance. Finally, Krajewski suggests the main characteristic of the projectors around 1900—the so-called "remainderlessness," which stands for the desire to eliminate all remnants by including them in their projects. All initiatives around 1900 were built from outlines, considering the world as a whole including both obviously logical phenomena and previously disregarded peripheral details.

To conclude, this research deepens the knowledge of communication history by revealing original historical sources at the end of the 19th-century and beginning of the 20th-century, revising conceptual frames, and proposing new theoretical lenses. Regrettably, it lacks a dialogue with recent studies and findings in communication studies, although the findings and, therefore, the author's conclusions strongly

correspond with, and could enrich the recent debates on network, traffic, interconnectivity, and transnational approaches. This study reminds us that the current globalization period derives from personal attempts to trace, contextualize and explain the similarities among different cultures, nations, and countries by building communication among them and embracing the whole world. By proposing new theoretical and methodological models in the analysis of historical sources, Krawejski makes an important contribution to communication and media research.

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