

Open Standards and the Digital Age

History, Ideology, and Networks

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About the Book

How did openness become a foundational value for the networks of the twenty-first century? *Open Standards and the Digital Age* answers this question through an interdisciplinary history of information networks that pays close attention to the politics of standardization. For much of the twentieth century, information networks such as the monopoly Bell System and the American military's Arpanet were closed systems subject to centralized control. In the 1970s and 1980s, however, engineers in the United States and Europe experimented with design strategies to create new digital networks. In the process, they embraced discourses of "openness" to describe their ideological commitments to entrepreneurship, technological innovation, and participatory democracy. The rhetoric of openness has flourished - for example, in movements for open government, open source software, and open access publishing - but such rhetoric also obscures the ways the Internet and other "open" systems still depend heavily on hierarchical forms of control.

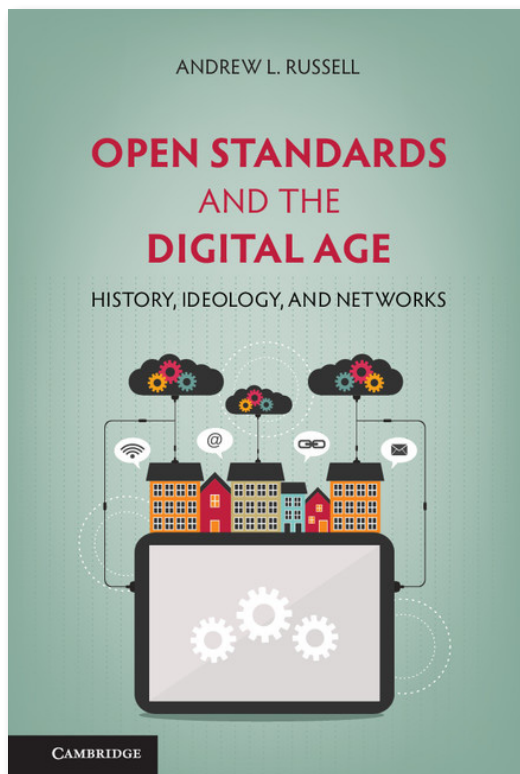
Key Features

- Offers a rigorous, original, and critical interpretation of the origins of the Internet and the information age
- Provides the first history of American communication and information technology to focus on standardization, with a clear description of where standards come from and how they are a central element of American political economy and global business
- Includes historical analysis that brings a fresh perspective to policy debates over the globalization of Internet governance

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Praise:

“This book contributes significantly to our understanding of the current state of affairs in information technology and governance, while also making original contributions to our understanding of the evolution of business institutions across the long twentieth century. Drawing on substantial original research, Andrew L. Russell argues that processes for setting industry standards have embodied broadly felt (and often competing) values regarding American governance. He shows how standards-setting has functioned as a central element of American political economy, with a rich history of far greater importance in the affairs of the nation than historians have previously understood. In the process, we come to see how the current enthusiasm for open systems and standards fits in a larger story of American governance. The current situation is neither a radical break nor an idealized state, as much contemporary literature insists and celebrates. Rather, it is a refinement in the face of shifting economic conditions that reflects and draws on a persistent commitment to economic liberalism. This is an important point that will garner considerable attention from historians and contemporary business analysts.” – Steven W. Usselman, Professor of History and Chair of the School of History, Technology, and Society, Georgia Institute of Technology

Contents

1. Introduction; 2. Ideological origins of open standards I: telegraph and engineering standards, 1860s–1900s; 3. Ideological origins of open standards II: American standards, 1910s–1930s; 4. Standardization and the monopoly Bell System, 1880s–1930s; 5. Critiques of centralized control, 1930s–1970s; 6. International standards for the convergence of computers and communications, 1960s–1970s; 7. Open systems and the limits of democratic design, 1970s–1980s; 8. The Internet and the advantages of autocratic design, 1970s–1990s; 9. Conclusions: open standards and an open world.

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