9-2009

Book Review: The Internet and American Business, eds. William Aspray and Paul E. Ceruzzi

Joseph A. November
University of South Carolina - Columbia, november@sc.edu

Follow this and additional works at: https://scholarcommons.sc.edu/hist_facpub

Part of the History Commons

Publication Info

FFRDCs exemplify the complicated structures of innovation that characterized government-directed science and technology development during the cold-war period—and continue to shape how science and technology are funded in the United States. Second, and more important, *Internet Alley* provides a compelling example of why the study of geography and materiality still matters in the history of business and technology, even in our modern information society. "Geography always plays a role in technical innovation," Ceruzzi argues, and it "deserves emphasis for no other reason than the frequently heard claim that the Internet has annihilated space" (p. 136). Ceruzzi is not the first to make this argument, but he is one of the first to deliver on its promise. Although we tend to think of the Internet as a disembodied cyberspace, in reality it is, in part, physical infrastructure. Understanding the materiality of the Internet has crucial implications for how we think of its role in national defense, in the structure of our economy, and in our ability to control and govern its inhabitants.

Nathan Ensmenger is assistant professor in the History and Sociology of Science department at the University of Pennsylvania. He has written numerous articles on the history of software, and his book The "Computer Boys" Take Over: Computers, Programmers, and the Politics of Technical Expertise *is being published by MIT Press.*

.   .   .

The Internet and American Business. *Edited by William Aspray and Paul E. Ceruzzi.* Cambridge, Mass.: MIT Press, 2008. viii + 596 pp. Figures, notes, index. Cloth, $50.00. ISBN: 978-0-262-01240-9.

Reviewed by Joseph November

The conventional wisdom holds that the Internet has profoundly changed business practices, especially in the United States. However, when it comes to enumerating exactly what changes took place in those practices, most observers seem to be at a loss for words. Without moving past the general, analyses of the effects of the Internet on business remain mired in cliché and error. Therefore, a welcome addition to the bookshelf of any scholar trying to understand precisely how the Internet changed American business would be *The Internet and American Business*, with its fourteen thoroughly researched studies of the effects of specific Internet technologies on specific companies and sectors.

The latest addition to MIT Press's trailblazing History of Computing series, this volume, edited by historians of computing William Aspray and Paul Ceruzzi, features contributions from professional his-

torians as well as historically minded computer scientists, economists, and other scholars. The diverse contributions are consistently well written, carefully edited, and meticulously grounded in a wide variety of sources. Furthermore, each study breaks almost entirely new ground, the only downside being the unavoidable lack of discussion of similar historical studies—they simply do not exist.

Although the volume does not attempt to be comprehensive, it covers a wide range of Internet technologies and then looks at the effects some of these had on particular sectors. The introduction and early chapters, which examine the histories of the technologies, serve as preparatory reading for the rest of the book, which investigates the affected businesses. Thus, readers who are not familiar with Internet technology and terminology are advised not to jump in directly, but rather to visit the first chapter, Ceruzzi's part history, part tutorial on several important—but seldom discussed—developments that enabled mass private-sector use of the Internet. Gently introduced here are the technologies one must basically understand in order to study the Internet in a meaningful way. These include the building of transcontinental data channels, the growth of Internet service providers (ISPs), and the emergence of means to govern the Internet, namely, the Internet Corporation for Assigned Names and Numbers (ICANN).

Other introductory chapters, bundled under the heading "Internet Technologies Seeking a Business Model," provide a more detailed picture of the Internet's development. They explore the many approaches taken to selling Internet access, the development of e-mail and search engines, and the changing fortunes of the utility model of computer access and software distribution. Together, these chapters show how the Internet grew so quickly (though neither steadily nor uniformly) to reach millions, and the large degree to which the forms of commercial aspects of the Internet were contingent on social, political, and economic circumstances.

Equipped with knowledge of the provenance and mechanics of the commercialized Internet, the reader is then prepared to reap the insights offered in the remainder of the book, where the effects of the Internet on business are examined. Here, the chapters are organized rather arbitrarily, and few connections are made between the contributions within sections. Nevertheless, given the range of material covered, business historians will likely find at least a few chapters pertinent to their work. A number of areas were explored, such as the following: Why were brick-and-mortar retailers so slow to adopt e-commerce? What changes did dot-com start-ups bring to retail? What was the rationale behind, and what were the effects of, the "get big fast" development strategy of prominent Internet businesses like Amazon? What

struggles did traditional media companies (e.g., newspapers, broadcasters) undergo in trying to appropriate a new medium and to conform to an emerging digital culture? How did the spread of the Internet undermine middlemen (e.g., computer retail shops) and service providers (e.g., travel agencies) by enabling consumers to interact directly with producers? Why was there counterintuitive resistance to some Internet technologies by tech-savvy users like university professors and physicians? What new ways of working were made possible by the Internet? What were the effects of file sharing on the music industry? How did the Internet transform the adult entertainment industry? (This last contribution provides an excellent overview of the historiographical challenges associated with investigating any online business.) What was the influence on the market of Internet communities like Slashdot, You-Tube, and MySpace?

The contributors' efforts to address these points are generally informative, precise, and backed by reliable data. Examinations of the 1990s and earlier tend to be better grounded in verifiable sources than the very recent histories. Indeed, a few of the URLs cited in this volume are already obsolete, leading me to wonder how useful the endnotes will be in five or ten years. If the publishers commit to updating the book's references periodically, then this book could remain relevant for a long time to come.

For all the strengths of this collection, some crucial areas are neglected. For instance, biotechnology and gaming, each a multibillion-dollar industry hugely influenced by the Internet, are almost completely absent from any of the contributors' analyses, even though these two areas offer many examples that would have both strengthened and complicated the claims made in this book. Another overlooked topic is that of small or individually run businesses. Though several contributors acknowledge that such enterprises generally do not receive attention proportionate to their role in the economy, most of the analyses here focus on large corporations.

Whether taken together or individually, the components of *The Internet and American Business* go a long way toward demystifying the Internet's growth and its effects on private enterprise. Given the Internet's protean nature and ever-increasing importance, this volume should, above all, be regarded not as a definitive last word, but rather as the early beginning of a worthy effort.

Joseph November is assistant professor in the Department of History at the University of South Carolina.

.   .   .