The Convenience Store Revolution: Computer Networks, Logistics, and the Reinvention of Retail in Japan

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Convenience stores in their current, most globally popular form were born in the US, reinvented in Japan, and re-exported to or reinvented in large parts of Asia and the world. No company better illustrates this transnational trajectory than 7-Eleven. Founded in the US in 1927 by Southland Corporation, the store concept was licensed to Japanese retailer Ito-Yokado in 1973. From the 1970s to 80s 7-Eleven's operations were essentially reinvented through a combination of the introduction of fresh foods, the logistical innovation, the introduction of novel networked information systems that allowed information gathering and new ordering systems, and rapid if geographically selective expansion through Japan (Marutschke, 2011; Whitelaw, 2018). 7-Eleven Japan’s success led it to buy out Southland Corporation in 1991 when it was in financial difficulties, leading the Japanese company to subsequently expand rapidly throughout Asia and reconfigure its existing stores in the US – in the Japanese model.

This history of convenience stores may seem far removed from the interrogation of Internet revolutions this conference asks us to engage. And yet, as I'll argue in this presentation, the Japanese convenience store offers the best site to rethink histories of networked computing and the “revolution” of the Internet in a non-Western context – furthering the project of “de-Westernizing” or regionalizing Internet studies (Davis and Xiao, 2021; Steinberg and Li, 2017). Retail is in fact crucial to developments in surveillance and accounts of networked media. As Joseph Turow (Turow, 2017) points out in his work, networked computing and surveillance are as much a part of retail history as of Internet history. Jesse LeCavalier (LeCavalier, 2016) similarly charts the humble life of the barcode as a source of information gathering and Walmart as an innovator in information technology in his account of the company.

In this paper, I turn my attention to another humble, often-overlooked, yet crucial site for thinking critically, historically, and globally about the discourse of Internet revolutions: the franchised convenience store. Three reasons drive this turn and will form the structure of my paper. First, recent discussions of the commercial internet figure...

convenience as a key reason for the uptake of services from Amazon to Netflix to Apple Pay, to name just a few (Lotz, 2017; West, 2022), or for what Draper and Turow (Draper N.A. and Turow J., 2019) aptly term the “digital resignation” to the tradeoff of privacy for convenient services. Convenience is hence a key term that needs to be critiqued and rethought from within Internet studies – and more generally (Berlant, 2022; Neves and Steinberg, 2020). The Convenience Revolution (Hyken, 2018) – as one recent business tome symptomatically sums up this line of discourse – is intimately bound up with the commercial internet. Yet convenience as a keyword, a value, a discourse, and a series of practices stretches back much farther than the advent of the Internet (Shove, 2003; Tierney, 1993). The Japanese iteration of the convenience store offers one place to trace this logistically-supported, pre- and post-Internet iteration of convenience.

Second, the convenience of the Japanese convenience store is intimately bound up with various movements in the information revolution that tell a different story of the Internet itself – and hence offer a crucial site for Internet research. Computer networks were a major part of business operations long before the Internet, with protocols like Electronic Data Interchange (EDI) powering 7-Eleven Japan’s computer systems and point-of-service terminals before the Internet’s spread, and eventually coexisting with it. Focusing on this parallel industrial history of the Internet allows us to tell a rather different story about networked computing that challenges the common narratives of a fall-from-grace that is the commercialization of the Internet. The Japanese convenience store’s early adoption of information technologies and logistical management, particularly in the 1980s, tells a different, longer story of networked (and subsequently Internet-based) “revolutions” happening within industrial contexts. That 7-Eleven in the late 1990s saw itself as a competitor to e-commerce giants like Amazon or Rakuten via a “clicks-and-mortar” strategy is only one example of this. Even before this time, the number of Japanese books on 7-Eleven’s information strategies bearing the keyword revolution in the title is notable, and reach back to the mid-1980s. To name just a few examples we have: 7-Eleven’s POS Revolution: The Challenges of Information Individualization (Kunitomo, 1986); The Logistical Information Revolution of Ito-Yokado’s 7-Eleven (Ogata, 1991); 7-Eleven’s Information Revolution (Kunitomo, 1993). That these revolutionary developments are firmly linked to corporate strategies of information gathering and order management offer a different angle onto the history of the networked (or Internet) revolution.

Third, engaging these developments more carefully in the context of Japan’s reinvention of the American convenience store allows me to tell a more global, if provisionally nationally anchored, history of networked computing as well as a longer account of the rise of convenience as a crucial, internet-enabled virtue. Building on previous work on the Japanese commercial Internet and its industry underpinnings (Steinberg, 2019, 2022), on other work on computing and its revolutionary fantasies in the East Asian context (Liu, 2019; Wu, 2022), and on the longer project of internationalizing internet studies (Chan, 2013; Goggin and McEland, 2009; Peters, 2016) is still underway, this paper hopes to expand the objects of Internet studies. Complementing Turow (2017), this paper treats retail as a crucial site from which to think the history of networked computing and the Internet.
This paper in its three-pronged approach is based on extensive primary archival research into (1) the discursive framing and historical introduction of the convenience store in 1970s Japan (government manuals; newspaper reports; early books introducing the convenience store); and (2) contemporaneous accounts of its subsequent transformation in the 1980s and 1990s via networked computing, including the books mentioned above. Synthesizing this research, this paper will propose we see the “Internet revolution” through the lens of information-based transformations to retail that precede and then proceed alongside the expansion of the Internet and networked computing. In doing so it will chart the longer history of computing in retail environments, internationalizing both Internet research and retail research, which, outside of crucial attention to Alibaba (Zhang, 2020, 2023), and has focused mostly on the North American context or on Amazon in other contexts (Delfanti, 2021).

Though Amazon is the frequent focus of retail analysis today, the convenience store in Japan was at the center of many of the innovations of e-commerce, data-gathering, and logistics over the years; it is presently the site of pitched battles over digital payment services. Charting some of this longer network history and Internet history leading to the present is another aim of this paper. Expanding Internet history – and continuing the project of de-centering and de-Westernizing Internet studies – is a final component of this research. In this context Internet studies outside the West doesn’t offer alternative practices to the corporatization of the Internet but another angle onto and crucial site from which to understand the ongoing datafication of everyday life and expansion of what Halpern and Michell (Halpern and Mitchell, 2023) term the smartness mandate – an imperative to solve all of our problems by recourse to computer networks. This angle and site is the complicated, transnational, logistically-enabled, franchised convenience store, with a particular focus on the Japanese reinvention of 7-Eleven.

References


