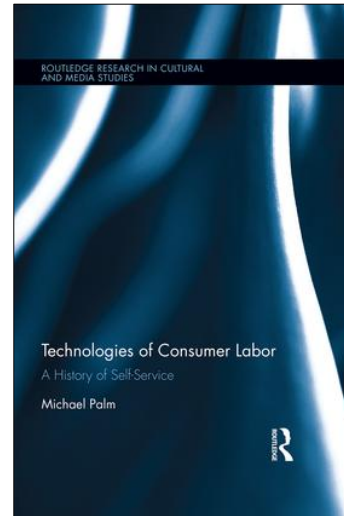


Michael Palm, **Technologies of Consumer Labor: A History of Self-Service**, New York, NY: Routledge, 2017, 174 pp., \$49.95 (paperback).

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There is a booming market for self-service technologies such as vending machines and automated teller machines (ATMs). Globally, BCC Research (2016) projected that the market for self-service technologies would increase from \$54.4 billion in 2016 to \$83.5 billion by 2021. Indeed, it is common for people to use self-checkout kiosks in stores and ATMs to withdraw cash from their bank accounts. The notion and practice of self-service seemingly become taken for granted as parts of our everyday life. Against this backdrop, Michael Palm probes into the naturalization of self-service and its impacts on consumers' interactions with everyday technology in his book **Technologies of Consumer Labor: A History of Self-Service**.



Drawing on archival materials, corporate promotional materials, policy documents, and legal cases, Palm presents a telling historical account of how telephony and its keypad interface have inculcated the idea of self-service in American consumer culture from the twentieth century to today. The concept of consumer labor, explains Palm, “does not indicate that all consumption has become potentially productive; rather, it specifically refers to those tasks, activities, and responsibilities that have been historically reassigned from employees to consumers” (p. 7). Self-service is considered assemblages of consumer labor technologies. Palm—citing Jennifer Daryl Slack and John Macgregor Wise’s conceptualization of technological assemblage as being consisted of “practices, representations, experiences, and affects [that] take a particular dynamic form with broader cultural consequences” (p. 5)—aims to examine “how the naturalization of self-service over the phone shaped consumers’ attitudes and expectations about interacting with digital technology” (p. 1).

Specifically, the book examines four historically interrelated assemblages: self-service shopping, the dial, the keypad, and the touch screen. An underlying assumption of the analysis is “that technology has saturated contemporary living, in the process redefining the human experience of everyday tasks and routines” (p. 10). The case of self-service shopping initiated the first wave of this innovation, which cultivated consumers’ attitudes toward self-service in a broader sense. The latter three cases examine the technological uses and cultural discourses around evolving telephone interfaces. Palm focuses on the telephone, in part because it was the first everyday self-service technology used at home. Taken together, these cases challenge the normalization of consumers’ expectations about self-service telephony and question the underlying discourses about self-service activities.

The history of self-service, Palm argues, can be dated back to self-service shopping inside brick-and-mortar stores. Hence, chapter 1 examines how the first self-service assemblages—grocery stores

and supermarkets (p. 27)—became naturalized in the twentieth century. Self-service shopping emerged in the context of mass production and consumption during the Great Depression. Although there were forerunners (e.g., mail order shopping and vending machines), self-service shopping was a novel idea for consumers at the time. The merchants had to persuade shoppers that they should create services for themselves rather than being served by clerks at stores. As Palm puts this, “Self-service shopping was a new assemblage requiring new architecture, new customs, and a new mindset among consumers” (p. 32). The merchants enticed consumers with a promise that self-service shopping would empower them to enjoy more autonomy, freedom, and privacy. Alongside the discursive construction of self-service shopping, the assemblage entailed new technological approaches (e.g., the introduction of cash registers) as well as new spatial (e.g., the rise of supermarkets), managerial (e.g., the deskilling of clerks), and legal arrangements (e.g., the redefinition of the legal responsibilities of buyers and sellers). Despite some initial resistance, the emergence of self-service shopping arguably led most consumers to expect self-service and prepared them for the later technologies of consumer labor.

Chapters 2 through 4 correspond to the three formative periods of the technological transformation in the telecommunication industry, namely automation (chapter 2), digitization (chapter 3), and computerization (chapter 4). In chapter 2, Palm documents callers’ experiences of telephone automation during the formative era of dialing. A key focus of this chapter is the promotional and marketing materials of the American Bell Telephone Company (later AT&T), a company that dominated the telephone industry. While many independent companies promoted automatic systems in the early stage of technological development, the Bell Company marketed its manual system as a luxury service. The company devoted resources to train its operators to not only connect calls but also offer personalized services to telephone subscribers. It promoted rotary dialing until after World War I. The adoption of dialing required callers to take responsibility to connect their own calls. The marketing campaign thus framed dialing as a way to make phone calls in a speedy and efficient manner. Despite the redistribution of daily tasks from operators to consumers, the dialing was considered “an improvement, rather than a reduction” (p. 61) in the company’s telephone service. Additionally, the automation of telephone services translated telephone exchange names into all-digit telephone numbers.

Chapter 3 examines the stabilization of telephone touch-tone keypads as routine from the 1960s to the 1990s. AT&T invented and developed the telephone keypad in the 1960s, but consumers remained accustomed to using the rotary dial. The touch-tone keypad emerged as a popular form of telephone interface in the 1980s, in part because of the government’s endeavor to divest AT&T’s monopoly on telephone services. As Palm contends, “divesting AT&T’s monopoly did not simply deregulate the telephone industry; it created a new commercial landscape in which law and policies would have to be created to police consumers’ telephone practices” (p. 110). For example, most people had leased telephones from AT&T before divestiture, but the reformed policies led consumers to begin purchasing and maintaining their own telephones. Palm found that about 60% of residential telephones were touch-tones by 1986. Consumers were also encouraged to purchase touch-tone phones. AT&T’s divestiture, meanwhile, opened up the competition for long-distance telephone services and automated information services (e.g., weather reports). In addition to entering a telephone number, people started to input letters, numbers, and other symbols (i.e., * and #) to access digitized information via automated service

menus (e.g., "Press 1 for English"). Consumers also came to expect to use keypads to perform informational tasks and other self-service activities.

Chapter 4 documents how the telephone keypad was adopted as the interface of ATMs during the 1990s. Indeed, the assemblages of self-service shopping and telephony formed the discursive and technological basis for the swift adoption of ATMs. For example, people became accustomed to the practices of self-service in supermarkets and other retail spaces. Akin to the history of telephone numbers, banks introduced checking account numbers to standardize individual identification. The emergence of ATM cards and PINs minimized consumers' effort to memorize the lengthy account numbers. Due to the naturalization of the telephone keypad, Palm notes that "once banks began designing ATMs, there was virtually no (documented) discussion or internal debate among designers about how to arrange the keypad" (p. 133). The telephone keypad was the default. Consumers also felt comfortable with using ATMs to manage their bank accounts and complete transactions on their own. A notable aspect of the ATM assemblage is the ATM surcharge. With the introduction of surcharges, ATMs helped banks not only to reduce the cost of labor but also to generate revenue. At the same time, consumers had to pay to use the consumer technology (i.e., ATMs) to serve themselves.

In the conclusion, Palm goes further to discuss how smartphones may instill new practices and expectations among consumers. Consumers have widely used touchscreen smartphones since Apple introduced the first iPhone in 2007. With the advent of mobile payment applications, it becomes more common for people to swipe at their smartphone touchscreen to transfer digital data and complete financial transactions. Smartphones are thus arguably considered "a kiosk in every pocket" (p. 158). The development of Apple Pay seems to foster a new formative period for the telephone interface. Palm probes, "As smart phones continue to replace debit cards, PIN, and readers as payment technology, what new tasks, responsibilities, and liabilities can we expect consumers to assume along the way?" (p. 162). In other words, we should consider how smartphones, as an emerging technological assemblage, may remediate consumers' routine tasks and interactions with digital technologies.

Overall, *Technologies of Consumer Labor* presents a compelling account of how telephony became stabilized as the technologies of consumer labor to normalize the practice of self-service. This understanding is especially important at the present juncture, wherein the assemblage of smartphones increasingly works in tandem with other emerging technologies (e.g., facial recognition systems) to enlist consumers to perform the tasks that were previously executed by workers in retail spaces (Levy & Barocas, 2018). Perhaps predictably, corporations frame such activities as a boon to their consumers with upbeat assurances of autonomy, productivity, or efficiency, though there are concerns over users' privacy at the same time. Indeed, Palm succinctly acknowledges the ubiquitous corporate control of self-service telephony in the concluding chapter, but it may be worthwhile to explicate further how an understanding of the history of self-service can help us to responsibly manage the current wave of technological transformation. Apart from that, this book critically assesses the cultural history of telephony with an emphasis on consumers' experiences. It also tellingly brings the historical analysis to bear on current technological design and practice. The book is particularly insightful for those who are interested in the impact of everyday technology on the boundaries between consumption and work.

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