THE OVERWORKED CONSUMER

SELF-CHECKOUTS, SUPERMARKETS, AND THE DO-IT-YOURSELF ECONOMY

CHRISTOPHER K. ANDREWS

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To Tracy

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Preface

I titled this book *The Overworked Consumer*, at least in part, as response to Juliet B. Schor's books *The Overworked American* and *The Overspent American,* suggesting that if Americans were overworked and overspent perhaps they were also increasingly becoming overworked as unpaid consumers performing self-service. The unpaid work I began to notice in supermarkets and other industries seemed ironic, if not downright cruel, given that millions of Americans were unemployed and desperate for paid work. As the country was entering the greatest recession in nearly a century, businesses across the country were finding new ways of outsourcing paid work to unpaid consumers in the form of self-service.

Although the practice was over a century old—many trace it back to Clarence Saunders's first self-service grocery store, the Piggly Wiggly—twenty-first-century advances in automation, digital technology, and the Internet made it possible to expand the scale and range of self-service to the point where it began to seem ubiquitous, much the same way George Ritzer described the expansion of McDonaldization in his book *The McDonaldization of Society*.

While the expansion of self-service offers an array of new possibilities and opportunities for businesses and consumers, I hope that readers will take a moment to consider whether it has measurably improved the price or quality of the goods and services they purchase or their overall lifestyle. After all, until Amazon or Walmart effectively controls the retail industry, consumers will be able to vote with their pocketbooks, deciding whether self-checkout lanes and similar technologies are simply a passing fad or in fact the future of retail. *Caveat emptor*.

Acknowledgments

As John F. Kennedy once said, "victory has a hundred fathers but defeat is an orphan," suggesting that credit for this book deserves to be shared with those who supported it from the very beginning. Starting at the University of Maryland, College Park, I would like to thank Bart Landry and George Ritzer whose graduate courses on consumption, sociology, and the "new economy" inspired me to think about supermarkets, shopping, and self-checkout lanes in ways I hadn't previously considered. I would also like to thank the customers and employees of SuperFood, without whom this project would not have been possible. I owe a special debt of gratitude to the individual store managers—Barry, Rick, Peter, Sam, Carl, and Michelle—who vouched for and provided me with access to their respective stores.

I would also like to thank my colleagues at Drew University including Scott Bonn, Roxanne Friedenfels, Caitlin Killian, Kesha Moore, Jonathan Reader, and Susan Rakosi Rosenbloom, several of whom read and commented on previous versions of this manuscript. Loren Kleinman graciously read and commented on several chapters and provided valuable input as both a reader and general audience. Special thanks to Laurel Graham who provided detailed comments and helpful suggestions on drafts of each chapter. Thanks also to Jerry Davis who graciously allowed me to reproduce a table from his book *The Vanishing American Corporation*. I am especially grateful to my editors at Lexington Books, starting with Brighid Stone who bravely adopted this project, Sarah Craig who shepherded it along, and Courtney Morales who saw it through the final stages to publication.

Finally, I would like to thank my friends and family whose love and support sustained me throughout the project. This project spanned several years and required a great deal of time and energy. I must extend a special thanks to Carolyn and Brian Burns, who on several occasions invited me to stay with their family at their summer cottage; it provided a welcome change of scenery and much needed respite. I would also like to thank my family for putting up with the pile of papers that frequently accompanied me on holidays. Most of all, I owe a special debt of gratitude to my wife Tracy, who had the patience and grace to put up with me throughout the entire process and who continues to be a source of love and inspiration.

Chapter 1

Self-Service and the Do-It-Yourself Economy

In their never-ending quest to further cut costs and boost profit margins, businesses in today's service economy are increasingly turning to self-service. Described as "the ultimate in outsourcing," *self-service* describes the substitution of paid or wage labor with the unpaid labor of consumers.[1] By replacing the labor of workers with consumers', businesses are using self-service to slash labor costs and reduce overhead. Stated simply, "self-service appeals to companies for an obvious reason: it saves money."[2]

Self-service itself, however, is by no means new. Vending machines, for example, were initially developed in the 1880s for dispensing postcards; today, there are more than 6.9 million vending machines in the United States dispensing everything from soft drinks and snacks to birth control and marijuana.[3] The success of vending machines, in turn, led to the development of automatic restaurants, or automats, modest restaurants comprised of a series of vending machines that served both hot and cold foods. Diners inserted coins into a machine and then opened a window to remove an item, while staff replenished purchased items from a kitchen (see Figure 1.1).

Cafeterias—the first self-service restaurants—also began to appear in the late nineteenth century. For example, American entrepreneur John Kruger built a version of the Swedish smörgåsbords he had seen while traveling for the 1893 Chicago World's Fair, dubbing it "cafeteria," Spanish for coffee shop or buffet. Later, Childs Restaurant, a chain of cafeterias in the United States and Canada, added the use of trays and the tray line, turning the cafeteria into a sort of self-service assembly line of food choices.[4]

Automats and cafeterias were replaced by yet another innovation in self-service—fast-food restaurants—that beckoned consumers to do even more of the work by taking on the roles of chef, server, and busboy. Chains such as McDonalds, Roy Rogers, Burger King, Wendy's, and Taco Bell invite diners

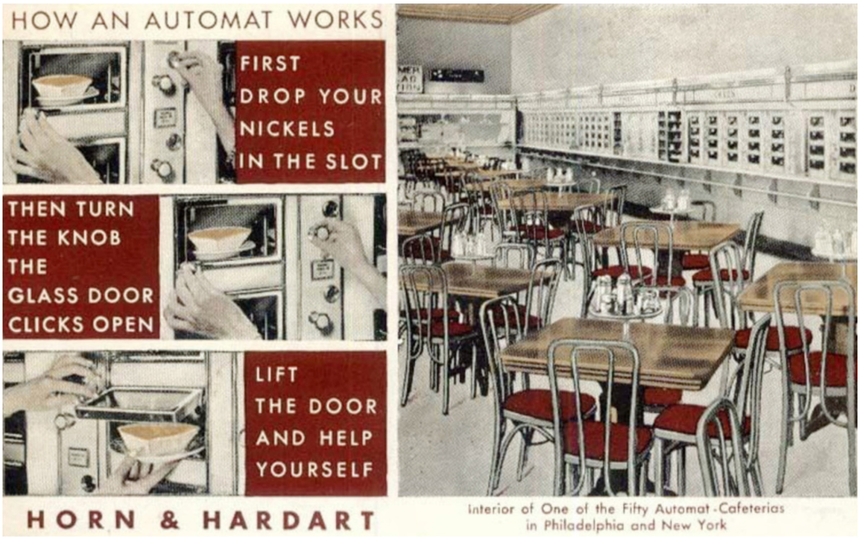

Figure 1.1 A Horn & Hardart Postcard Explaining How Food Was Served in an Automat (c. 1930s).

to fill their own drinks, add condiments, or assemble their meals from a salad bar and then carry their items on a plastic tray or basket to a dining table or booth. Once finished, customers are expected to deposit their waste in trash receptacles and return plastic trays or baskets. Today, fast-food chains such as Wendy's and McDonalds are even experimenting with technology that allows customers to enter their orders using a digital self-service kiosk, increasing the scope of self-service in an industry that employs over two and a half million people.[5]

Those who opt to eat at home may be more familiar with yet another self-service innovation: supermarkets. Patented in 1917, Clarence Saunders opened the first "self-serving store" in Memphis, Tennessee, offering lower prices on goods to customers who were willing to select items from arranged displays and carry their items in a basket to the cashier for payment (see Figure 1.2).[6] Since then, supermarkets have added further dimensions of self-service including scales for customers to weigh produce, shopping carts for customers to carry items throughout the store and to their cars, and more recently, self-checkout lanes and digital scanners that allow customers to do the work of cashiers as they scan and bag their own groceries.

Self-service has also spread far beyond the retail food to the banking, transportation, and health care industries, just to name a few. Banks, for example, invite customers to perform the work of a bank teller through the use of automated teller machines or ATMs; first introduced in the 1960s, today

Figure 1.2 The First Self-Service Grocery Store, Piggly Wiggly, Opened in 1916 in Memphis, Tennessee.

there are an estimated three million ATMs worldwide.[7] Many Americans are also increasingly taking over the role of financial investors through Internet software platforms developed by companies such as E-Trade and Scottrade; today, about a quarter of all U.S. adults with Internet access are retail online traders, with a total U.S. individual trading population of 54 million.[8]

Travelers are also increasingly encountering self-service. While the first self-service gas station opened in 1947 in Los Angeles, California, today there are more than 150,000 self-service stations across the U.S., with only two states—Oregon and New Jersey—that ban self-service gas stations by law.[9] Self-service technology has also spread from the road to the air, with airlines adopting self-service check-in and ticketing services. According to the International Air Transport Association, 71 percent of airline passengers checked in online or used a mobile boarding pass in 2016; by 2020 it expects 80 percent of airline passengers worldwide will have access to self-service options.[10] Meanwhile, popular websites such as Travelocity, Hotwire, and Expedia invite customers to be their own travel agents, arranging and booking airline, car rental, and hotel reservations.

Self-service has even spread to the U.S. health care industry. During the 1980s, Congress passed a series of legislative acts designed to reduce health care costs, including the Tax Equity and Fiscal Responsibility Act of 1982.

This legislation replaced the existing fee-for-service system with a diagnosis-related group (DRG) system in which flat fees were assigned to more than 467 diagnoses. Because the DRG system meant hospitals received the same fee regardless of patient use, hospitals were incentivized to shorten hospital stays; the sooner patients were discharged, the more money hospitals could keep.[11] While the health care industry saved an estimated $10 billion, it also effectively transferred health care work on to American families; according to a recent study by the National Alliance for Caregiving and AARP, an estimated 43.5 million adults in the United States provided unpaid care to an adult or a child during the previous year, saving hospitals and insurance companies an estimated $470 dollars.[12] More recently, companies such as WebMD have developed online programs that allow customers to self-diagnose using a symptom checklist, while hospitals and health care clinics have begun introducing self-service kiosks that allow patients to enter their personal information, insurance, and medical history; according to a study undertaken by the Pittsburgh VA Medical Center, the healthcare kiosk market is expected to reach $800 million.[13]

Other examples of self-service include do-it-yourself tax preparation (e.g., TurboTax)[14] and legal services (e.g., LegalZoom),[15] self-service human resources (e.g., Workday),[16] self-checkout at public libraries,[17] self-check-in kiosks at hotels (e.g., Hyatt),[18] self-service DVD rentals (e.g., Redbox),[19] self-ticketing kiosks at movie theaters (e.g., Cinemark),[20] self-service car washes (e.g., Champion Car Wash),[21] self-service Laundromats,[22] self-service postage services (e.g., Stamps.com),[23] self-service printing (e.g., FedEx),[24] self-service key duplication (e.g., minuteKEY),[25] self-service car rentals (e.g., Hertz),[26] self-service moving (U-Haul),[27] self-service storage (e.g., PODS),[28] self-service dog washes,[29] self-service junk yards,[30] and self-service farms—also called U-pick or pick-your-own (PYO) farms—that invite customers to pick their own vegetables straight from the fields.[31] In fact, it's hard to think of an industry that hasn't adopted some form of self-service.

THE OVERWORKED AMERICAN

Given the aforementioned explosion of self-service, perhaps it is no wonder Americans report feeling overworked.[32] In her bestselling book *The Overworked American*, sociologist Juliet Schor documented a steady increase in working hours over a twenty year period, finding that that the average working American was working an additional 163 hours, or roughly an extra month per year; moreover, she found this general trend of increasing work hours extended across income categories (e.g., low, middle, high), work schedules (e.g., part-time, full-time) and family types (e.g., married, single).[33]

Yet, while working hours have since leveled off and remained relatively stable, today the average American works approximately 258 more hours per year compared to the average European, a difference that comes out to roughly an extra hour of work per day.[34] However, while Schor observed a marked increase in work hours, other scholars' examining time use patterns paradoxically found that the average number of hours of leisure or free time among Americans had steadily increased over the same period.[35] How could this be?

While some of this has been attributed to the use of different datasets and a growing bifurcation of work time (e.g., increase in number of jobs with shorter or longer hours), I argue that some of it might also be a product of how we measure and spend our leisure time.[36] For example, Americans have plowed most of those hours of free time gained back into viewing television; researchers estimate that the average American now watches roughly 4 to 5 hours of television per day, a viewership rate higher than almost any other country.[37] Accordingly, even though Americans may have more free time than ever before, it might not feel like it given how much time we spend watching television, and increasingly, streaming and on-demand media. How much time? According to Netflix, the average viewer streamed 568 hours of programming in 2015, up from 505 hours in 2014, while in 2017 YouTube reported that users were now viewing at least a billion hours of YouTube per day.[38] Today, the average adult spends an estimated 12 hours consuming media, averaging nearly 4 hours of television per day and 5.5 hours spent online or using mobile devices.[39] Even though some of this can be explained by multitasking—consumers who spend an hour watching TV while multitasking on a tablet or smartphone are counted as spending an hour with TV and an additional hour on a mobile device—it still suggests Americans are spending a significant amount of time consuming media. Moreover, while multitasking may allow Americans to expand their consumption of media, it may also make doing so seem more work-like as we juggle to consume media from an increasing number of sources; according to time use scholars John Robinson and Geoffrey Godbey, Americans' perception of "time famine" stems from the phenomenon of "time deepening" in which we attempt to engage in more activities and experiences simultaneously and more quickly, resulting in stress instead of relaxation.[40]

Another reason for perceptions of overwork may be suburban sprawl and the lengthening of daily commutes. While driving remains the dominant mode of transportation among working Americans, between 1983 and 2009, the average distance of daily commutes to work increased by 37 percent, while the average time spent commuting to work increased by 30 percent.[41] Meanwhile, between 1969 and 2009 the number of workers commuting to work nearly doubled, resulting in commuters spending an average of approximately 42 hours—essentially a full work week—per year stuck in traffic.[42]

Increasing time pressures among certain types of workers and families may also be contributing to perceptions of overwork. For example, people in dual-earner households with children and single-parent households are more likely to report feeling greater time pressures than those in households with a traditional family structure comprised of a breadwinner, children, and a stay at home parent.[43] Time pressures also tend to be greater among college-educated professionals and managers because they tend to average the longest work weeks compared to other workers.[44] In short, even though Americans have more leisure time than they did in previous decades, it might not feel like it since a considerable portion is spent watching TV, doing housework, or stuck in traffic.

In her 2015 book *Pressed For Time*, Judy Wacjman describes this incongruity between the amount of leisure time available and the sense of hurriedness the *time-pressure paradox*, pointing to the ways in which the intensification of work and the "cult of speed" offered by information and communication technology have contributed to this sense of time poverty.[45] Citing the ever-increasing number of emails and constant connectivity via the Internet, mobile phones, and social media, she describes how these technologies accelerate time, increase interruptions, invite multitasking, and erode conventional boundaries between work and leisure.

THE SECOND SHIFT, SHADOW WORK, AND MIDDLE-CLASS SERFDOM

Yet, perhaps the biggest reason Americans feel overworked is because of the increase in self-service and unpaid work. Like self-service, unpaid work is not an entirely new aspect of the American economy; the unpaid work of slaves, for example, was essential to the plantation economy of the antebellum South, while approximately half of European immigrants to the Thirteen Colonies were indentured servants.[46] More contemporary examples include penal labor, for which prisoners are paid as little as $0.16 an hour, news media outlets that offer freelance writers "exposure" instead of money for articles, and unpaid internships which save American businesses an estimated $600 million.[47]

Another major source of unpaid work are families. In *The Second Shift*, Arlie Hochschild notes that part of the reason working women feel overworked is precisely because many of them are expected to perform a "second shift" of unpaid domestic work after they return home from their paid jobs, making dinner, washing dishes, doing laundry, and driving the children to soccer practice.[48] National time use studies reveal that women, on average, perform roughly 15 more hours of domestic work per week than men; over the course of 52 weeks, this translates into approximately 780 hours, or an entire month of unpaid work.[49] And while men today may be contributing more in terms of housework, women still perform a majority of the housework, shopping, and childcare.[50]

Yet, another major source of unpaid work clearly seems to be organizational restructuring, and in particular, the use of self-service. In her pioneering study of self-service in the retail and health care industries, Nona Glazer noted the ways in which those industries adopted policies and practices that effectively transferred tasks from paid women workers to unpaid women and family members. Supermarkets, for example, found ways to save labor costs by creating the "clerkless customer" through the use of self-service supermarkets like Saunders's Piggly Wiggly, transferring the work of salesclerks, delivery persons, and other staff to female shoppers.[51] Similarly, she describes how healthcare reform in the 1970s and 1980s significantly reduced hospital visits and associated medical costs by assigning flat fees to medical diagnoses, incentivizing hospitals to reduce the length of hospital stays, and shifting the burden of caregiving onto women and families.[52] Glazer called this shifting of tasks from paid to unpaid work the "work transfer," arguing that these changes in the workplace reflected efforts by businesses to further reduce labor costs and increase profit margins.[53] Accordingly, as self-service has expanded throughout the U.S. economy, all kinds of unpaid work has effectively been transferred onto Americans and their families.

The result, described by Craig Lambert in his eponymously titled book, is the growth of unpaid "shadow work," as Americans are increasingly socialized to perform unpaid work for businesses and organizations, pumping their own gas, scanning and bagging their own groceries, and assembling their own furniture.[54] Coined thirty years ago by the Austrian philosopher and social critic Ivan Illich, *shadow work* describes the unpaid work that occurs in the margins or shadows of the wage economy.[55] While Illich focused on more traditional forms of self-service work in education and housework, Lambert argues that new innovations in technology have allowed shadow work to further expand into new spaces and territories of the economy, with businesses further cutting costs and increasing profits by offloading work onto customers in the guise of self-service:

> Over the last five years, more and more of us have taken on what was once other people's work. Chances are you clean your own windshield and . . . pump your own gas, and pay for it without hearing a "May I help you?" or "Thank you." You're doing a bank teller's job at the ATM. Many companies make you the operator as you wend your way through their automated phone trees. You're

cashier and bagger at the grocery store, the big-box hardware store and, now, some drugstores and fast-food restaurants.[56]

Similar to the way in which medieval feudal lords required serfs to perform unpaid work in exchange for the right to farm certain fields for their own subsistence, Lambert describes this growth of self-service and shadow work as resulting in a modern "middle-class serfdom" in which customers are compelled to perform unpaid labor in order to enjoy access to goods and services. Consequently, although Americans may be devoting a significant portion of their leisure time to watching television, feelings of overwork may be attributable to self-service and the increasing unpaid tasks that occupy whatever little free time we have left.

REVERSED WORLDS: WHEN HOME BECOMES WORK

In her subsequent book *The Time Bind*, Arlie Hochschild described how home and work had increasingly become "reversed worlds," as the workplace became a haven for working mothers seeking to escape the time pressures and expectations to perform unpaid work at home.[57] Today, however, it seems that home is becoming more like work as businesses increasingly expect Americans to do more unpaid work during their free time, further blurring the boundaries between home and work, and paid and unpaid labor. Perhaps even worse, American consumers are being asked to "labor in" during a period of polarizing economic growth, as the rewards of record highs in productivity and stock market gains have been enjoyed by a small minority with the average American worker facing stagnant or declining wages.[58]

Yet, while one set of critics is decrying the expanding second shift of unpaid work represented by self-service, another group is simultaneously sounding the alarm over potential job loss resulting from self-service, and in particular the automated technologies that increasingly allow businesses to transfer work onto consumers.

SELF-SERVICE + AUTOMATION = THE END OF WORK?

Concerns regarding self-service, technology, and jobs date back to the early twentieth century when a national debate emerged regarding the possible effects of automation on employment. The "great automation debate" questioned whether new technologies would undermine the fundamental relationship between income and work by displacing workers and reducing businesses' need for labor.[59] Fearing a future of factories without employees, unions worried that automation would destroy millions of jobs in manufacturing, while others wondered whether the growing trend of self-service and automation in restaurants and retail stores would eliminate the need for cashiers and sales clerks.[60] Advocates, however, pointed to continued growth in employment suggesting that self-service did not eliminate jobs, while a Presidential Commission concluded that "technology eliminated jobs, not work."[61]

Today, however, similar concerns are being put forward regarding whether new innovations in technology will eliminate jobs, resulting in mass unemployment and the "end of work."[62] For example, a recent study estimates that nearly half of U.S. jobs are "at risk" of being automated, many of which are in the service industry.[63] Similarly, an international study cites a "global decline of labor," attributing roughly half of the decline in investment in labor to the replacement of workers with computers and other forms of information technology.[64] Accordingly, views that were once dismissed as neo-Luddite have gained new traction; for example, in a recent national survey of experts on technology and automation, a majority of respondents indicated that "networked, automated, artificial intelligence applications and robotic devices [will] have displaced more jobs than they have created by 2025."[65]

Technology itself, however, is not the only potential threat to American jobs; consumers' *willingness* to perform unpaid labor is what allows businesses to replace paid workers with unpaid consumers. And with more American consumers clocking in to a second shift of unpaid work via self-service, American corporations are shrinking in size.

PUTTING CUSTOMERS TO WORK

In his bestselling book *The McDonaldization of Society*, George Ritzer described how McDonald's use of technology and routinization simplified and standardized the production of fast food, helping the fast-food chain to create a uniform product and streamline labor costs. Yet, it was the unpaid work performed by customers that allowed chains like McDonald's to operate with a relatively small staff; fast-food (or "limited service") restaurants employ approximately half as many workers per establishment compared to full-service restaurants.[66] How do they do this? By "putting customers to work":

> The salad bar is a classic example of putting the customer to work. The customer "buys" an empty plate and then ambles over to the salad bar to load up on the array of vegetables and other foods available. . . . The salad lover can now work as a salad chef. . . . In a number of fast-food restaurants, including Fuddruckers

> and Roy Rogers, consumers are expected to take a naked burger to the "fixin' bar" to add such things as lettuce, tomatoes, onions, and so on. The customers thus end logging a few minutes each week as sandwich makers. At Burger King and most other fast-food franchises, people must fill their own cups with ice and soft drinks, thereby spending a few moments as "soda jerks." Similarly, customers serve themselves in the popular breakfast buffets at Shoney's or the lunch buffets at Pizza Hut.[67]

Today, McDonald's and other fast-food chains are experimenting with self-ordering kiosks, allowing customers to take over the work of cashiers at the counter by ordering and paying for their food, highlighting not only how technological innovations are expanding the scope of self-service but also the extent to which fast-food restaurants like McDonalds's increasingly rely upon the unpaid labor of consumers. If fast-food restaurants like McDonald's can effectively operate with half the number of employees as a full-service restaurant, it is because half of the work is performed by customers. It should come as no small irony, then, that fast-food franchises like McDonalds are resisting efforts to increase the minimum wage to $15; after all, why pay their workers more when they can transfer more and more of the work onto unpaid customers who are willing to work for free?[68]

SELF-SERVICE AND THE SHRINKING CORPORATION

By substituting paid workers with the unpaid work of consumers, Ritzer suggests that many companies today are earning record profits, in part, because they are able to employ far fewer people than they previously did.[69] Accordingly, he predicts new self-service technologies like the self-ordering kiosks described above will result in significant job loss since many businesses will require "few, or at least fewer, paid employees."[70] In fact, some of the most profitable and well-known businesses in the American economy operate with relatively small workforces; Facebook, with a $250 billion market capitalization and more than 2 billion users, still has less than 20,000 employees, while Twitter and Yelp each have less than 4,000 employees.[71]

In *The Vanishing Corporation*, Jerry Davis describes how the largest, most valuable corporations of the twentieth century that employed hundreds of thousands of Americans have largely disappeared, replaced by smaller tech companies that employ only a fraction. For example, in 1962 four of the five most highly valued companies each employed more than 100,000 people; by 2012 only one company—Walmart—employed more than 100,000 people, while the other four—Apple, Exxon, Google, and Microsoft—had a combined workforce of only 300,000 (see Table 1.1).

Table 1.1 The Top Five Market Capitalization U.S. Corporations and the Size of Their Workforces (in thousands)

1962		*1972*		*1982*		*1992*		*2002*		*2012*	
AT&T	564	IBM	262	IBM	365	Exxon	95	Microsoft	51	Apple	76
GM	605	AT&T	778	AT&T	822	Walmart	434	GE	315	Exxon	77
Exxon	150	Eastman Kodak	115	Exxon	173	GE	231	Exxon	93	Microsoft	94
DuPont	101	GM	760	GE	367	Philip Morris	161	Walmart	1,400	Google	54
IBM	81	Exxon	141	GM	657	AT&T	313	Pfizer	98	Walmart	2,200

Source: Reproduced from Table 7.1 on p.91 in Davis, Gerald F. 2016. *The Vanishing American Corporation*. Oakland, CA: Berrett-Koehler.

What does he cite as the cause of this precipitous decline? While some of it may be attributable to the nature of digital work, Davis also points to automation and the growing use of informal labor, suggesting the "gig economy" and self-service may be displacing full-time jobs. Indeed, today the biggest employers in the United States are retailers, supermarkets, and fast-food restaurants, businesses that largely rely on part-time workers and—you guessed it—self-service.[72]

FOR BETTER OR FOR WORSE

Economic concerns aside, we should also consider how the spread of shadow work and self-service impacts the quality of our everyday lives as well the communities in which we live. In his widely cited book *Bowling Alone*, Robert Putnam documented the decline of civic engagement in America over the second half of the twentieth century as Americans increasingly divested time spent in their communities and civic organizations and reinvested it into individualized activities such as watching television, streaming videos, and browsing the Internet, resulting in an American public that is angrier, more divided, and less empathetic.[73] More recently, Sherry Turkle has written about the Internet and social media have crowded out traditional forms of social interaction, replacing phone calls and face-to-face conversations with emails, texts, and tweets that allow us to be both omnipresent and lonely, sacrificing conversation for connection.[74] Together, these two authors suggest that the ways we have chosen to live with technology has had profound impacts upon the American culture and lifestyle, dramatically altering not only ourselves but also our relationships and the communities in which we live.

The question I would ask, then, is whether this expansion of self-service will make our everyday lives measurably better or simply add to the growing sense of busyness and social isolation that keeps us from living the lives we actually want. How might the additional loss of leisure affect a society that already feels rushed and overburdened? And what are we willing to trade away in exchange for this form of service?

NEW FRONTIERS IN THE NEW ECONOMY

In his classic essay, "The Significance of the Frontier in American History," historian Frederick Jackson Turner stressed the importance of the North American frontier in shaping American values, culture, and democracy.[75] With no established churches, armies, landowners, aristocrats, or nobles, Americans could free themselves from European customs and traditions and establish their own culture, values, and traditions. Frontier land was free for the taking.

Today, that new frontier is the American consumer. As American businesses exhaust the cost efficiencies created by outsourcing, downsizing, and employing unpaid interns, immigrants, temps, and part-time workers, the unpaid work of consumers is like a new frontier of ever-cheaper labor. And like the gold mined from the Western frontier, the free labor of consumers has set companies scrambling to find ways to implement self-service to further cut labor costs and boost profits.

However, as I outlined in this chapter, these expanding innovations in self-service raise a series of important questions for Americans, both as workers and consumers. Is self-service resulting in further job loss and the hollowing out of American corporations? Why are Americans willing to perform unpaid work during their free time if they already report feeling overworked? And how does this affect our culture, lifestyle, and quality of life?

Chapter 2 ("Putting Customers to Work") revisits some of the ideas and theories presented in this chapter, connecting the self-service trend to various perspectives on work and consumption including the work transfer, shadow work, and Ritzer's theories of McDonaldization and prosumer capitalism. For example, Hochschild's second shift and Glazer's work transfer describe ways in which people—often women—have been socialized to perform unpaid work, suggesting that getting American consumers to do unpaid work may be less of a stretch than we might have imagined. Similarly, Ritzer's theory of McDonaldization and the "irrationality of rationality" helps to explain why rational efforts to cut costs through expanding self-service may be thwarted by irrational outcomes such as theft, boycotts, and other negative outcomes, while his recent writings on the "cathedrals of consumption" helps to explain why consumers may be attracted to self-service and the unpaid work it elicits.

Chapter 3 ("Supermarkets, Self-Checkout Lanes, and Self-Service") focuses on perhaps the most relevant and consequential setting for examining the effects of self-service—the supermarket. Supermarkets, after all, are themselves a self-service innovation; Clarence Saunders not only invented the first self-service store, also the Keedoozle and Foodelectric, precursors of today's self-checkout lane. Moreover, because most Americans rely on supermarkets for food and groceries, and because they employ more of the kinds of workers likely to be affected by self-service than any other industry, supermarkets offer an excellent case study for examining the effects of self-service. In this chapter, I describe the evolution of the supermarket as well as my case study of the introduction of self-checkout lanes in a major retail food chain (i.e., SuperFood).[76]

Chapter 4 ("Why Are There Still So Many Jobs?") examines why the introduction of self-checkout lanes hasn't eliminated jobs as many predicted.

While most of the savings associated with self-checkout lanes involves reducing labor costs by replacing cashiers with machines, according to the Bureau of Labor Statistics there are more cashiers now than there were a decade ago. That's right: the number of cashiers has continued to *increase* despite the introduction of millions of self-checkout lanes into supermarkets. Drawing on Ritzer's McDonaldization thesis and the "irrationality of rationality," I outline how despite their intended use to cut costs and reduce theft, self-checkout lanes can result in "irrational" outcomes that increase costs and reduce profitability, including theft, poor customer service, costly maintenance, and collective bargaining agreements that prohibit stores from replacing workers with machines. Perhaps even more irrational is the price that retailers have paid for this experiment in retail innovation, as several major retail chains have decided to pull the plug on self-checkout.

Chapter 5 ("Shopping with the Lonely Crowd") focuses on consumers, examining their opinions of self-checkout lanes and why they choose to use them (or not). Contrary to critics of self-service such as Ritzer and Lambert who characterize consumers as unaware or uncritical of their exploitation, I find that many customers are skeptical of self-checkout lanes as well as their role in consumption process. Far from the false consciousness of Marx's exploited proletariat, I find that customers are conscious, critical consumers who question, and in some cases outright resist, use of the technology. Yet, certain aspects of self-checkout lanes distort users' perceptions in ways that are similar to Ritzer's "cathedrals of consumption," distorting time and simulating speed to produce outcomes that are more illusory than real. I also describe how self-service may appeal to certain segments of the American public precisely because of the social worlds they inhabit; younger shoppers and "digital natives" have already been socialized to conducting transactions with things rather than people, while those who work with people all day in the service sector may appreciate the escape from the interaction rituals and emotional work that comes with dealing with people.

The concluding chapter, ("The Overworked Consumer"), summarizes the major findings and themes of the book. Although the wide-scale introduction of self-checkout lanes have not resulted in significant job loss, their overall economic effect is still largely undetermined precisely because of their relatively limited use. Until stores are willing to experiment with an entirely automated checkout system—what self-service pioneer Clarence Saunders described as the "robot grocery store"—self-checkout lanes may remain little more than a novelty. Yet, even if businesses were able to overcome such "irrationalities" as theft and customer disenchantment, the automation of low-wage jobs such as cashiers would be irrational for businesses such as retail and fast food that rely on mass consumption and economies of scale. In fact, threats to automate low-wage service jobs in America in response to calls for an increased minimum wage seems "irrational" given the fact that much of those wages are likely to be ploughed back into those very same businesses. However, increasing consolidation in the retail food industry may allow businesses to push through self-checkout and other future retail innovations despite significant customer opposition, similar to efforts that are occurring in near-monopolies such as the airline and telecommunications industry.

Yet, even if self-checkout is not currently eliminating jobs, it does represent a potential encroachment on what little leisure Americans have. Moreover, it offers little of measurable value to consumers. While this, too, may seem irrational, shifting perspectives from economics to social psychology underscores the attraction of certain segments to self-service. Ultimately, whether self-checkout and the broader trend of self-service is here to stay depends on what American consumers are willing to do. Historically, the relationship between American businesses and customers has been reflected in the maxim "the customer is always right," underscoring the ways in which businesses were deferential and accommodating to customers; the remaining question then becomes how businesses and consumers will choose to interpret self-service.

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Chapter 2

Putting Customers to Work

In the previous chapter, I introduced some of the ideas and concepts that have shaped my thinking about the growing trend of self-service. The first two—the "second shift" and the "work transfer"—concern the ways in which unpaid work has been largely delegated to women. However, I argue these concepts can also be applied toward understanding the growing role of the consumer and the unpaid labor they are expected to perform through self-service. If the second shift describes a second, unpaid job of domestic work that women are expected to do after returning home from their paid jobs, self-service might be understood as a second shift that extends to both men and women as consumers. The phrase "second shift" also helps to underscore the simple fact that *self-service requires consumers to perform unpaid work*, reminding us that some of what we do during our leisure is in fact work and making us think about the moral meanings and consequences of the unpaid work we do on behalf of businesses.

Yet, if the second shift is partly a product of gender roles and socialization, Nona Glazer's work transfer thesis suggests the self-service trend reflects a calculated and deliberate effort by businesses to reduce labor costs by transferring paid work onto unpaid consumers and especially women who still perform the majority of household consumption; time use survey data indicates that women do 40 percent more of the shopping in America than men, while retail experts estimate that women control between 70 and 85 percent of all consumer purchases.[1] In addition, self-service wasn't developed to make consumers or women's lives easier; rather, it was part of a deliberate effort by businesses to cut labor costs by *decommodifying labor*—turning paid work into unpaid work—and passing it on to customers as a form of service. For example, Saunders's original self-service store, the Piggly Wiggly—the precursor of today's modern supermarket—was not designed in response to consumer demand but was a calculated experiment in retailing; thinking that he could offset lower prices by selling higher volumes, Saunders bet that customers would be willing to do more of the work in exchange for lower prices.[2] Likewise, Glazer describes how changes in insurance and health care policies were part of a similar effort to reduce rising healthcare costs by shifting the burden of care work onto family members. Accordingly, her work transfer thesis suggests that we view these examples and other forms of self-service skeptically, if not critically, as a deliberate business strategy to reduce labor costs by shifting paid work onto unpaid consumers and women in particular.

A third set of interrelated concepts comes from the work of George Ritzer, who has written extensively about self-service, consumption, and the role of consumers in contemporary capitalism. His writings on Max Weber's theory of rationalization in the form of "McDonaldization," for example, helps to explain not only the rational, calculated advantages of self-service to businesses, but also the unexpected, negative, and "irrational" outcomes such systems can produce.[3] Although rationalization increased the efficiency and order of organizations through the use of bureaucracy, science, and technology, it also risked creating a cold, calculating world that felt impersonal and alienating, a paradoxical outcome Ritzer describes as the "irrationality of rationality."[4] Businesses, Ritzer argues, therefore had to continually refashion and transform their "cathedrals of consumption," drawing upon an ever-changing array of spectacles, simulations, and extravaganzas to attract and reenchant disillusioned customers; examples include theme and amusement parks with ever-changing rides and attractions (e.g., Disneyworld), extravagant casinos modeled after historic sites (e.g., Luxor Las Vegas), and cruise ship lines that combine travel with dozens of leisure activities, attractions, and events, increasing the speed and efficiency of consumption while encouraging consumers to spend more time and money consuming an array of goods and services.[5] These "new means of consumption," Ritzer notes, have also changed the *way* Americans consume; brick and mortar stores and malls, for example, are increasingly being replaced by cybermalls and internet shopping (e.g., Amazon), while banks, fast-food restaurants, hotels, and retail stores invite customers to "do-it-yourself" using smartphones, self-ordering kiosks, self-checkout lanes, and ATMs.[6]

However, as customers increasingly become producers of the very same goods and services they are consuming, previously clear distinctions between production and consumption and paid and unpaid work begin to erode, resulting what Ritzer describes as "presumption."[7] The downside of this advancing prosumer capitalism, however, is that it not only exploits the labor of consumers (or "prosumers") but may also threaten jobs, with Ritzer predicting that in the future businesses may require fewer workers, reflecting yet another potential "irrational" consequence of self-service.[8]

In the following section, I examine the work of Arlie Hochschild briefly mentioned in the previous chapter in greater detail, followed by a description of the pioneering work of Nona Glazer, and more recently, George Ritzer.

THE SECOND SHIFT: WOMEN, WORK, AND THE SUPERMOM MYTH

In her bestselling book *The Second Shift*, Arlie Hochschild used the term "second shift" to describe the unpaid domestic tasks women perform in addition to their paid work in the formal economy. Based on interviews with fifty dual-earner couples, she found that working women performed a majority of the housework, with only one in five men sharing in the housework. Using national time use data from the Bureau of Labor Statistics, she estimated that working women worked approximately 15 more hours each week compared to working men, adding up to roughly an extra month of work per year.[9] If dual-earner families were suffering from "a speed-up in work and family," the second shift explained why working mothers reported feeling rushed and overworked.[10]

Hochschild, however, observed that women adopted different strategies to cope with the second shift. Some women tried to "do it all," an approach she refers to the "supermom strategy." The problem, however, is that women who adopted the supermom strategy tended to burn out quickly and were more likely to consider divorce.[11] Described as a "cultural coverup," Hochschild argued that the message being given to women was that they could "have it all," yet when they struggled to balance work and family it tended to be viewed in terms of a personal failing rather than reflecting a lack of support from husbands or employers.[12]

A different approach to dealing with the second shift involves *direct change*; women could choose to marry men who would help, actively address the need to change roles at home, or even threaten divorce. But this often meant a direct confrontation and the potential for conflict; moreover, women who sought divorced faced potential financial hardship, since women on average earn only $0.80 for every dollar earned by a man.[13] Other women, therefore, used *indirect methods* such as acting helpless or being manipulative (e.g., withholding sex, being passive aggressive). Yet, while these strategies may have worked on occasion, the women Hochschild interviewed reported feeling guilty or uncomfortable using them.[14]

Other strategies Hochschild observed included cutting back at work, cutting back at home, or seeking help. Yet as Hochschild notes, to some women cutting back felt like a defeat; for women in high-powered careers, it meant a demotion to being "just a housewife."[15] Likewise, those who cut back on housework, childcare, or their marriages risked feelings of guilt or tried to rationalize their choices. Those who sought help either hired a housekeeper or babysitter or relied on relatives, drawing upon different types of capital; yet both financial and social capital have their limits, implying they could only be used to a certain degree.

How did the men cope with the second shift? In truth, most didn't—they simply left all of the housework to their wives. The big difference, Hochschild notes, is the pressure they received from their wives; most of the men in her study who did not share the work at home reported being occasionally subjected to pressures from their wives to do more around the house. Yet, while a small minority volunteered to "pitch in" with the housework, most exercised what Hochschild termed "strategies of resistance." For example, by forgetting the grocery list, shrinking the clothes, or accidentally burning the dinner, men could get credit for "being a good sport" while ensuring they would not be asked to do so again.[16]

While men and women coped with the second shift in different ways, the reasons they gave underscored the motivation of family, love, and devotion. For most couples, Hochschild noted, the tasks of the second shift meant "I am taken care of" or "I am taking care of someone."[17] In short, the way men and women reported feeling about the second shift influenced the way they thought about themselves and their marriages; some couples leaned toward a traditional marriage where the wife cooked and did the housework, while others leaned toward an egalitarian model in which men and women sought to split the second shift equally. However, as Hochschild states,

> A split between these two ideals seemed to run not only between social classes, but between partners within marriages and between two contending voices inside the conscience of one individual. The working class tended toward the traditional ideal, and the middle class tended toward the egalitarian one. Men tended toward the traditional ideal, women toward the egalitarian one.[18]

In other words, couples' views of marriage and the second shift tended to fall along lines of social class and gender, as "most marriages were either torn by, or a settled compromise between, these two ideals."[19]

In fact, more recent research on attitudes toward marriage finds that while many people aspire to a marriage of equality, when faced with alternatives men and women tend to make very different choices. For her book *The Unfinished Revolution*, NYU sociologist Kathleen Gerson interviewed more than a hundred young men and women of varying ages, races, and social classes, posing them a series of questions asking about their attitudes toward marriage.[20] A vast majority—nearly eighty percent of women and seventy percent of men—indicated desiring an egalitarian marriage in which both partners shared breadwinning, child rearing, and housekeeping. In practice, however, Gerson notes that egalitarian relationships are often difficult to maintain; work and family are “greedy institutions” that demand undivided time and loyalty from individual members, and existing patterns and routines of work and home often change with the arrival of children.[21] Accordingly, when Gerson asked her respondents what kind of marriage they would prefer if they could not maintain an equal partnership, she found that while men and women shared ideal views of marriage, their fallback positions differed dramatically; seventy percent of men preferred a traditional division of labor in which they would be the breadwinner while their wives devoted their time and energy to caring for the home and children, while nearly three-quarters of the women said they would prefer to get a divorce and raise their kids alone rather than be a housewife or work part time. In short, both men and women value economic self-reliance but not unpaid housework, preferring relationships that focus on their careers rather than caretaking or domestic work.

THE OUTSOURCED SELF

In her more recent book *The Outsourced Self*, Hochschild argues that one of the prevailing ways American families have coped with the second shift is by outsourcing more and more personal services to the marketplace, suggesting that “while market forces have eroded stability and fostered anxiety at work and home, it is, ironically, mainly the market that now provides support and relief.”[22] Along with traditional tasks such as child care, cooking, and cleaning, American families now employ a growing array of personal services including dog walkers, educational tutors, personal trainers, gardeners, event planners, and life coaches just to name a few. Previously associated with the upper-class, personal services have become a common way middle-class families cope with the increasing demands of work and family.

How common? Consider this: over the past two decades, personal service jobs have grown faster than any other category of work.[23] Between 1989 and 2007, the number of personal services jobs grew by 36 percent, while clerical and factory jobs grew by just 5 percent. In fact, while nearly 9 million jobs were lost during the Great Recession, the number of personal service jobs actually *increased* by 2 percent. According to the Bureau of Labor Statistics’, between 2007 and 2011 the number of personal and home care aide jobs grew by 37.8 percent, nonfarm animal caretakers by 21.5 percent, home health aides by 10.8 percent, childcare workers by 9.5 percent, and fitness trainers and aerobics instructors by 5.2 percent—all during a time when the overall rate of jobs in the U.S. economy declined by 4.5 percent.[24]

While some extol the fact that many of these jobs can't be automated or exported, the problem is that many of these jobs are part of what is called the "gig economy," a catch-all phrase used to describe nonstandard, temporary, and freelance forms of work that includes Uber drivers, babysitters, dog walkers, and personal trainers.[25] While some of these can be well-paying, a majority are precarious low-wage forms of work that provide neither the wages nor the benefits associated with more traditional forms of employment.[26]

Moreover, many of the jobs outsourced by families are tasks that ultimately end up being performed by other mothers, an irony that does not go overlooked by Hochschild. In an essay titled "Love and Gold," she describes the increasing extent to which women—especially migrant women—are being hired to do the work created by the absence of working women in the home:

> Vastly more middle-class women in the First World do paid work now than in the past. They work longer hours for more months a year and more years. So they need help caring for the family. In the United States in 1950, 15 percent of mothers of children aged six and under did paid work while 65 percent of such women do today. Seventy-two per cent of all American women now work. . . . [But] if First World middle-class women are building careers that are molded according to the old male model, by putting in long hours at demanding jobs, their nannies and other domestic workers suffer a greatly exaggerated version of the same thing. Two women working for pay is a good idea. But two working mothers giving their all to work is a good idea gone haywire. In the end, both First and Third World women are small players in a larger economic game whose rules they have not written.[27]

In other words, while commercializing domestic work allows working women and their families to outsource the second shift, it does so by employing other women, especially migrants, in precarious, low-wage forms of work, reflecting the ways in which contemporary market forces have pressured families to commercialize caring, child rearing, and love.

HAVING IT ALL AND GIVING IT AWAY FOR FREE

How does any of this relate to self-service? First, like working mothers, consumers are increasingly being expected to "do it all," assembling furniture (e.g., IKEA), navigating maze-like customer service phone menus (e.g., *"Press one to speak with a pharmacist, press two to refill a prescription"*), printing tickets, pumping gas, scanning and bagging groceries, and doing all sorts of other unpaid work. While it is difficult to estimate precisely how much unpaid work consumers do, if even a fraction of Americans' leisure time is devoted to unpaid work it is still a considerable chunk of time nevertheless. For example, national time use data indicates that the average American spends approximately 70 minutes eating and drinking, 45 minutes shopping, 30 minutes caring for and helping household members, and 10 minutes answering phone calls, mail, and email each day.[28] Even if we use assume that only 10 percent of this time—a very conservative estimate—is spent using self-service, it still adds up to a considerable amount of time—approximately 108 minutes or almost 2 hours per week. Over the course of a year, that adds up to almost 100 hours of unpaid work—and that's before we factor in the second shift at home!

A second way in which self-service relates to the second shift is in the way in which many of the strategies used by businesses and consumers mirror those used by Hochschild's couples. Businesses that cater to high-income clients may be expected and able to "do it all," but low-cost retailers are increasingly asking customers to "help out" with rising costs by scanning and bagging their items in the self-checkout lane or purchasing their own recyclable shopping bags, while airlines allow customers to "pitch in" by checking in online and printing their own boarding passes.

In fact, the outsourcing of paid work to unpaid customers is very similar to the outsourcing of domestic work described in *The Outsourced Self*; both reflect organizational efficiencies created by tapping into external sources of labor. The only differences are the organizations (i.e., family, corporation) and forms (i.e., nannies, self-checkout lanes) through which they occur. A similar parallel can also be observed in terms of class differences; families that can afford to outsource child care and cleaning can now also outsource other tasks such as accounting and bookkeeping (e.g., MYOB), creating photo albums (e.g., Organize 365), dog walking (e.g., Wag), driving (e.g., Uber), grocery shopping (e.g., Shipt), household repairs (e.g., TaskRabbit) meal preparation (e.g., Blue Apron), scheduling (e.g., Odesk), and writing handwritten personalized cards to friends and relatives (e.g., Sent-Well), while those that cannot are left to do it themselves. And with wages stagnant for a majority of working Americans, that means more working adults are being asked to perform a second shift of unpaid work scanning groceries, navigating menus, and performing countless other tasks on behalf of companies that complain they can't afford to increase wages.

Indeed, like the majority of husbands Hochschild interviewed who refused to help with the housework, most American businesses seem uninterested or unwilling to raise wages, preferring instead to automate or outsource the work for consumers to do. For example, a majority of fast-food restaurants—the largest employers of minimum wage workers—have actively resisted national efforts to raise the minimum wage to $15 an hour, preferring instead to replace cashiers with self-ordering kiosks. Like lazy husbands, they would rather leave the work to consumers and come up with all sorts of excuses not to raise wages (e.g., job loss, higher prices), despite numerous studies that demonstrate raising wages in the fast-food industry doesn't necessarily result in job loss or that an increase to a $15 hourly wage would increase the price of a Big Mac by less than 20 cents.[29] In fact, even if McDonald's were to double the wages of its workers, from 17 to 25 percent of its operating expenses, it would still earn a healthy operating profit of more than $5 billion.[30] Yet instead, McDonald's and other American businesses continue to stubbornly refuse to "help out" with the economy while reporting record profits and stock prices, suggesting they are too busy filling their pockets to let the profits trickle down to the average working American.

It is also important to remember that like Hochschild's husbands, businesses were able to survive before the advent of self-service. In fact, plenty of businesses continue to thrive today without self-service. Instead, it seems that a growing number of businesses are just simply unwilling to pay workers higher wages, preferring instead to pass the work on to unpaid consumers as a new form of "service." The result, I argue, is a new twist on the second shift, as consumers are increasingly being left with the chores at work as well as home.

COPING WITH THE DO-IT-YOURSELF ECONOMY

If the "cultural coverup" described the message that women could "have it all" and then blamed them when they couldn't, then perhaps the cultural coverup of self-service is that it tells consumers they can "do-it-yourself" and then blames them when they feel overwhelmed, pointing to the fact that they have more free time than ever before. This raises an important question: how do consumers cope with this new second shift and the unpaid work they are increasingly expected to perform for American businesses?

One way consumers might cope is by adopting the supermom strategy, becoming "superconsumers" who take on the challenge and try to "do it all." Yet, to a certain extent, American consumers have been doing it all, if not overdoing it, for years. Consumer debt, for example, has risen to $13 million, exceeding the peak reached in 2008 during the Great Recession.[31] In fact, one could argue that the U.S. economy has become too dependent upon consumers. For example, consumer spending comprises nearly 70 percent of the U.S. gross domestic product (GDP), while the United States has a higher household consumption expenditure per capita than any other country.[32] As Juliet Schor puts it, the average American family is "overspent."[33]

Instead of asking American consumers to do it all, perhaps the U.S. government, businesses, and the wealthiest 1 percent could "help out" a little more. For example, the U.S. currently exports more than $1.6 billion in goods and services, second to only China, but ranks fifty-seventh in exports per capita, suggesting there is considerable room for improvement in U.S. trade policy.[34] The wealthiest 1 percent could also pitch in by sharing some of the gains they've hoarded over the past several decades from increases in productivity. That's right: from 1973 to 2013, productivity in the U.S. economy increased by 74 percent, yet while wages among the top 1 percent grew 138 percent, wages for the bottom 90 percent—the vast majority of American workers—grew a measly 15 percent.[35] If you break out the wages of American workers into groups, the picture gets even worse; from 1979 to 2013, the hourly wages of middle wage workers (i.e., workers who earned more than half the workforce but less than the other half) grew by only 6 percent—less than 0.2 percent per year—while the wages for low-wage workers fell by 5 percent.[36] Meanwhile, during this same period compensation for CEOs increased by more than 900 percent, with CEOs today earning almost 300 times what the typical American worker makes.[37]

In fact, many of the executives who oversaw businesses during the adoption of self-service technology benefited personally. For example, Lee Scott, who served as CEO of Walmart from 2000 to 2009, amassed $220 million in Walmart stock and received a compensation package in his final year worth more than $30 million.[38] From 2003 to 2014, while Kroger was installing self-checkout lanes in more than two thousand stores, CEO David Dillon received $13 million in compensation, an amount he later publicly admitted described as "ludicrous."[39] Even the stereotypically frugal Dutch paid incredible amounts to their executives; in 2003, Royal Ahold, a Dutch conglomerate that owned the Mid-Atlantic supermarket chains Stop-n-Shop and Giant which were beginning to introduce self-checkout lanes, agreed to a two year contract with CEO Anders Moberg worth more than $6 million.[40] Moberg had threatened to resign if shareholders did not approve his requested compensation which included a guaranteed annual bonus of €1.5 million as well as a large severance package, regardless of how Ahold performed, but later acknowledged that the amount was "unacceptable" and agreed to modify his compensation when Dutch shoppers threatened to boycott Ahold's flagship chain Albert Heijn.[41]

Yet, even if they wanted to, corporate executives and the wealthy 1 percent simply cannot consume as many goods and services as the rest of us Americans. Although the U.S. economy has increasingly moved away from a mass production economy, several key industries still rely on mass consumption and economies of scale. Consider, for example, fast food; Americans spend more than $100 billion on fast food, with McDonald's leading sales with 17 percent of the fast-food market.[42] That's a lot of hamburgers. In fact, Americans eat nearly 50 billion burgers a year, translating into to three burgers per week for every single person in the United States.[43] Or consider clothing; the average American family spends $1,700 on clothing annually, adding up to nearly 20 billion garments a year, or almost seventy pieces of clothing per person.[44] There's simply no way the wealthiest 1 percent could sustain that level of consumption.

If the superconsumer strategy is unsustainable and the 1 percent is unwilling to share the wealth, perhaps American consumers might reconsider their choices. After all, one of the strategies adopted by the women Hochschild interviewed involved making choices, actively choosing men who were willing to help or threatening divorce when they didn't. To a certain degree, consumers can choose what to buy, where to shop, or boycott individual businesses, voting with their pocketbook and directly affecting businesses' bottom line. For example, when Home Depot experimented with replacing human cashiers with self-checkout lanes, customers opted instead to shop at rival Lowes whose stock price subsequently doubled; having learnt its lesson, Home Depot brought back human staff and saw its profits return.[45]

But in certain industries, the average American consumer has little choice over whether or not to "do-it-yourself." Nearly all the major U.S. airlines have adopted self-check-in and self-service ticketing kiosks, and unless you live in Oregon or New Jersey you have to pump your own gas. Likewise, consumers who cannot afford a travel agent must arrange their own flight and hotel reservations. And it's hard for American consumers to threaten divorce when certain industries are virtual monopolies. For example, in the United States, five major companies—Comcast, Disney, 21st Century Fox, Time Warner, and National Amusements, which owns both CBS and Viacom—own 90 percent of the media, while three pharmacy benefit managers (PBMs)—Express Script, CVS Caremark, and OptumRx—control 80 percent of the prescription drug market.[46] Meanwhile, a series of bankruptcies and mergers over the last fifteen years has shrunk the number of American airlines down to four mega-carriers that control nearly 90 percent of all domestic flights, while more than half of all Americans only have only one choice of provider for broadband internet.[47] Consumer threats to break up these marriages with monopolies also carries little weight because of the outsized influence of corporate lobbyists, with businesses such as Comcast and Google regularly donating millions of dollars to political candidates on both sides of the political aisle. According to the Federal Election Commission, in 2016 Google's political action committee, or PAC, donated more than $2 million to political candidates running for office, while in 2017 Comcast spent over $15 million on lobbying alone.[48]

What about indirect actions such as withholding or being manipulative? As I noted earlier, withholding from businesses in the form of boycotts or choosing to shop elsewhere can be a successful strategy. For example, the student organization United Students Against Sweatshops successfully persuaded the administrations of Boston College, Columbia, Harvard, New York University, Stanford, Michigan, North Carolina, and eighty-nine other colleges and universities after threatening to boycott school merchandise, while boycotts at Georgetown, SUNY Albany, Goucher, and James Madison University resulted in schools changing their food suppliers or renegotiating existing contracts to improve the quality of food or working conditions.[49]

These examples and others underscore the degree to which consumers have *agency*, or the ability to act and think independently of social constraints; like Hochschild's couples, shoppers have choices about how to cope with the second shift of self-service unpaid work. The question is how they perceive self-service and whether they choose to engage in it. For example, whereas some women viewed the work of the second shift as being a "good mother," it seems unlikely that American consumers view the use of self-service as being a "good customer." After all, what is the consumer's moral responsibility to McDonald's or American Airlines? What does it "owe" them, if anything? Alternatively, how might consumers use "strategies of resistance" to avoid using self-service and how effective are such forms of refusal?

If Hochschild's concept of the second shift helps to frame the growth of unpaid work and the moral meanings that guide consumers' responses, Nona Glazer's writing on the work transfer explains how self-service fits into a larger process of cutting labor costs and increasing profits and can be used to examine what kinds of work can and cannot be transferred onto consumers.

THE WORK TRANSFER: FROM PAID TO UNPAID WORK

Picking up where Hochschild left off, Nona Glazer's *Women's Paid and Unpaid Labor* documents how American retailers and health care providers adopted self-service in a calculated effort to cut costs and increase profits by transferring work from paid workers onto unpaid consumers and especially women. Focusing on the retail and health care industries, she illustrates how businesses consciously strove to reduce labor costs by implementing new innovations and policies to allow businesses to transfer work onto consumers.

Specifically, by combining the unwaged work of women with the waged labor of service workers (also mostly women), employers invented a new social relationship: the *work transfer*. The work transfer allowed businesses to redistribute labor from paid women to unpaid women and family members in a process Glazer terms the "decommodification of labor":

> Labor is decommodified, in part, when employers cease buying the labor power of service workers or buy less of it and from fewer workers. But the need for

> the service labor does not disappear, and so the work remains. Employers force a new division of labor though the work transfer, redistributing tasks between paid service workers and customers . . . in the work transfer, the labor process is reorganized to depend on what has been called "self-service" or "self-care."[50]

Similar to outsourcing or offshoring, the *decommodification of labor* describes the relocation of labor from the formal marketplace to the informal—and unpaid—domestic sphere. This relocation of work, however, is less geographic than it is social; work is not relocated to a physical space but rather a social one. By getting consumers and their family members to take over more of the work in shopping and health care, businesses were able to reduce costs. Moreover, by transferring work to the domestic sphere, businesses were able to draw upon a large and previously untapped source of labor, turning consumers and their families into "servants to capital."[51]

Accordingly, Glazer notes the various ways in which self-service has been applied to the service industry, replacing the work of mostly female workforces with the unpaid work of male and female consumers to varying degrees:

> Self-service gasoline stations displaced young male workers and until women increased their ownership of cars made more work for men than female customers. Automatic teller machines (ATMs) displaced mostly women clerical workers, but both women and men use the machines. Do-it-yourself law involves largely poor women clients and legal aides who substitute for lawyers . . . benefitting lawyers by relieving them of poorly paid jobs. The work transfer of clerical work passes the responsibility of insurance paperwork to clients or asks to charge customers to do paperwork that minimized that of office workers. Computerized libraries require scholars to become experts in computerized searches, reduce the assistance of research librarians, and encourage libraries to hire aides and library assistants in place of professionals.[52]

Ironically, a majority of the occupations producing these self-service technologies are in science, technology, and engineering, and mathematics—STEM jobs that are heavily male-dominated, meaning that self-service not only creates more unpaid work for women as consumers but erodes demand for female-dominated jobs (e.g., librarian, paralegal) while simultaneously increasing the demand for male-dominated ones (e.g., computer science, engineering).

While self-service and the work transfer have since been successfully applied to numerous industries, Glazer offered several reasons for focusing her analysis on retail and health care. First, women were the predominant paid workers in both industries, and as a women's studies scholar, Glazer was interested in examining the nexus of women's paid and unpaid work.

Self-service also had an extensive history in each industry; in retail, self-service was first introduced in restaurants in the 1890s and in grocery stores in 1912, while self-service (e.g., self-diagnoses, self-prescription, self-care) characterized health care until the late nineteenth century when the hospital supplanted the home. Yet, the outcomes of each industry differed in frequency and importance; in retail, customers engaged in self-service regularly with perhaps some degree of inconvenience but little danger, while in health care caregiving tended to occur irregularly but with potentially serious consequences including death. Moreover, the retail and health care industries adopted self-service for different reasons; retailers adopted the work transfer to deal with labor shortages and rising labor costs, while in health care insurance companies pressured the U.S. government to curb rising expenses by enacting policies that capped hospital payments, incentivizing hospitals and their families to substitute hospitalization with home-based health care.[53] In the following section, I describe her analysis of self-service in the retail and health care industries as well as how they can be applied to contemporary examples of self-service in a variety of settings.

SELF-SERVICE AND THE RESTRUCTURING OF RETAIL

Prior to the emergence of the modern supermarket, most food was either sold out of independent, family owned shops, while department stores such as Filene's and Marshal Field began to sell dry goods in major cities in the late nineteenth century. Stores largely operated through "clerk service," with staff receiving orders, finding merchandise, calculating costs, and delivering goods. In fact, salesclerks were arguably moderately skilled workers:

> Before self-service, selling required that clerks have skills, such as knowledge about style, fit, and quality, and familiarity with "good" buys. The sales clerk also did the legwork of locating goods or finding compatible or complimentary merchandise. Salesclerks also had skills in persuasion, a service to the retailer as much as to the buyer.[54]

As goods became cheaper and the wages of the working class rose, stores began to add more services in order to attract more customers. In fact, by 1929, department stores were offering an incredible array of services including layaway plans, a Saturday theater for children, nurses for shoppers with infants, personal shopping, restaurants, real estate services, sewing instruction, shoe shining, smoking rooms, stenographers, and tour planning, and umbrella checking just to name a few.[55] Yet, by adding more and more services to the business, stores faced greater pressures to increase sales and reduce costs.

While advertising, branding, and mass-marketing helped increase sales, self-service emerged as a solution to rising labor costs, as chains such as Lutey Brothers and Clarence Saunders's Piggly Wiggly experimented with transferring tasks previously performed by clerks onto customers in exchange for lower prices.[56] The lower prices of food and the ability to rely on fewer staff also made self-service stores increasingly attractive during the Great Depression and helped businesses cope with price and wage controls during World War II.

A WOMAN'S WORK IS NEVER DONE: FROM SALESCLERKS TO THE "CLERKLESS CUSTOMER"

At the same time grocery stores began to introduce self-service, they also began to employ women in ever-increasing numbers, especially as salesclerks. Part of the reason was that the growing service economy offered better jobs working elsewhere; wartime industries and the expanding number of clerical jobs were more appealing than sales with "long hours, class-based subservience to customers, and behavior, language, and dress codes."[57] In fact, being a salesclerk was so unattractive that retailers initiated efforts to introduce sales skills in high school curriculums.[58]

For women, however, working in a department store was viewed as "much more genteel than working in a factory," reflecting the ways in which certain jobs were viewed as more or less morally compatible with women's roles.[59] As historian Alice Kessler-Harris notes, women sought out certain types of work because they reaffirmed gendered values of cleanliness, domesticity, and moral standing. Factory jobs, for example, were viewed by some as "immoral" but better than higher-paying domestic work, while other jobs such as waitressing were perceived to have a "demoralizing tendency" due to the working ways in which women were expected to interact with male customers.[60] Retail work, however, was attractive to women not because of its wages—it often paid a fraction of what waitresses and domestic workers earned—but because of its respectability and social standing.

These preferences and rankings of jobs reflects Lester Thurow's view of labor markets as *labor queues* of workers; Blacks, he argued, experienced higher rates of unemployment relative to Whites because employers preferred Whites to Blacks.[61] Blacks got a chance to move into better jobs when they were abandoned by White workers (e.g., food processing) or when White workers were in short supply (e.g., during World War II), while highly prized or better jobs that were limited in supply tended to be filled by Whites. Sociologists Barbara Reskin and Patricia Roos extended job queueing theory by suggesting parallel queues reflecting the rankings and preferences of *both* employers and workers.[62] However, while workers tended to rank jobs in terms of autonomy, job security, prestige, and wages, their research findings suggested that employers' preferences for workers extended beyond qualifications and wages to include demographic factors such as race and gender; some employers sought the most qualified workers of a given preferred gender or race, while others preferred a specific gender or race because they could pay them lower wages. In retail, this meant as men moved out of cashier and salesclerk positions into better paying positions in management or jobs in other industries, employers began to increasingly hire women, and as the number of salesclerks declined with the expansion of self-service stores, women, not men, were hired for the cashier jobs.

In fact, Glazer notes, retail stores "brought women into *paid* employment at the same time they were asking women customers to do self-service," resulting in a new division of labor in which "women shoppers do *some* of the work that men once did as salesclerks," while "women paid workers do *some* of that work as cashiers."[63] In short, the work transfer of self-service in retail not only replaced male workers with female workers, but fragmented the work of retailing into paid and unpaid work. In fact, she notes, this fracturing of work had started well before the feminization of retail work, as employers began to replace long-term, full-time jobs in stores with part-time work.[64] Historically, retailers had always had employed some part-time staff, but it was the development of the self-service store, Glazer argues, that allowed them to push wages down further by transferring the remaining work onto unpaid female customers and paid female cashiers.

The retail industry accomplished this transformation largely through marketing. As American households lost domestic servants to factories, offices, and stores that offered better wages and working conditions, magazines such as *Ladies Home Journal* shifted their focus from the training of servants to offering advice to housewives on how to manage their growing domestic responsibilities, transforming "servantless" middle-class housewives into self-reliant homemakers.[65]

In fact, as Glazer points out, the transformation of women into "clerkless customers" was simply a one of a series of losses of services to women, as new inventions such as electric stoves and washing machines displaced commercial food and laundry services, creating more unpaid work for women. In place of servants, newspaper and magazines advertised new household technologies that promised to help reduce the burden of housework. Yet, as historians Ruth Schwartz Cowan and Susan Strasser point out, most of these innovations simply reorganized work rather than eliminating it, replacing the work of paid men and servants with the work of unpaid women and housewives.[66] In fact, researchers find the time spent on housework remained largely unchanged between 1920 and 1960, despite innovations in household technology including washing machines, electric dishwashers, toaster ovens, and microwaves.[67]

Retailers, Glazer notes, adopted a similar strategy, promoting self-service stores in terms of customer choice and time saved. Piggly Wiggly, for example, advertised not only savings in price, but benefits in "time, energy, and patience!," variously promoting shopping in its self-service store as "an adventure," "delightful," and "leisurely" (see Figure 2.1).[68] Instead of salesclerks, self-service stores advertised that women were free to make their own decisions, implying that self-service meant an increase in personal control rather than a reduction in quality of service.[69]

Today, we can observe similar efforts in the promotion of self-service from suppliers of self-service technology as well as the businesses that use them. For example, two of the largest manufacturers of self-checkout lanes, IBM and NCR, frame the use of self-checkout lanes not as an engineered restructuring of retail to transfer work and reduce labor costs but as a response to burgeoning customer "demand," implying self-service is being driven by customers rather than businesses. Likewise, fast-food chains such as Wendy's promote self-ordering kiosks as time saving devices, "allowing customers to circumvent long lines during peak dining hours," and "enhanc[ing] the customer

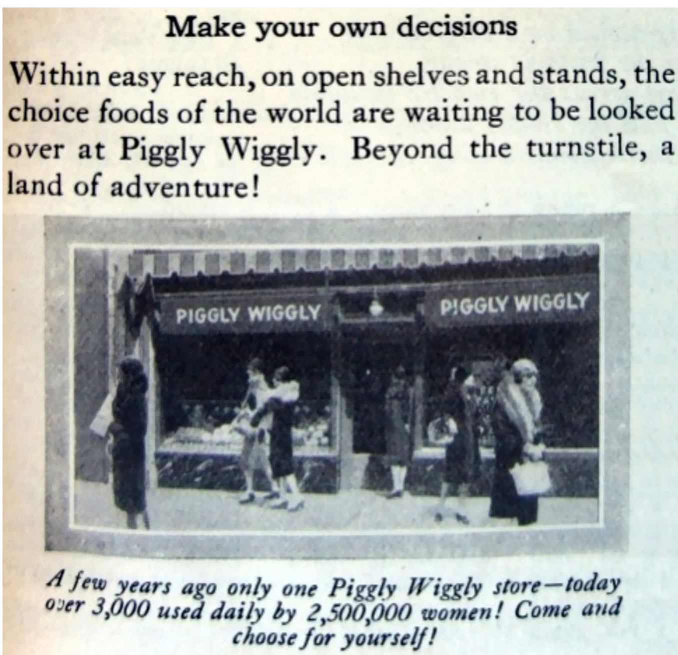

Figure 2.1 Sample Advertisement for Piggly Wiggly.

experience."[70] Meanwhile, airlines are promoting self-service as "personalization," an apt expression given that online check-in and electronic boarding passes increasingly rely on consumers and their own personal devices.[71] In fact, airlines are laying the groundwork for an entirely self-service airport; Delta, for example, recently announced plans to introduce four self-service bag drop machines at Minneapolis-St. Paul International Airport this summer, a $600,000 investment that allows customers to check their own bags.[72]

Yet, it is hard to believe the self-service trend is truly being driven by consumers. Instead, many of these claims echo the ways retailers promoted earlier forms of self-service and the "clerkless customer" nearly a century earlier, using similar language of "choice," "freedom," and "control" to frame unpaid work as some sort of emancipation from service by paid employees. In fact, the introduction of self-checkout lanes can be viewed as simply a continuation of the process of self-service Glazer described; with women still doing a majority of the grocery shopping and cashier work, self-checkout lanes arguably represent yet another unpaid task being transferred from paid women to unpaid women under the guise of "service."[73]

Critics such as Douglas Rushkoff and Naomi Klein would also point out that it is probably no coincidence that the language used to promote self-service mirrors the same language used to promote neoliberal economic policies.[74] While it has been various applied to describe the views of economists (e.g., Friedrich Hayek), economic schools of thought (e.g., the Chicago School of Economic), and politicians (e.g., Margaret Thatcher), the most basic definition of *neoliberalism* describes new economic, political, or social arrangements that emphasize austerity, commercialization, deregulation, and individual responsibility, seeking to expand market relations into all aspects of social life while simultaneously vastly reducing the power of the state.[75] In this context, neoliberalism describes the ways in which businesses promote self-service as a market solution for both individuals and businesses; consumers enjoy more choices but at the cost of greater responsibility, allowing businesses to operate more efficiently. Critics, however, argue that deregulating markets and shrinking the states results in a sort of "corporatocracy" in which corporations effectively control the government and private markets, resulting in monopolies, regulatory capture, and greater income inequality, suggesting that we view the private sector's promotion of self-service more critically, if not cynically.[76]

RESTRUCTURING HEALTH CARE

While the restructuring of retail was prompted by the rising cost of labor, the restructuring of health care in the United States that began in the 1970s largely resulted from rising health care costs. As Paul Starr meticulously documented in his Pulitzer-Prize winning history of the American medical profession, *The Social Transformation of American Medicine*, soaring health care costs were publicly described as a "crisis."[77] From the 1960s, when the U.S. government significantly expanded access to health care through Medicare and Medicaid, to 1990, health care expenditures rapidly increased, rising from $147 per person in 1960 to just under $3,000 dollars in 1990, while national health expenditures as a share of GDP more than doubled.[78] Yet, while many attributed the increase in costs to Medicare and Medicaid, the actual causes were the basic underlying financial arrangements between doctors, hospitals, government programs, and insurance companies that shielded patients from the actual costs of treatments, incentivized doctors to charge ever-higher fees, and encouraged hospitals to maximize reimbursements rates from insurers.[79] With employers and taxpayers footing a majority of the cost, voters, politicians, and private insurers began pressuring the federal government to find ways to reduce or control costs. In response, the federal government experimented with different measures to control costs aimed at patients, physicians, and hospitals.

One method involved *increasing* the cost of health care services, narrowing coverage and increasing premiums in order to thwart what economists refer to as "moral hazard." Generally speaking, *moral hazard* occurs when one person or group takes more risks because another person or group bears the cost of such risk-taking, suggesting that patients might be less likely to overuse or seek unnecessary care if they had to shoulder more of the costs.[80]

Yet, if patients were one source of moral hazard, doctors represented another since under the fee-for-service system of reimbursement, physicians had little incentive to restrict the services. Fee-for-services was the dominant form of health care in the United States until health maintenance organizations (HMOs) in the 1970s as yet another attempt to control costs; customers paid a nominal fee for services and the insurance company paid the rest. However, the fee-for-services system created a set of perverse incentives that motivated physicians and hospitals to provide more rather than less services to patients. To cut physician use, hospitals tried freezing physician fees and required second opinions and peer review for major surgeries.[81]

Fearing that failure to control rising costs would result in greater meddling by Congress and insurers, the professional associations of physicians and hospitals even proposed a variety of cost containing measures, including centralized purchasing, the use of cafeterias rather than meal delivery for ambulatory patients, and increased use of part-time staff, while the federal government sought to prevent unnecessary construction or duplication by instituting oversight agencies that issued Certificates of Need (CON).[82] Yet, none of these measures slowed the rising cost of health care.

Congress, therefore, passed a series of legislative acts that sought to curb rising costs by changing the way hospitals were paid. Based on a program piloted in New Jersey, from 1983 to 1985 a series of Congressional amendments to the Social Security Act replaced the fee-for-service reimbursement system for treating Medicare patients with the use of "DRGs." Under diagnosis-related groups, hospitals received flat fees assigned to diagnoses. Although the program provided varying fees depending on age and race—younger patients, for example, were allocated slightly higher fees—the replacement of the fee-for-services system with flat fee reimbursements for Medicare patients incentivized hospitals to discharge patients more quickly, pressuring doctors and nurses to "speedup" the increasingly standardized delivery of medical care.[83]

DEHOSPITALIZATION AND DO-IT-YOURSELF HEALTH CARE

While diagnosis-related groups may have been intended to make hospitals "more efficient," Glazer argues they effectively resulted in a work transfer policy of "dehospitalization," as elderly patients became increasingly cared for by nursing homes, families, and caregivers.[84] For example, following the adoption of diagnosis-related groups, the average length of stay for Medicare patients decreased by approximately four days, while home-based outpatient care increased by more than 20 percent.[85]

Yet, if the work transfer onto family members was an unintended consequence, it clearly reduced medical costs. Shortly following the adoption of diagnosis-related groups, the federal government estimated that, "for every 120 dollars of taxpayer money spent on home care agencies, an estimated 287 dollars' worth of unpaid services is provided by the homebound person's family and friends," saving employers, insurers, and taxpayers an estimated 10 billion dollars in health care costs. Since then, the savings from unpaid care have continued to grow dramatically; according to a recent study by the National Alliance for Caregiving and AARP, an estimated 43.5 million adults in the United States provided unpaid care to an adult or a child during the previous year, saving hospitals and insurance companies approximately $470 billion.[86]

In fact, part of the reason home health care is less expensive than physician or hospital care is because "amateur care-giving" is largely performed by unskilled family members and minimum wage workers—and demand for these kinds of workers is growing.[87] According to the Bureau of Labor Statistics, home health aide is one of the fastest growing occupations, with employment projected to increase by 38 percent over the next decade.[88] Yet, it is also one of the lowest paying and least educated jobs in the U.S. economy, requiring not even a high school diploma and paying wages nearly equivalent to fast-food workers.[89] Meanwhile, popular websites such as WebMD invite users to skip medical school altogether, offering tools for self-diagnosis and treatment including a "symptom checker." How many Americans are self-diagnosing? According to Nielsen, 97.5 million Americans—nearly one of three adults—visited health websites in 2012 to obtain information, with WebMD leading the pack with more than 25 million monthly visitors.[90] So much for leaving it to the professionals.

Glazer also correctly points out that while cost-cutting measures have been largely focused on users (i.e., patients) and providers (i.e., physicians and hospitals), little attention has been given to the incredibly profitable insurance, pharmaceutical, and medical equipment industries. This is especially relevant given the current political debate over the Affordable Care Act (ACA), or "Obamacare," and the rising cost of "entitlements" such as Social Security and Medicare.

Insurance companies are in fact cutting back, pulling out of markets with sicker patients and lower profit margins. For example, UnitedHealth Group, the largest private insurer in the United States, plans to leave almost all of the ACA markets due to the "high expense of insuring patients," claiming the ACA reduced its 2016 earnings by $850 million despite reporting a net income of over $7 billion in the same year.[91] Other major insurance companies such as Anthem and Cigna also reported net incomes in 2016 numbering in the billions, yet Anthem pulled out of the ACA markets in Ohio and Wisconsin, and Cigna plans to exit Georgia and Texas in 2017.[92] Like lazy husbands refusing to help with the housework, insurance companies seem to be unwilling to cover the cost of insuring the sick, preferring instead to point out the increased costs of doing so despite earning record profits.

Medical device manufacturers and pharmaceutical companies have also dodged cutting costs. Medical suppliers, for example, charge markups of 100 to 200 times for intravenous bags of saline that cost as little as 44 cents to manufacture, while the cost of insulin—used to treat diabetes, a disease affecting roughly one in ten Americans—more than tripled between 2002 and 2013.[93] Or consider EpiPens, or epinephrine autoinjectors; used to treat severe allergies, EpiPens cost approximately $10 to manufacture and package and deliver approximately $1 worth of medication, yet from 2007 to 2016 the wholesale price of a package of two EpiPens increased from $100 to $609, an increase of more than 600 percent.[94] Similarly, Turing Pharmaceuticals attracted attention in 2015 when it raised the price of Daraprim, a rebranded version of the 1950s era drug Pyrimethamine, from $13 to $750 a tablet; used by HIV and cancer patients, the price hike prompted a joint letter from two professional medical associations that called the price increase, "unjustifiable for the medically vulnerable patient population" and "unsustainable for the health care system."[95]

Turing's price increase, however, is hardly an extreme example. Cycloserine, a drug used to treat dangerous drug-resistant tuberculosis, was increased in price from $500 to $10,800 in 2015 after being acquired by Rodelis Therapeutics, while the prices of two generic heart drugs, Isuprel and Nitropress, were raised in price by 525 percent and 212 percent, respectively, after being acquired by Marathon Pharmaceuticals in 2013.[96] Likewise, the price of Prevastatin, a drug used to lower cholesterol, was increased from $27 in 2013 to $196 in 2014, while the price of Doxycycline, an antibiotic on the World Health Organization's List of Essential Medicines, was increased from $20 a bottle to $1,849 dollars during the same period, prompting lawmakers to question why the prices of so many generic drugs had increased by as much as 1,000 percent.[97]

No wonder the number one reason Americans declare bankruptcy is medical costs.[98] According to a 2007 national study, 62 percent of all bankruptcies were due to medical bills; most of the debtors had health insurance, were well-educated, owned homes, and had middle-class occupations, yet 92 percent reported medical debts of more than $5,000.[99] While the Affordable Care Act subsequently expanded health care coverage and reduced the number of uninsured, approximately 40 percent of Americans still owe collectors money for medical bills.[100]

With insurers and health care companies refuse to "help out" with the rising cost of health care, American families are being asked to "do it all," overspending on overpriced health care that underdelivers. In fact, Americans spend more on health care than any other country—spending nearly twice as much on health care as other developed countries—yet the United States ranks twenty-six out of thirty-four OECD countries, with higher rates of obesity, diabetes, heart disease, and infant mortality than other developed countries such as Canada, Britain, and Japan.[101] Meanwhile, in yet another effort to further cut health care costs, hospitals are installing self-service kiosks that allow patients to enter their personal information, insurance, and medical history, inviting Americans to do even more of the work in the health care industry.

SELF-SERVICE IS BIG BUSINESS

Did the work transfer in retail and health care lead to better outcomes for Americans? Glazer doesn't seem to think so and I am inclined to agree. There is little measurable evidence to suggest it has improved consumer outcomes in either industry. Then why did it happen? Glazer suggests the retail and health care industries used "cost crises" to justify reorganization of the labor process and the work transfer, yet she also links the self-service trend to a larger problem associated with contemporary capitalism.

In an early section of her book titled "Why Self-Service?," Glazer directly addresses the question of why self-service emerges, examining the various reasons and explanations offered by other scholars. Some social theorists, such as Ivan Illich, link the growth of self-service and unpaid work to the formal economy, arguing that the wage economy relies on an informal, underground economy of work that is unofficial or "off the books," while others use the term to describe the ways in which individuals or communities cope with the growing absence of state-provided social services.[102] Another explanation offered by social critics depicts self-service as an antidote to mass society, "an alternative to mass-produced entertainment and education," suggesting self-service provides a source of "community" and authenticity in a modern world that is increasingly isolating and artificial, while businesses depict self-service as "liberating" customers and allowing them to "choose" between full and self-service across a number of settings.

Ultimately, Glazer finds these various accounts unconvincing, preferring instead an explanation offered by the Belgian economist Ernest Mandel and his critique of postindustrial capitalism. Mandel attributed the growth of services to a fundamental problem of capitalism: finding new ways to expand capital as areas for investment shrink. As business models and markets become saturated, opportunities for investment dry up, resulting in economic stagnation. Moreover, services did not create value the same way manufacturing did; whereas productive labor added value to a commodity, services involved exchanging capital for labor. The solution, Mandel argued, was that the services industry relied on expensive equipment, which in turn created new opportunities for capital investment.

Putting aside neoclassical economics and the largely discredited labor theory of value, Mandel was astute in his observation that the growth of the service industry relied on the production of equipment for service workers, creating new markets for new commodities and opportunities for investment. This was why he disliked the term "postindustrial economy"; in his view, the service economy *expanded* the processes of industrialism and commodification, with service workers (e.g., software programmers) often requiring expensive equipment in order to provide their services (e.g., computers). Accordingly, Glazer notes self-service often relies on expensive equipment, both for businesses and consumers. Entertainment services, for example, depend upon theaters, films, and projectors, while self-service entertainment at home requires televisions, DVD players, and myriad other accessories.

Indeed, self-service does seem to rely on expensive equipment. Oven ranges, lawn mowers, washing machines, and digital printers that allow

American consumers to "do-it-yourself" cost hundreds of dollars, creating a demand for goods from various industries that profit from their sale and maintenance. Self-ordering kiosks such as those being introduced to Wendy's cost upward of $60,000 just to install, while equipment for McDonald's new customizable burger called "Create Your Taste," reportedly costs between $120,000 and $160,000.[103] Likewise, self-checkout lanes such as those found in Walmart and Safeway cost between $30,000 to $60,000 per unit; with most supermarkets offering four self-checkout lanes, that adds up to a sizable investment of nearly a quarter million dollars.[104]

Why are companies willing to invest so much in this technology? Perhaps because it allows them to reduce labor costs through the work transfer. Businesses that supply self-checkout lanes cite a return on investment ranging from 12 to 30 months, while a study from the University of California, Berkeley, estimates that four self-checkout lanes can reduce store operating expenses by $120,000 per year, with the machines paying for themselves in just half a year.[105] Meanwhile, fast-food chain Johnny Rockets estimates that its self-ordering kiosks—each of which represents a $170,000 investment—will pay for themselves in roughly two years.[106]

Clearly, these self-service technologies are expensive—and profitable. Self-checkout suppliers raked in $524.1 million worldwide in 2010, while NCR, one of the largest suppliers of self-service technology, reported $6.5 billion in revenue in 2014, with profits just under $200 million.[107] Meanwhile, the global self-checkout kiosk market size is estimated to grow 16 percent annually from 2016 to 2023 and is projected to be valued at more $18 billion by 2023.[108]

WORK TRANSFER = JOB LOSS?

Yet, whether this translates into job loss is unclear. McDonald's, for example, has repeatedly claimed that adding kiosks won't result in mass layoffs, but will instead move some cashiers to other parts of the restaurant where it's adding new jobs, such as table service, while fast casual chain Panera Bread is using kiosks and mobile ordering technology to add delivery services to 40 percent of its stores.[109] Similarly, a Walmart spokeswoman says the company's decision to expand automated checkouts will have no impact on jobs, or on the hours worked by its employees.[110] And while Home Depot experimented with replacing cashiers with self-checkout lanes, it found it far more profitable to redeploy displaced workers to the aisles assisting customers and boosting sales.[111]

Still, the fear of automation and unemployment is foremost on the minds of many, especially workers. As one supermarket employee explained to a reporter, “These [self-checkout lanes] will take jobs, just like ATM’s took teller’s jobs. I just feel like we are all going to be extinct.”[112] In fact, a recent study estimates that nearly half of U.S. jobs are “at risk” of being automated, many of which are in the service industry.[113] Similarly, an international study of over 700 occupations attributes nearly half of the decline in investment in labor to businesses replacing workers with computers and other forms of information technology.[114]

Labor organizations claim that the self-service trend is not being driven by businesses’ commitment to better service, but by a desire to further cut labor costs and increase corporate profits and earnings. “What it really is is service without the people or the cost of the people. It’s done for the sake of the bottom line,” says Rob Blackwell, former spokesperson for the AFL-CIO.[115] Labor unions view the self-service trend as part of the “jobless recovery” of the U.S. economy in which productivity and profits are increased by cutting staff and using technology such as self-checkouts to displace labor costs by offloading work onto consumers. “People should get a sense that they’re being ripped off when they use self-checkout,” says former UFCW spokesperson Greg Denier, “they’re making me serve myself so they can make more profit off of me. It is the destruction of service in the U.S. economy. . . . Pretty soon (stores) are going to tell customers, ‘For your convenience, we are going to let you unload the trucks.’”[116]

Yet, if Glazer’s thesis is that the work transfer allows companies to transfer paid work onto unpaid consumers, she fails to offer any compelling evidence that it eliminated jobs or increased unemployment. In fact, a quick glance at employment statistics reveals that labor costs in the retail and health care industries have continued to rise as have the number of salesclerks, cashiers, nurses, and assorted medical staff. How can this be?

WHAT COMPUTERS CAN (’T) DO

Perhaps it is because while self-service has effectively transferred some tasks onto customers, it has created a demand for other kinds of work. For example, economic history suggests that while technological innovation may have reduced the demand for certain types of labor it has also created and increased the demand for others in a process Austrian economist Joseph Schumpeter famously referred to as “creative destruction,” describing the way capitalism destroys and reconfigures previous economic orders through advances in innovation.[117] The declining demand for labor in the agricultural sector of the U.S. economy during the late nineteenth and early twentieth century, for example, coincided with growing employment in the industrial sector; likewise, declining employment in industrial production in the mid to late twentieth century coincided with the growing expansion of the service industry and service-related occupations (see table 2.1).[118] Therefore, while self-ordering kiosks may reduce the demand for cashiers at fast-food restaurants like Panera Bread, they may also create new opportunities and tasks such as table delivery and managing online orders.

However, the work transfer is also limited by the ability of self-service technology to automate or transfer certain tasks onto customers. For example, economists studying automation find that while computers may displace the need for certain kinds of skills (e.g., routine manual), they complement others (e.g., nonroutine cognitive), while having little to no effect on other forms of work (e.g., nonroutine manual) in a process described as "skill-biased technological change."[119] For example, routine manual tasks that can be well described and programmed using if-then-do rules (e.g., filling pills into a bottle) are more likely to be automated than tasks involving complex communication (e.g., marketing) or nonroutine manual tasks that cannot be well described using rules (e.g., nursing).

Moreover, researchers find that the use of high-tech equipment may eliminate the need for unskilled work, yet create the need for new skills and jobs to operate and maintain such equipment, suggesting that while self-service technology may eliminate the need for certain tasks—especially routine manual tasks such as ordering—it may also create a demand for others (e.g., monitoring, technical repair).[120] Self-checkout lanes, for example, require an estimated $15,000 a year to operate and maintain as well as staffing to troubleshoot problems, assist customers, and deter theft.[121]

Social, legal, and regulatory structures also limit the ability of businesses to transfer work onto customers. For example, families may engage in self-care, but practicing medicine without a license is illegal, and in some states, considered a felony. Indeed, medicine, law, the clergy, academia, and other professions are essentially "closed" occupations; only those who have received the requisite training and are judged to be competent are allowed to

Table 2.1 Changes in the U.S. Labor Force by Sector

	Percent of Labor Force		
Year	*Agriculture*	*Industrial*	*Service*
1850	80	10	10
1900	40	40	20
1950	10	45	45
2000	2	25	73
2015	<1	13	87

Source: Authors' estimates based on data from the U.S. Bureau of Labor Statistics and U.S. Department of Labor.

work in these jobs, making it difficult if not illegal to transfer work directly onto consumers.

In fact, the process of occupational closure has grown as more and more occupations have attempted to professionalize. Since 1950, the percent of licensed workers has increased more than fivefold, while a recent report by the Brookings Institution finds that nearly one in three workers in the United States require a license to perform their job.[122] While it might make sense to require licenses in some occupations where there is the potential for dire consequences (e.g., medicine, civil engineering), licensing has spread to even nonthreatening occupations such as hair braiding, interior design, and travel guides, closing off more and more occupations and ostensibly limiting the transfer of work to unlicensed consumers.

Yet, self-service technology somehow appears to be jumping these barriers to entry, even within heavily regulated industries. Real estate agents, for example, are required to obtain a license, yet websites such as Homes, Realtor, Trulia, and Zillow provide information to prospective home buyers that was previously limited to realtors and banks (e.g., prices of adjacent properties, mortgage prices), making it easier for potential sellers and buyers to "do-it-yourself." In banking, investment bankers, stockbrokers and financial advisors are required to pass a series of securities exams in order to obtain a license, yet online brokerage firms such as Scotttrade, E-Trade, and TD Ameritrade allow unlicensed persons to buy, sell, and trade stocks, while websites such as LegalZoom allow unlicensed customers to create legal documents such as wills, trusts, and trademark applications without having to hire a lawyer. Even taxi companies are facing increased competition from unlicensed competitors as companies such as Uber and Lyft allow consumers to arrange transportation from drivers who do not have a taxi or commercial drivers' license.

THE (UN)INTENDED CONSEQUENCES OF SELF-SERVICE

However, if self-service technology increasingly facilitates the transfer of work onto consumers, it also opens the door for unanticipated consequences and potential disasters. Popularized by sociologist Robert Merton, the term "unanticipated consequences" refers to outcomes that were not foreseen or intended by a purposeful action.[123] While unanticipated consequences may be beneficial, the term is often used to describe the unexpected, unintended, or negative consequences that result from a given action or change in policy.

For example, consider the industries mentioned in the previous section. One of the factors that caused the 2007–2010 subprime mortgage crisis and led to Great Recession of 2007–2009 was the collapse of a housing bubble resulting from mortgage delinquencies, foreclosures, and the devaluation of mortgage-based securities. While the collapse has been attributed to a variety of causes, several factors include subprime lending, predatory loans, and adjustable rate mortgages made easily available by online mortgage brokers. Previously, prospective home owners had lengthy meetings with loan officers at banks who meticulously reviewed applicants' finances; today, Quicken Loans, the largest online mortgage lender, allows consumers to "buy a home or refinance your mortgage in minutes," using Rocket Mortgage. Similarly, real estate websites such as Zillow and Homes include links for users to prequalify for a loan or contact a real estate agent, while posting housing prices that appear fixed but may in fact vary. While the intended effect of these websites is to attract potential homebuyers, these kinds of self-service websites also made it quick and easy for Americans to buy homes with little or no understanding of the real estate market or how mortgages differ (e.g., fixed, adjustable), contributing to largest economic recession in nearly a century.

Or consider the online trading platforms sold by companies like E*Trade, Scottrade, and Ameritrade. These products not only allow users to directly manage their investments, they also often allow users to build customized algorithms that automate the trading process. Yet, high speed automated trading is precisely what caused the trillion dollar stock market "flash crash" of 2010, as one large sell order set off a flurry of automated high frequency trades, resulting in an unexpected massive sell-off that saw blue-chip stocks drop as low as pennies in a matter of minutes.[124] In fact, an unintended consequence of online trading platforms is that most private trader lose rather than gain money, as industry experts estimate 80 to 90 percent of private investors end up with losses, suggesting most Americans would be better off leaving their savings to the investment firms that specialize in managing financial portfolios.[125]

Or consider self-service taxi companies such as Lyft and Uber. These companies rely on do-it-yourself drivers and allow customers to order car transportation from their mobile devices, purportedly to expand access and lower the cost of personal transportation. Yet, one of the unintended consequences is that while drivers are familiar with their own neighborhoods, many often aren't familiar with the larger metropolitan area in which they live, resulting in trips that are longer, more expensive, and less convenient.[126] Another unintended consequence is safety; by relying on independent "contractors," companies like Uber are able to distance themselves legally in disputes involving accidents.[127] And while Uber claims it rigorously screens driver applicants, critics argue that their methods are less thorough than those employed by taxi services, pointing to numerous cases in which drivers turned out to have criminal records or assaulted passengers.[128] Increased competition from do-it-yourself taxi drivers has also driven down wages in some areas, with some drivers reporting breaking even or losing money on fares.[129] And unlike regulated taxi services that offer fixed prices, Uber uses dynamic pricing that allows prices to fluctuate with demand; unfortunately, this resulted in extreme price increases during emergencies such as Hurricane Sandy, the 2014 Sydney Hostage Crisis, and the 2017 London Bridge attack, making it harder rather than easier for people to quickly get to safety.[130]

All of this suggests that companies' efforts to use self-service technology to lower costs and increase sales may in fact result in unintended outcomes that range from minor inconveniences to life-threatening situations. Yet, if for Glazer self-service represented a work transfer framed around gender and shifting boundaries of paid and unpaid work, for another social theorist it represents a driving force of capitalism and consumer culture that produces paradoxical outcomes, further illustrating the ways in which self-service can result in unintended or "irrational" outcomes.

THE "McDONALDIZATION" OF SOCIETY

Perhaps the most widely recognized theoretical framework regarding self-service is George Ritzer's theory of "McDonaldization" and subsequent writings on the "new means of consumption" and "prosumer capitalism." In his bestselling book, *The McDonaldization of Society*, Ritzer uses the global fast-food chain McDonald's as a contemporary paradigm to explain the process of rationalization, as traditional forms and values are increasingly replaced by rational, calculated ones. Self-service represents one of the ways in which he sees this process of rationalization—or McDonaldization—expanding in the economy, as businesses seek to further lower labor costs by "putting customers to work."[131] First, however, we should briefly examine the basis of Ritzer's thesis and its roots in the theories of German sociologist Max Weber.

Weber used the term *rationalization* to describe the growing shift toward rational and bureaucratic forms of social organization in modern societies, as scientific and economic values and ways of thinking replaced religious and cultural ones, dominating not only human behavior but society in general.[132] Weber, however, was ambivalent toward rationalization; while it offered individuals freedom from restrictive traditions and illogical practices, he also saw it as potentially dehumanizing, using the infamous metaphor of an "iron cage" to describe the ways in which modern, rational societies constrained human behavior through the use of bureaucratic rules and economic ways of thinking.[133] Accordingly, whereas Weber used the iron cage of bureaucracy to describe the growing dominance of calculated, rational, and efficient forms of social organization in modern societies, Ritzer uses McDonaldization to describe similar contemporary forms of rationalization in the present.

Specifically, Ritzer defines *McDonaldization* as, "the process by which the principles of the fast-food restaurant are coming to dominate more and more sectors of American society as well as the rest of the world."[134] Key dimensions of McDonaldization include a growing emphasis on *efficiency*, *calculability*, *predictability*, and *control* through the substitution of humans with nonhuman technology. For example, efficiency describes businesses' laser-like focus on streamlining costs and processes, while predictability describes the ways in which fast-food restaurants and other businesses standardize services in order to create uniform products. By reducing and simplifying the menu, and by standardizing the way in which orders are filled using carefully measured steps and routines, McDonald's makes the process of making hamburgers more efficient and predictable, allowing them to make an identical tasting hamburger in nearly the same amount of time anywhere in the world.

Although the process of McDonaldization may vary within businesses or across industries, two of the methods frequently described by Ritzer involve automation and self-service. Indeed, one of the ways businesses attempt to curb rising labor costs is by "putting customers to work," performing tasks previously done by employees in a manner similar to Glazer's description of the work transfer.[135] For example, ATMs require customers to perform many of the tasks previously performed by bank tellers, while automated customer service phone systems require the caller to navigate a scripted menu of options instead of speaking directly with a customer service representative. However, Ritzer notes that businesses may seek to even further standardize and reduce costs by replacing people with machines:

> The great source of uncertainty, unpredictability, and inefficiency in any rationalizing system is people—either those who work for it or those who are served by it. . . . The basic idea, historically, is for organizations to gain control over people gradually and progressively through the development and deployment of increasingly effective technologies. Once people are controlled, it becomes possible to begin reducing their behavior to a series of machinelike actions. And once people behave like machines, they can be replaced with actual machines.[136]

Just as the assembly line and scientific management increased the efficiency and control over factory workers, McDonaldization suggests similar outcomes can be achieved through the use of self-service and technology, transferring work from paid employees to unpaid customers.

Indeed, today we can see numerous examples of McDonaldization, automation, and self-service across a wide variety of settings and industries. For example, IKEA is able to sell low-priced furniture in massive stores with a minimal staff because consumers effectively work as warehouse employees and factory workers by transporting and assembling the furniture themselves.[137] Healthcare has also become McDonaldized through the use of "doc-in-a-box" emergent care centers that offer fast and inexpensive service by not requiring appointments and offering a limited number of services through the use of "McDoctors" rather than specialists, reducing the time and cost it typically takes patients to receive treatment in the emergency room of a hospital, while websites such as WebMD invite users to self-diagnose or rate and review their physician.[138] Likewise, higher education has become increasingly McDonaldized through the use of standardized texts and prepackaged materials, publications that calculate the value of schools by ranking colleges and programs (e.g., U.S. News and World Report), websites that invite students to rate and review faculty (e.g., RateMyProfessor), and most recently, massive online open courses, or MOOCs, that cut the cost of education by offering free online courses in which students watch recorded lectures at their own pace, work in collaboration with other students on projects and assignments, and receive feedback through automated online assessment or peer review. Even the Internet has become McDonaldized through the use standardized programming languages (e.g., HTML) and browsers (e.g., Chrome), automated search engines (e.g., Google) that produce thousands of results in fractions of a second, and websites that invite users to post, share, and review content (e.g., YouTube, Reddit).

Yet, perhaps the best contemporary example of McDonaldization can be observed through Walmart and the process of "Walmartization" (or the "Wal-Mart effect"), describing the ways in which the corporate giant has further rationalized the retail industry through its sheer size, influence, and power, applying the same principles of McDonaldization (e.g., efficiency, calculability) to a twenty-first-century global economy on a colossal scale while adopting many of the same forms (e.g., automation) and practices (e.g., self-service).[139] In fact, Walmart executives recently announced the company plans to not only increase the number of self-checkout lanes in stores but also introduce cash-counting machines and shelf-scanning robots while using crowdsourced drivers and personal shoppers to expand its grocery delivery service—in effect, supplementing the work of consumers with freelancers and robots.[140]

Clearly, McDonaldization has its advantages, both for businesses and consumers, and perhaps this explains why the process of McDonaldization has spread so quickly and extensively throughout society. For example, it offers faster, more efficient services to a population that is working longer and commuting farther distances, and allows customers to do things at non-standard times that were previously unavailable (e.g., withdraw cash from an ATM, access library materials).[141] It also expands the availability of goods and services by lowering costs, and treats customers similarly without regard to gender, race, or social class, while offering the comfort of predictability in an increasingly unpredictable world.[142] Likewise, the process of McDonaldization benefits businesses by reducing labor costs through the process of standardization and the use of self-service; by simplifying and standardizing tasks, businesses can rely on cheaper, less skilled labor, while self-service allows businesses to further reduce labor costs by passing paid work onto unpaid customers.

DISENCHANTMENT AND THE IRRATIONALITY OF RATIONALITY

The disadvantages of McDonaldization, however, can be traced back to Weber and his ambivalence regarding the rationalization of society. While rationalization introduced economic advantages and order through the use of bureaucratic and formal forms of authority, it also created a cold, calculated world, reducing people to "cogs in the machine" and replacing the mystical and enchanting aspects of society with the secular and scientific. Adapting the concept of "disenchantment" from the German philosopher Friedrich Schiller, Weber feared the rationalization of society would result in an increasingly disenchanting world, as the "great enchanted garden" of traditional society and sublime phenomena such as religion and creativity were replaced by the "polar, icy darkness and hardness," of impersonal bureaucracies and rational-legal forms of order.[143]

Similarly, Ritzer uses the term *irrationality of rationality* to describe the ways in which rational systems can result in irrational outcomes that are disenchanting or dehumanizing. First, and perhaps most generally, the term suggests a paradox in which efforts to be rational can result in irrational outcomes, leading to inefficiency, unpredictability, incalculability, and loss of control. For example, businesses that seek to reduce the labor costs of low-wage workers through automation may find that they end up increasing costs because the technology requires skilled workers to operate and maintain it. Self-checkout lanes and self-ordering kiosks might displace some low-wage workers, yet they come with a hefty sticker price and require tens of thousands of dollars to operate and maintain. Yet, in another sense, the irrationality of rationality can also mean that rationality leads to unreasonable outcomes, that is, those that threaten or demean humanity, similar to the ways in which Weber saw bureaucracies as impersonal and dehumanizing. For example, efforts to rationalize sales transactions through automation and self-service may be more cost-efficient but frustrating and dehumanizing for customers. Home Depot learned this lesson first-hand when it tried to cut costs by replacing cashiers with self-checkout lanes, while several supermarket chains removed self-checkout lanes from their stores citing concerns over customer service and satisfaction. This, in turn, suggests a third interpretation linked to the concept of disenchantment; self-service may offer a more rational and efficient method of providing goods and services, but at the risk of eroding the magic or pleasure associated with shopping, transforming leisure into work.

HOW TO ENCHANT A DISENCHANTED WORLD?

If McDonaldization and its rationalizing process risks producing irrational outcomes that disenchant consumers, then ostensibly one might conclude that rationalization, to paraphrase Karl Marx, sows the seeds of its own destruction. Yet, clearly this isn't the case; highly rationalized businesses such as McDonald's continue to attract millions of customers annually. This raises an interesting question: how do businesses solve the problem of disenchantment that can result from such rationalized settings?

In *Enchanting a Disenchanted World*, Ritzer addresses this dilemma by examining the ways in which businesses revolutionize and transform themselves into "cathedrals of consumption," using spectacles, simulations, and other quasi-magical gimmicks to reenchant dispirited customers. Like religious cathedrals, *cathedrals of consumption* offer "increasingly magical, fantastic, and enchanted settings in which to consume," creating settings and environs that attract consumers.[144] Examples include theme parks (e.g., Disney), cruise ships (e.g., Carnival), casinos (e.g., the Venetian), electronic shopping centers (e.g., Amazon), and other "new means of consumption" (Ritzer uses the terms interchangeably) that combine previous forms of consumption, and in some cases, become destinations themselves.

For example, Disney World combines films, merchandise, hotels, live performances, food, and entertainment, bundling an array of economic activities into "a magical experience" that draws upon childhood memories, favorite films, and amusement parks to create a titillating fantasy world that spans nearly 40 miles, roughly the size of San Francisco; with more than 20 million visitors in 2016, it is the most visited attraction in the world.[145] Likewise, the Italian-themed Venetian Resort Hotel Casino avoids being just another casino on the Las Vegas Strip by combining a dizzying array of activities and settings, including a Parisian-themed opera house, four theaters, a nightclub, and a beach complete with cabanas stocked with televisions, video game systems, and myriad other accessories. Just the name itself—Venetian Resort Hotel Casino—signifies the extent to which it merges various consumption activities and settings under one roof.

If malls have become increasingly disenchanting places for Americans to shop—how many malls closed in past years—there are a number of growing online retailers or "cybermalls" offering an unprecedented array of consumer goods; Amazon, for example, sells approximately 480 million different products in the United States.[146] Yet, some brick and mortar cathedrals of consumption still attract consumers; Walmart, for example, is not only the largest employer in the United Stated but also the largest retailer, with $350 million in sales in 2015.[147] Walmart's stores also combine an impressive assortment of goods and services; Walmart Supercenters, behemoths the size of two city blocks in New York City, include grocery and produce, general merchandise, vision centers, automotive services, fast-food restaurants, portrait studios, and hair salons just to name a few, while "smaller" Walmart Neighborhood Markets offer tens of thousands of different products and services including fresh produce, health and beauty aids, photo developing services, drive-through pharmacies, pet supplies, office supplies, and household chemicals.[148]

The irony, however, is that in order for these cathedrals of consumption to be enchanted, they also must be highly rationalized. As such settings attract more and more consumers, their magical qualities have to be reproduced with factory-like efficiency. Furthermore, as brands expand locations, the enchanting magical qualities have to be systematically reproduced, requiring bureaucratic rules, standards, and procedures—the very process of rationalization itself. According, "the challenge for today's cathedrals of consumption, is how to maintain enchantment in the face of increasing rationalization."[149]

SPECTACLES, SIMULATIONS, AND SPEED-UPS

Ritzer addresses this problem by drawing upon an eclectic array of postmodern theories concerning spectacles, simulations, and the compression of time and space to demonstrate how these sorts of quasi-magical phenomena serve to distort, distract, and reenchant consumers in such rationalized settings.

To a certain degree, businesses have always relied on spectacles to attract customers; examples include the "dream worlds" of exotic fantasy and adventure created in department stores such as Selfridge's as well as theme parks such as Disney's Magic Kingdom.[150] However, these spectacles were meant to attract customers. Drawing on the work of Guy Debord and his book *The Society of the Spectacle*, Ritzer argues that the true purpose of the spectacle is to disguise or mask the "rationality of the system." In other words, department stores and theme parks create an array of spectacles to hide the fact that they are in fact highly McDonaldized profit-seeking businesses dressed up in a façade of fantasy and glamour.

Another way businesses can reenchant customers is through the use of "simulations," a concept popularized in the writings of Jean Baudrillard. Whereas *simulations* describe the mass-produced replicas of real-life phenomena associated the modern era, Baudrillard observed an emerging *simulacra*, or simulations that do not correspond to a current or previous reality, freeing businesses from the constraints of reality. Today, we can see all sorts of simulations in consumption settings, ranging from casinos that simulate historical periods and places (e.g., Venetian, Luxor), to video games that simulate military combat (e.g., Call of Duty), to rides that simulate events in books and films (e.g., Pirates of the Caribbean, Tom Sawyer Island), as well as simulacra that correspond to no existing reality but nevertheless draw millions of dollars in sales.[151] The popular Pokémon franchise, for example, has expanded from trading cards into an animated series, feature films, video games, and theme parks, raking in more than $2 billion in 2015.[152]

Yet, a third way cathedrals of consumption can manipulate customers is by distorting the passage of time. Drawing on the work of postmodern social theorists Anthony Giddens and David Harvey, Ritzer points out how cathedrals of consumption such as casinos mask and distort the passage of time, allowing the business to operate virtually 24 hours and keeping players at the tables.[153] How do they do this? By removing all clocks, eliminating windows, and running continuously, casinos operate in a dreamlike world different from many other places that run according to timed scheduled (e.g., train stations, libraries). Moreover, by distorting time, players are able to play longer and are more likely to forget about other obligations or reflect on how much time they have spent gambling.

Accordingly, if both McDonaldization and these cathedrals of consumption rely on self-service as Ritzer suggests, how might self-service use spectacles, simulations, and other forms of "magic" to attract or distract customers? First, one could argue that self-service technologies are themselves physical spectacles, with autonomous parts, digital screens, and automated voices. In some instances, they are prototypes of new technology, making them a novel sight and experience for consumers. Moreover, self-service technology is also frequently promoted with spectacular promises of "shorter lines," "greater convenience," and "faster checkout," obscuring the disenchanting fact that they invite consumers to do more of the work in exchange for little or nothing at all of measurable value.

Self-service technology may also enchant customers through the use of simulations and distortions of time and space. For example, self-checkout lanes are promoted as being faster and more convenient, yet numerous experiments conducted by various independent groups suggest that such gains are largely illusory.[154] In other words, self-checkout lanes may simulate speed even if they aren't objectively faster than conventional human-operated cashiers. Self-service also simulates control by presenting customers with a set of options, yet all of the options are pre-programmed, giving the consumer the illusion that they are in control when in fact they are choosing from a pre-selected array of options. Moreover, because consumers are kept busy performing a number of tasks, time seems to go faster, distorting consumers' sense of how much time is actually spent. Yet, if these new means of consumption function to seduce and reenchant consumers, they also serve to further control and exploit the consumer.

CONTROLLING AND EXPLOITING CONSUMERS

While Ritzer uses the terms "cathedrals of consumption" and "the new means of production" interchangeably, they each have a different set of connotations, if not origins, in social theory; the former reflects Weber's thinking regarding rationalization and religion, while the latter is derived from the work of Karl Marx. Specifically, Marx used the term "means of consumption" to describe the class-based differences in the goods and services consumed; the capitalist class enjoyed luxury goods, while the working class subsisted on whatever they could afford.[155]

The problem, Ritzer argues, is that there is a logical problem in the way Marx uses this term, especially when compared to his similarly phrased concept "means of production." For example, the means of production inhabit an intermediary position between workers and products, describing not only the tools and equipment needed to produce commodities but the process by which workers were controlled and exploited; the means of consumption, on the other hand, describe not means but the end products themselves.[156] Accordingly, Ritzer redefines the *means of consumption* as those things that make it possible for people to acquire goods and services and for the same people to be controlled and exploited as consumers.[157] This, in turn, raises an important question: how do businesses control and exploit consumers?

First, one can argue that businesses control and exploit workers by forcing them to "labor in," requiring them to perform unpaid work in order to obtain goods and services.[158] This is an essential aspect of self-service; consumers are doing a portion of the necessary work whose value is appropriated by the business. Consumers who use self-service don't receive cheaper groceries, hamburgers, movie tickets, or airfare; they're being put to work—albeit temporarily—under the guise of service. So, exactly how much is the average consumer being exploited?

Americans average 1.5 trips to the grocery store per week, spending an average of approximately 4 minutes waiting in the checkout line at supermarkets, and take an additional 30 to 40 seconds to pay for their purchases;

cashiers, meanwhile, earn a median hourly wage of $9.70.[159] Assuming that it takes the average shopper just as long to navigate the self-checkout lane—a generous assumption given numerous reports that it takes even longer—that comes out to 324 minutes, or $52.38 worth of unpaid labor per year—and that's just the grocery store. Add in ATMs, gas stations, ticketing kiosks, and online airline and hotel reservation websites, and the numbers—and dollars—quickly add up.

Self-service also controls consumers the same way it controls workers, using bureaucratic rules and procedures as well as technology, and directly intervening if necessary. For example, many forms of self-service require consumers to navigate a series of menus or screens with a fixed number of options, requiring them to make selections or enter specific information. Customers must enter their personal information and payment details in order to conduct transactions online, while consumers using self-checkout lanes are prompted to perform a series of tasks by the computer; failure to do so in either case brings the transaction to a complete halt. Like the impersonal bureaucracy described by Weber, kiosks and websites are at their fundamental core computers, and computers largely run according to a formal logic comprised of rules and sequences, implying that unless businesses offer in-person or online services or assistance, consumers are trapped in a veritable "iron cage."

Yet, consumers are also subjected to various forms of technical control; self-checkout lanes, for example, operate at their own pace and will halt the transaction if consumers do not respond in a timely fashion, while inactivity at self-ordering kiosks or websites may result in the consumer having to start the entire transaction over again. And, in some cases, failure to comply with directives may result in direct intervention; repeated failure to remove an item the conveyor belt, for example, will prompt a self-checkout lane to signal for assistance. In each of these ways, consumers are subordinated to self-service technology, forced to "labor in" in specific ways and at a certain pace in order to receive goods and services.

WHO'S DOING ALL THE WORK AROUND HERE?

As consumers increasingly become producers of the very goods and services they are consuming, spheres of production and consumption become increasingly blurred or cojoined in a process Ritzer refers to as "prosumption," a portmanteau of production and consumption originally coined by futurologist Alvin Toffler in *The Third Wave*.[160] Yet, if prosumption is not entirely new, recent innovations (e.g., Internet, automation) have opened the door to new forms of prosumption that potentially threaten to further displace producers and consumers alike. Substituting paid workers with the unpaid work of "prosumers," Ritzer suggests these new means of prosumption will result in significant job loss since businesses will require "few, or at least fewer, paid employees."[161]

Whether or not this is true remains debated, if not yet undetermined. For example, Jerry Davis' research on the "shrinking" American corporation finds that the most valued American companies are indeed relying on significantly smaller workforces. Moreover, a quick glance at these companies reveals many that rely on consumer input and content (e.g., Yelp, Facebook). And, as we learned earlier, fast-food restaurants such as McDonalds are able to operate with half the staff as full service restaurants precisely because a portion of the work is done by customers.

Yet, if this is the case, as MIT economist David Autor recently asked, "Why are there still so many jobs?"[162] For example, he notes a study that found while the number of ATMs in the United States quadrupled between 1995 and 2010, the number of bank tellers actually increased by 10 percent between 1980 and 2010.[163] By reducing the cost of operating a bank, ATMs increased the demand for tellers by expanding the number of bank branches, freeing up tellers to focus on sales, loans, and other forms of "relationship banking." Or consider Glazer's focus on the work transfer in health care; women and their families may be doing more of the caregiving than in previous decades, but it hasn't done anything to slow the increase in the number of home health aides, medical assistants, or occupational therapists. In fact, according to the BLS, those are among the fastest growing occupations.[164] Consumers may be doing more of the work, but there's less evidence that they're eliminating jobs.

While the significant changes in employment in the health care industry are likely due to increasing demands in health care (e.g., aging Baby Boomers) and changes in health care policy (e.g., passage of the Affordable Care Act in 2010), the changes in employment in other industries in which self-service technologies have been introduced appear to be negligible, with little evidence of significant job loss or decline in the average size of establishments (see Table 2.2). Even when we control for population growth, the number of jobs per capita in these industries still appears relatively unchanged (see Table 2.3). If ATMs, self-checkout lanes, and similar self-service technologies were in fact eliminating jobs in significant numbers, one would expect to see more than a fractional reduction in employment. Cashiers, for example, comprise the largest occupation within the retail industry; if self-checkout lanes were eliminating those jobs, we would expect to see significant reductions in employment and the average size of retail establishments—but we don't. In fact, the only way these technologies could be eliminating jobs without drastically affecting employment patterns would be because they

Table 2.2 Private Sector Employment and Average Size of Establishments in Selected Industries and Years

NAICS Code	Industry Name	Employment 2001	2003	2005	2007	2010	2013	2016
44–45	Retail trade	15,179,753	14,930,765	15,256,340	15,509,017	14,481,324	15,073,504	15,824,396
52	Finance and Insurance	5,642,689	5,782,062	5,912,592	5,992,373	5,486,241	5,625,736	5,826,386
62	Health care and social assistance	12,966,103	13,721,850	14,335,141	15,148,606	16,196,009	17,574,893	18,887,301
72	Accommodation and food services	10,100,636	10,345,336	10,871,471	11,373,660	11,103,075	12,165,508	13,318,703

Source: Based on average annual totals from the Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics.

Table 2.3 Private Sector Employment Per Capita in Selected Industries

NAICS Code	*Industry Name*	*Employment Per Capita*							*Total Change*
		2001	*2003*	*2005*	*2007*	*2010*	*2013*	*2016*	*2001–2016*
44–45	Retail trade	0.053	0.051	0.052	0.051	0.047	0.048	0.049	– .004
52	Finance and Insurance	0.020	0.020	0.020	0.020	0.018	0.018	0.018	– .002
62	Health care and social assistance	0.045	0.047	0.049	0.050	0.052	0.056	0.058	+ .013
72	Accommodation and food services	0.035	0.036	0.037	0.038	0.036	0.038	0.041	+ .006

Source: Based on average annual totals from the Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics and data from U.S. Census Bureau.

are creating new ones in a Schumpeterian process of creative destruction. As Autor and others have pointed out, the skills and types of work these technologies tend to eliminate (e.g., routine manual) are less expensive than the ones they enhance (e.g. nonroutine cognitive) or for which they increase demand (e.g., expert thinking, complex communications), and often involve costly equipment and maintenance.

Irrational outcomes and unexpected consequences might also be limiting the effect of self-service on employment. Paid work, after all, is what provides wages; if businesses were to eliminate jobs they would also, in effect, be eliminating potential sources of income. For example, when Henry Ford asked UAW leader Walter Reuther, "How are you going to get those robots to pay your union dues?" Reuther famously replied, "Henry, how are you going to get them to buy your cars?"[165] Businesses may also be hesitant to replace workers with machines because of the potentially disenchanting effect it may have on customers; recall Home Depot's disaster when it experimented with replacing cashiers with self-checkout lanes. Today, the retail industry remains incredibly competitive with slim profit margins that depend on sales volume; one bad experiment with self-service could prove damaging, if not fatal, to a company's market share and stock price. And in some cases, self-service may actually be more expensive than expected; the kiosks being introduced by McDonalds and other chains cost as much as $170,000 and require tens of thousands of dollars to operate and maintain. Whether or not they will be cheaper than hiring minimum wage workers remains to be seen.

SUMMARY

To summarize, I argue the growing trend of self-service can be viewed as an extension of the second shift, as social expectations to perform unpaid work are spreading beyond gender roles and the home to male and female consumers alike, further eroding boundaries between work and leisure and contributing to perceptions of overwork amid historic gains in free time.

Why is this happening? Both Glazer and Ritzer suggest the self-service trend is being driven by businesses' desire to cut costs and increase profits, and while they offer somewhat different theoretical models each essentially involves "putting customers to work." Glazer's work transfer suggests that self-service is used to transfer work onto largely paid female workers and unpaid female consumers, while Ritzer conceptualizes self-service as a new dimension of a broader process of rationalization.

The end result, however, is less clear; both suggest that self-service results in job loss, yet the very jobs they describe have only continued to increase in number, suggesting that self-service may perhaps be limited by unintended consequences or irrational outcomes. Moreover, Ritzer's work suggests that further efforts toward rationalization such as self-service may result in disenchantment, raising the question as to how businesses persuade consumers to "labor in." Meanwhile, Hochschild's work serves to remind us that consumers are not unquestioning dupes but active, conscientious beings who may choose to avoid, help out, resist, or try to "do it all," raising the question as to how consumers perceive and cope with self-service.

In the following chapter, I outline why I chose to focus on self-service in the retail food industry and in particular, the self-checkout lane. In addition, I describe a case study I carried out examining the introduction of self-checkout lanes in a major supermarket chain, and the managers, union leaders, employees, and customers I spoke with in the course of my research.

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Chapter 3

Supermarkets, Self-Checkout Lanes, and Self-Service

Given the number and variety of settings in which we now find self-service, it is perhaps worth explaining why I chose to focus on supermarkets, and in particular, self-checkout lanes. After all, there are a myriad number of fascinating examples and settings, ranging from the new "build-your-own-burger" digital kiosks at McDonald's to the timeless do-it-yourself practice of picking strawberries at a roadside farm. However, I think there are a number of reasons that make examining the introduction of self-checkout lanes in supermarkets a compelling example.

First, unlike many other settings in which we increasingly find self-service, the supermarket is itself an innovation of self-service. Patented in 1917, Clarence Saunders opened the first self-service store—and in essence, the modern supermarket—in Memphis, Tennessee, offering lower prices on goods to customers who were willing to select items from arranged displays and carry their items in a basket to the cashier for payment. Designed to reduce the costly overhead of idle, unproductive clerks, Saunders's self-service store was essentially an assembly line turned inside out; instead of the products moving down the assembly line, the customer moved down the aisles, decentralizing the work process into many hands instead of collecting it in the hands of just a few clerks.[1] Since then, supermarkets have added further dimensions of self-service including shopping carts for customers to carry items throughout the store and to their cars, and more recently, self-checkout lanes and wireless price scanners. Accordingly, while we may find self-service in a growing number of industries and settings, self-service is a basic principle of the modern supermarket, making it a natural setting for studying the effects of self-service.

A second reason for focusing on supermarkets is because they are explicitly mentioned in the works of each of the figures whose ideas on self-service and unpaid work were presented in the previous chapter. Nona Glazer, for example, focused on supermarkets as one historical setting of the work transfer, while George Ritzer described various aspects of the McDonaldization of grocery stores as well as the growing role of self-service technology that requires consumers to "labor in."

If self-service is being used to replace workers with consumers as Glazer, Ritzer, and others suggest, supermarkets were also an excellent site to study because they employ a majority of the types of workers likely to be affected, specifically cashiers. According to the U.S. Bureau of Labor Statistics, supermarkets employ more cashiers than any other industry—nearly as many as the next two industries combined—while cashiers represent approximately one-third of all supermarket employees (see table 3.1).[2] Therefore, while retail stores and fast-food restaurants may be increasingly adopting self-service technology, its effects on the cashier occupation are likely to be most visible in the retail food industry where their concentration is highest.

Supermarkets also face stronger incentives to automate or reduce labor costs relative to other industries that offer self-service. Unlike retail stores and fast food restaurants, supermarkets frequently employ unionized workforces, exposing the industry to rising labor costs as well as expensive labor disputes and work stoppages. For example, the 2003 UFCW strike in California cost the supermarket industry an estimated $2 billion, resulting in the sale of one major chain and the indictment of another on federal charges of labor law violations that eventually led to a $70 million settlement.[3]

Similarly, supermarkets face growing pressure from nonunion competitors that can offer lower prices through reduced labor costs. In fact, growing competition from nonunion chains such as Walmart is precisely what caused the 2003 UFCW strike.[4] Entering the retail food market in 1988, Walmart quickly became the largest food retailer in the United States, reaching $56 billion in 2001.[5] Today, Walmart controls roughly one fifth of the U.S. retail food

Table 3.1 Industries with the Highest Levels of Cashier Employment

Industry	*Employment*	*Percent of Industry Employment*	*Hourly Mean Wage ($)*
Grocery Stores	867,920	32.24	10.72
Gasoline Stations	610,970	66.3	9.83
Other General Merchandise Stores	414,890	21.82	10.46
Restaurants and Other Eating Places	313,810	3.05	9.79
Department Stores	283,920	20.74	9.93

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, Occupational Employment and Wages, 41–2011 Cashiers, May 2016. https://www.bls.gov/soc/2018/major_groups.htm#41-0000.

market, while online retail giant Amazon stands poised to enter the market with its recent purchase of Whole Foods for an estimated $13.7 billion, suggesting pressure from nonunion competitors is only going to increase.[6]

Supermarkets are also where most Americans are most likely to encounter self-service on a recurring basis. According to the Food Marketing Institute (FMI), shoppers average two visits to the grocery store each week, making a trip to the grocery store one of the most frequent routines in Americans' lives.[7] And with over 90 percent of U.S. supermarkets offering self-checkout, Americans are more likely to encounter self-service technology in the supermarket than at the airport, hospital, hotel, or fast food restaurant.[8] In fact, according to national time use statistics, the average American spends more time shopping than they do on housework, preparing food, eating meals, or answering phone calls, or email.[9]

Here again the work of Arlie Hochschild and Juliet Schor raises questions regarding self-service and time use. For example, self-service is frequently advertised as being "faster" and "more convenient," suggesting it might alleviate some of the burdens of grocery shopping and the second shift. Yet, self-service implicitly relies on the unpaid labor of consumers, suggesting it may instead contribute to perceptions of being overworked. Do Americans perceive self-checkout lanes to be helpful innovations that speed up their shopping trip, or do they view them as yet another unpaid chore taking up their time? Given the time and frequency with which Americans go grocery shopping, the self-checkout lane in the supermarket seemed like the best place to examine this question.

A final reason for focusing on supermarkets is serendipity. My interest in self-checkout lanes just happened to coincide with their recent adoption by a major regional chain in my neighborhood, providing me with a unique window into their introduction into stores. As I will explain in the following section, through introductions from the store manager of my neighborhood store, I was eventually able to gain access to seven different stores that had introduced self-checkout lanes within the previous two years. Inside these stores (and the occasional parking lot), I was able to observe and interview store managers, cashiers, and customers, providing me a unique firsthand view that I couldn't get from newspaper articles or official statistics. I also happened to begin studying self-checkout lanes just as retail stores and supermarkets began to adopt them nationwide in increasing numbers; while only a fraction of stores had introduced them prior to my study, by the time I was finished more than nine out of ten stores had adopted self-checkout lanes, placing me in the midst of a major retail experiment in self-service.[10] In short, I was in the right place at the right time to see what was happening in stores, both firsthand at the local level as well as nationwide.

SUPERFOOD: A CASE STUDY

While some of my findings were gleaned from combing through official employment statistics, industry reports, and newspaper articles, much of the information I gained was collected firsthand in a case study of a regional supermarket chain I refer to as "SuperFood."[11] Located in the Mid-Atlantic and Northeast regions of the United States, SuperFood operates over 150 stores and employs approximately 27,000 people.[12] In the state where I conducted the study, SuperFood was the largest employer, controlling roughly a third of the $4.2 billion retail food market in the state's metropolitan areas. The seven stores I studied straddle two counties bordering a major U.S. metropolitan city and included much of the city's outlying suburbs and residential neighborhoods (see table 3.2). Within each county, SuperFood was among the top ten employers, meaning it left a sizeable footprint in both the state and local labor markets.

Gaining access to the stores, however, was not as easy as I first imagined. Supermarket chains, like other large organizations, are fundamentally bureaucracies, so I decided to start at the top by contacting the director of public relations, explaining who I was and why I was asking for access to local stores and including a copy of the institutional review board (IRB) approval of my project. For those who may not be familiar with the formalities of conducting social research, any research involving human subjects has to first be approved by an IRB in order to ensure there are minimal risks and that projects follow proper guidelines. Following numerous cases involving the abuse of human subjects (e.g., Tuskegee Syphilis Study), in the 1970s and the 1980s the federal government adopted a series of rules and regulations governing the use of human subjects in research referred to as the "Common Rule," including the three "golden rules" of do no harm, informed consent,

Table 3.2 Demographic Characteristics of Sampled Counties

Demographic Characteristics	*New London*	*Meadowview*
Total Population	884,764	1,005,087
Race		
White (%)	21.40	56.20
Black or African American (%)	63.80	17.40
Asian (%)	4.30	14.30
Education		
High school graduate or higher (%)	85.60	90.50
Bachelor's degree or higher (%)	30.40	54.40
Income		
Median household income ($)	73,856	98,704
Median family income ($)	84,835	117,373

Source: U.S. Census Bureau, 2010–2014 American Community Survey 5-Year Estimates.

and voluntary participation. Public and private institutions that receive federal funding are now required to abide by these guidelines or risk federal funds and disciplinary action. My study, however, posed "minimal risk"; all I was asking to do was observe and interview employees and customers about their shopping patterns and preferences. Yet, while the IRB quickly approved my research proposal, I was getting nowhere with SuperFood; despite numerous emails including information verifying my bona fides, I wasn't getting a response from anyone at the corporate level of the organization.

So, I decided to start closer to the bottom of the organizational pyramid by visiting my neighborhood store, clutching my newly printed business cards that I hoped would provide me with a modicum of legitimacy. I approached the customer service desk, introduced myself, and asked to speak with the store manager only to be told that he was currently unavailable. Feeling rebuffed and defeated, I left my card with the clerk and walked back to my car only to receive a call back the following day. It turned out that the store manager, Barry, had a nephew who had attended the same university where I was currently a graduate student, and after some initial small talk he wanted to know exactly what I was asking permission to do. I explained that a dissertation was a sort of "very, very long paper," and that I needed to collect some data from stores in order to write it. I also mentioned that I was interested in understanding how supermarkets worked, and that I was specifically interested in the growing adoption of self-checkout lanes in the retail food industry. Thinking he was about to politely decline, I was surprised when Barry asked when I wanted to come over to the store and meet with him. I was in.

FOOD STORE FIEFDOMS

Looking back, while perhaps a minor detail or coincidence, the connection with his nephew may have made all the difference. By doing me a favor, he was, in a sense, helping someone like his nephew who had once attended the same university, making us connected through some sort of "six degrees of separation."[13] In fact, Barry ended up being the most important person I met in my research because he was willing to vouch for me and put me in contact with other store managers, who in turn, opened their doors to me and connected me with other managers. Sociologists refer to this type of currency as *social capital*, highlighting the value and importance of social networks and direct and indirect connections. Accordingly, while some researchers rely on publicly available data, studies involving specific groups or settings often require having some sort of access or entrée, especially those that are "closed" worlds to outsiders. For example, Ashley Mears' previous career in the fashion modeling industry helped open doors for her study of celebrity VIP clubs, while a neighbor provided Patricia Adler with a view into the underground economy of drug trafficking.[14] While perhaps neither as glamorous nor as illicit as the previous examples, I was in effect asking Barry to bend the rules and let me into his store.

I say "his store" because as I came to learn, store managers essentially ran their stores like little fiefdoms; as long as they met certain quotas regarding sales volume and other metrics, and abided by corporate policies as well as the labor contract with the local union, Barry and other managers were largely left to run the store as they saw fit. Indeed, stores were like little kingdoms unto themselves, each unique in certain aspects such as age and size but with a clear hierarchy and respective sections of turf. If the store managers were the kings and queens of the kingdom, the assistant managers were the second in command, responsible for the actual day to day operations of the store. Below them were a half dozen or more barons, counts, dukes, duchesses, and earls in the form of bakery, deli, floral, meat, produce, and front end managers who were responsible for their respective areas of the store, with layers of supermarket serfdom below them in the form of night stockers, produce clerks, meat cutters, cake decorators, and cashiers just to name a few. In my eyes, as an outsider and the most recent entrant into the kingdom, I was the lowest person on the totem pole; yet with the approval of the store manager, I was free to move about the kingdom in my quest to collect data for my research.

SAMPLES: MORE THAN JUST THE FREE TASTES AT THE SUPERMARKET

If getting into stores was initially the hardest part of my project, the second hardest part was trying to get a representative sample of stores, employees, and customers. Sampling in the social sciences is somewhat akin to sampling pieces of cake or pizza; the way you cut a slice determines the degree to which it accurately reflects the larger whole. I wanted the stores and people I interviewed to be as representative as possible of the larger population of shoppers and SuperFood store locations, but I only had a limited amount of time and resources at my disposal. Without a large grant from the Carnegie Corporation or the National Science Foundation, I was essentially operating using my own income, which at $14,000 was roughly half the U.S. median personal income. Moreover, I was juggling research with my graduate studies which meant that I had to be on campus several days of the week in order to attend classes, meet with faculty advisors, and work as a graduate assistant teaching undergraduate classes or helping faculty with grading. So, I tried to spend as much time as I could in as many stores as I could gain access to over a period of roughly eight months, attempting to balance various factors (e.g., neighborhood demographics) against the opportunities that were made available to me (e.g., stores to which I had been provided access).

As with any sample, it is less than perfect but I was able to include a number of stores that differed in age, clientele, location, and size. The Parkview store, for example, was roughly a third of the size of the Expressway Plaza location but was a completely brand new installation located in an upscale, semi-urban setting where retail space was significantly more expensive. Aside from the older, more affluent residents, Parkview also drew on a number of white-collar professionals who regularly shopped there during lunch or the rush hour after work. The Expressway Plaza, on the other hand, was an established store located in a large suburban shopping center. Adjacent to a shopping mall and located roughly a mile from the state university, it drew on a comparatively younger and less affluent crowd consisting mostly of local residents and college students. Meanwhile, the Century Village store was located next to a large retirement community and served a predominantly older clientele that frequently shopped with family members, neighbors, or home health aides. These differences were noted not just by me but also by managers and employees in interviews, and, in some instances, influenced how stores presented and located self-checkout lanes. For example, the self-checkout lanes were moved in Century Village—at great cost—after older shoppers complained that they had to go out of their way to avoid their use, while I was told advertisements published prior to the opening of the Parkview store listed them as a store feature.

While neither a statistically representative nor a random sample, efforts were made to introduce variation and to control for potentially confounding variables such as store location, neighborhood demographics, day of week, and time of day. Interviews and in-store observations were carried out on different days of the week and at different times of the day, taking care to include mornings and afternoons as well as peak rush hour and evening hours. A similar effort was made to include demographic variation into the sample by sampling subjects varying in age, sex, and race. For example, although research indicates that shopping is predominantly performed by the female head of household, efforts were made to include male shoppers as well as couples. Accordingly, I undertook efforts to interview solitary shoppers as well as married couples, families, and single parents with children as well as persons varying in age and ethnicity (see table 3.3).

Within stores, I interviewed customers at different locations, approaching customers in the aisles, while they waited in line, or as they departed the store. Although I did not keep an exact tally of response rates, I would estimate that more than half of the customers I asked were willing to participate, a response rate well above those frequently observed in survey research.[15] Because of the relatively small size of my sample and potential nonresponse bias, I later compared customers' responses against larger, national surveys of customer attitudes and preferences. For example, shoppers that were willing to talk to me might also have been those who felt less pressed for time or those with

Table 3.3 Demographic Characteristics of Customers Sampled

Demographic Characteristics	*Percent of Customers Sampled*
Age	
18–34	52.6
35–54	15.8
55+	31.6
Sex	
Female	66.7
Male	33.3
Race/Ethnicity	
White	73.7
Black	15.8
Hispanic/Latino	7.0
Asian	3.5
Marital Status	
Single	29.8
Married	59.6
Divorced/Widowed/Other	10.6

Source: Based on author's calculations.

young children, groups that are more likely to feel overworked. Therefore, I went out of my way to include different types of customers, ranging from the speedy single item shopper to the mother of two children with an overstuffed shopping cart. And although some of my findings contradict those of similar retail studies, I feel that in certain ways my sample may have been less biased in other respects since I was not conducting the study on behalf of a private company or supplier of self-checkout lanes.

Periods spent interviewing customers were alternated with periods spent observing transactions at the checkout lanes. Most stores provide benches near the exits which provided an excellent view of the checkout area. Taking note of the time, I would then spend approximately an hour observing and taking notes on checkout transactions and staffing, counting the number of cashier lanes open, the number of customers using self-checkout to complete their transactions, and the frequency with which customers required assistance using the self-checkouts. These field notes were used to help assess how stores actually staffed the self-checkout lanes in practice and how often customers encountered problems using them.

THE TIMES THEY ARE-A-CHANGIN': THE POLITICS OF RETAIL INNOVATION

The participants in the case study consisted of mainly three social categories or groups: (1) employers (i.e., managers), (2) employees (i.e., cashiers), and

(3) customers. I chose these three groups not only because they were directly involved with the use of self-checkout lanes but also because previous research suggested these groups represented key stakeholders in retail innovation. Reviewing several major historical changes in the retail food industry, sociologist John Walsh noted that the adoption of new technology in the workplace was not just an economic issue but a social and political one as well:

> Technological change is more than simply the advance of science or management's desires to wrest knowledge and control away from the workers. Innovations upset the established social relations within an organization and between the organization and other organizations in its network. Technological change is thus not just a scientific process or an economic process. Rather it is both a social process and a political one . . . in that the different groups affected by the change have vested interests in the outcome and will be variously able to influence that outcome.[16]

In other words, innovations in the workplace have implications that extend beyond matters of dollars and cents, involving changes in social relations as well as in how consumers purchase goods and services. Innovation fundamentally upsets an existing order and threatens not only the status quo but those who prefer or benefit from the existing arrangement. For example, in *Small Towns and Big Businesses*, sociologist Stephen Halebsky documented how several communities thwarted Walmart's plans to locate stores in their neighborhoods, fearing the big box stores would introduce sprawl, eliminate Main Street businesses, and destroy small town local charm and uniqueness.[17] In this case, the introduction of self-checkout lanes represented a significant change in how supermarkets did business, with various potential economic, social, and political implications for the stakeholders involved. For example, employers might seek to adopt self-checkout lanes in order to curb rising labor costs while cashiers welcome the opportunity to gain new technical skills and spend more time interacting with customers. Alternatively, customers and managers might perceive self-checkout lanes as too costly in time and money, while cashiers oppose them as possible competition for low-wage jobs. Each group ostensibly had its own vested interests—economically, politically, and socially—and therefore might support or resist certain innovations in the workplace. Accordingly, I decided to include each of these groups and their views in my study.

EMPLOYERS

The first group, employers—or more specifically, *managers*—were interviewed to address questions concerning the economic causes and consequences of adopting such technologies, with specific attention to employment, labor costs, and productivity. Why were stores adopting these new, expensive machines in the midst of a major recession when labor was cheap and abundant? Were they being used to cut labor costs or reduce staff? Or was this simply another aspect of the "new economy," as businesses sought to find new ways to incorporate information technology and the Internet? These are just a few of the questions I posed to managers; others concerned staffing, customer responses, and how the store operated in general.

Store managers were interviewed on-site and conversations were recorded when permitted so I could later type up a transcript that I could refer to if I needed to recall specific details. Interviews with store managers were typically arranged meetings following an initial contact and exchange of information and frequently occurred in offices located in the rear or above the main floor. Although I attempted to interview managers separately, on several occasions interviews were held together in a group setting due to the participants' prerogative or work schedule.

This, however, ended up being useful since it allowed me to compare responses among participants; as Erving Goffman pointed out, one-on-one situations can be problematic because people can lie to you, but in multiperson situations there is a limit to the degree one can effectively maintain such deceptions since other people are likely to recall specific details or differences.[18] For example, cashiers or front end managers often remembered specific events or incidents more clearly because they witnessed it firsthand versus learning through word of mouth. Moreover, I could compare what I was being told by managers with information I had gathered from other people and sources of information, a technique of validation referred to as "triangulation." Triangulation describes a way of corroborating or validating findings by comparing information gained through different methods (e.g., interviews, official statistics) or sources of information (e.g., other employees) similar to the way in which navigation uses multiple points of reference to determine a precise location.[19] This means I wasn't simply relying on the claims of a specific person, report, or statistic; instead, I was comparing what I was learning in one context with what I had heard, observed, or read about in another, allowing me to identify inaccuracies as well as patterns of converging evidence.

Store managers also frequently served as a contact point or liaison, introducing me to other managers, employees, or locations and vouching for my credibility, providing entrée to people and places to which I might not have otherwise had access. Gaining access to groups and organizations is a well-documented problem in social research, dating all the way back to the very early studies of tribal societies; Bronisław Malinowski—one of the fathers of modern anthropology—reportedly spent three years trying to get into

Trobriand society in Melanesia, while Franz Boas and E. E. Evans-Pritchard documented similar difficulties accessing the Kwakiutl and Nuer.[20] Since then, human societies have invented formal bureaucracies, organizational charts, and administrative policies that can make it even more cumbersome and difficult for researchers to get access to specific individuals or settings. In this case, I had contacted SuperFood's corporate headquarters as well as its public relations officer early in the beginning steps of my project only to end up languishing for several months while I waited in suspense for a response. In fact, the only response I received was an official email sent several months later—well after I had finished conducting my interviews—thanking me for my interest and politely declining my request. Fortunately for me, decision-making authority in SuperFood wasn't exclusively centralized; while one gatekeeper in the organization had rebuffed my attempts (e.g., corporate headquarters), I could attempt to negotiate entry through another (e.g., individual store managers), once again reflecting the ways in which SuperFood was more of a decentralized series of interconnected fiefdoms than an absolute monarchy.[21]

At the conclusion of interviews with store managers, I typically asked for permission to interview customers and employees at the given location. After all, while the managers could provide me with important details (e.g., company policy regarding the use of self-checkout lanes in individual stores) I was also interested in the opinions and experiences of those working—and shopping—on the front lines of this latest revolution in self-service.

CASHIERS & CHECKERS

The second group of people I interviewed consisted of cashiers, or "checkers," who worked alongside or supervised the self-checkout lanes.[22] I asked them to share their opinion of the new technology as well as how it changed their job, if at all. Employees were occasionally interviewed on the store floor in the course of working, while in others instances I interviewed employees during their break, sitting in a room in the back of the store or on a bench outside, away from the disciplinary gaze of their supervisors and the closed-circuit video cameras that monitor the front end of the store. In some cases, managers referred me to specific employees or made certain employees available, while in other cases, I solicited employees' participation directly and independently. None of these factors appeared to have any demonstrable effect on what they told me—in fact, their responses were fairly uniform—suggesting that their comments were candid rather than scripted or coerced.

However, while I was able to interview managers at length and uninterrupted, my interviews with employees were typically shorter and occasionally fragmented. For example, several of the interviews I held with checkers staffing the self-checkout lanes were punctuated by a series of interruptions as they ran off to help customers or fix machines that unexpectedly "froze." In a couple cases, I even pitched in, helping bag groceries in order to keep the lines moving and the conversation going.

CONSUMERS

The third group, *consumers*, consisted of customers I encountered and interviewed in the stores. I asked customers for their opinions regarding self-checkout lanes, as well as their individual preferences for and experiences with using such technology. Most of the interviews with customers were conducted inside the store; the typical procedure involved approaching a customer, introducing myself, soliciting their participation, and then asking a handful of questions. What did they think of these new self-checkout lanes in the store? Why did they think stores were introducing them? Which form of checkout did they prefer?

In some cases, I followed customers throughout the store, interviewing them as they shopped, but in most cases customers simply answered my questions while we stood in the aisles or waited in line at the checkout. On a few occasions, customers approached me after the interview to give additional comments regarding their shopping experience or to provide additional information. For example, in one case a customer exiting the store expressed her pride at successfully navigating the self-checkout lane on her first try ("*Hey—I did it! First time!*"), while in another instance a customer caught up to me in the parking lot to continue a tirade about self-checkout lanes and technology in general:

> They're taking over everything. Computers. Soon nobody'll have a job and then what? Damn things are a pain in the ass, too. You have to do things just a certain way. It's a pain in the you-know-what. That's why I don't use it. I'd rather somebody have a job. That's what technology does. Wait 'til nobody has a job and then we'll see how smart these things are. I'd rip those things right out. You tell them that. You can tell them I said that.

Overall, however, I found customers to be polite if not inquisitive about who I was and what I was going to do with their information. In fact, I was surprised that so many were willing to stop in the middle of their daily routines to talk with a relative stranger in the aisles. After all, social trust in America was at an all-time low; according to the General Social Survey, in 2014 less than one in three Americans felt that most people could be trusted, down from nearly half in 1984.[23] Why were shoppers willing to take time out of their busy days to speak with a stranger?

Maybe it was because they were simply happy to have someone to listen to them. Perhaps ironically, Americans are more socially isolated today than they were in previous decades; according to the General Social Survey, the average number of people Americans reported they could discuss important matters with dropped from 2.94 in 1985 to 2.08 in 2004, while in 2004 a full quarter of respondents reported having no close confidants, almost a three-fold increase since 1985; when the survey asked respondents how many of the people in the neighborhood were close friends, a third reported "none."[24] Perhaps shoppers were willing to stop and talk simply because I expressed an interest in listening to what they had to say.

THE UNION

Although I was able to interview more than half a dozen employees, I also wanted to interview the union that represented them. After all, the retail industry has a high rate of turnover, with a third of supermarket employees between the ages of sixteen and twenty-four, meaning most employees are only there for a brief period before returning to school or moving on to another job. The union, on the other hand, has a longer-term interest in employment, especially since it is directly related to the union dues that financially support it. Accordingly, I contacted the local UFCW office and arranged an interview with the president representing the workers in each of the stores I visited.

Located roughly two and half miles from the Expressway Plaza, the local UFCW was located in a brick and glass office building in a corporate park adjacent to a SuperFood office as well as several small businesses, medical offices, and local government agencies. Representing 35,000 employees in over forty area businesses, Bill offered me organized labor's perspective as well as a brief a history of recent negotiations and the effect of Walmart's entrance into the retail food market:

> It's not going very well. Steve Burd was the leader of that Safeway and he got the other folks together. And the other companies, they do a mutual aid pact—if one gets struck the others lock everybody out. Their basic approach was they wouldn't bargain. They made proposals that would devastate [the union], underfund health care so that would keep lowering it, hurt the pension plan, hurt everything. Create other tiers where people made less money and all kinds of things and they never changed their proposal during the whole bargain. They said, "Here, this is what we want. If you don't like it, go on strike." And that's what they did. They never bargained. But they couldn't divide us. I mean, you

can't have a better strike than we had. All the people were out. All the stores were closed. You know, they didn't have anybody in 'em. We killed 'em. But we still had a big problem. And the big problem was that they were willing to lose hundreds of millions of dollars and change the industry out there. And they lost. Hundreds and hundreds and hundreds and hundreds of millions of dollars.

In fact, stores lost an estimated $2 billion, suggesting retailers were willing to lose hundreds of millions of dollars in the short term if it meant saving even more in the long term by reducing labor costs. When I asked why stores were adopting such a hard negotiating stance, Bill explained that much of it was being driven by Walmart and the costs of employer-based health care:

Basically, their intention is to operate like Wal-Mart. A lot of this centers around union competition. Walmart's now the biggest grocer in the United States. But companies like [SuperFood] pay, you know, sixteen, seventeen dollars an hour and their health care costs eight hundred bucks a month. And Walmart comes and sits here. They pay seven bucks an hour. [Walmart's] people don't have health care. They lower their prices. You go down the tubes. You can't compete with them. So, this is driven two ways. It's driven because of the Walmart effect and it's driven because of health care costs, which are out of control. We spend fifty percent more than any industrialized country in the world on health care and we have worse outcomes. We're 37th in the world in [health] outcomes overall. For a regular population and health care. So, we pay way more and on average, our infant mortality rates are higher, our longevity is less, and supposedly—I mean, we have wonderful health care in some places that you can go and get all kinds of great service—surgery and all sorts of other care like that—but for the general population, overall, our health care system is failing. Plus, we have fifty million people that don't even have it. But that's getting a little off of the subject [laughs]. But those are the two big drivers in the grocery industry. WalMart and health care.

Accordingly, even though SuperFood and the local UFCW had a good relationship—according to Bill there hadn't been a labor dispute or work stoppage in decades—there was increasing pressure on the chain to reduce labor costs, suggesting that SuperFood might be using self-checkout lanes to cut costs.

Bill was also able to provide me with a copy of the collective bargaining agreement with SuperFood that I later found included important details regarding technology and employment. Specifically, it prohibited technology from eliminating union positions, but not tasks; for example, technology could be introduced to make meat cutting more efficient, but stores could not reduce the number of meat cutters. But as Bill reminded me, those safeguards only lasted as long as the terms of the contract, and with increasing competition from Walmart, future negotiations might not include such concessions.

Instead, he reinforced the importance of customers in determining the whether or not stores used self-checkout to reduce costs by transferring the work onto customers:

> It all depends on what the public does. If the public accepts it, then it will be there. Because that's what the companies want. Less people in the stores. Most of them, not all of them. All grocery companies don't believe in self-checkout. Some believe in it a little bit, some believe in it a little more. But one of those self-checkouts probably takes three jobs or four jobs, ultimately. It depends on the neighborhood, it depends on the demographics, it depends on how comfortable people are with computers. So, it depends on a lot of those things.

If the success of self-checkout lanes depended on customers, it meant that consumers—and not businesses—would determine the future of supermarkets in America, reinforcing my view that it was important for me to get out there in stores and interact with shoppers.

RINGING UP THE TOTAL

Overall, my case study of SuperFood included interviews seventy-seven people including six store managers, seven assistant managers (including customer service, department, and front end managers), six employees, fifty-seven customers, and the president of the local labor union which represented the employees in the stores sampled. While neither a random nor representative sample of the entire retail food industry, the interviews with employees and managers revealed a number of things that I could not have gleaned from official statistics or industry reports.

First, interviews provided information that I simply couldn't get from official reports or statistics. Numbers can be used to provide a sense of magnitude or scale, as well as whether certain things are increasing or decreasing in number, but they don't include a narrative or reason that explains why such trends are occurring. To get those answers, I'd have to go inside stores and talk to the people directly involved.

Second, although I thought I was fairly familiar with supermarkets after several decades of grocery shopping, I came to learn that supermarkets are sort of "social worlds" unto themselves, and that I was in fact more of a tourist or stranger than a true insider. For example, supermarkets have a language for all the things in the store that explain their meaning or purpose. For example, the free standing shelves that form the aisles are called "gondolas," the same name used to describe Venetian row boats that transport tourists; in this case, shoppers are the tourists with the aisles helping to "move" them throughout the store. Every manager I spoke with talked about SKUs, or stock keeping units, bar codes used to track product lines like fingerprints throughout the chain. Stores even used different words to describe shoplifting or theft, referring to it instead as "shrink" or "shrinkage," yet describe the policies and procedures meant to combat them as "loss prevention," not to be confused with "loss leaders" or products sold below their cost price in order to lure customers into the store. Meanwhile, WSSI or "whizzy" allows stores to track sales and forecast supply like magic, while products that fail to sell or are outdated become "dead stock" that are reduced in price, sold to an outlet, or buried back in the warehouse.

Another interesting trend I learned that I wouldn't have otherwise known is that the supermarket industry is still characterized by *internal labor markets*, or hiring from within, providing lower level employees opportunities to move up the corporate ladder. In fact, every single manager I interviewed started out bagging groceries or working a cash register. Karen, for example, started working as a cashier part-time during college; a year later, she was transferred into the pharmacy and when she completed her degree she was offered a position as assistant front end manager, moving up several rungs on the corporate ladder in less than two years. Barry had also started out on the bottom run working as a cashier, thinking "it was just a temporary job when I was in college, friend of a friend, said I needed something for summer," yet in just a decade he had worked his way up to store manager.

In fact, many of the managers I spoke with hadn't planned a career working in retail; instead, they stayed on when they saw there were opportunities to move up in pay and position. When Karen started out, she earned the minimum wage of $6.60 an hour, but after her 90 day probationary period—and with her degree—her pay jumped up to $14 an hour, or "top pay." With declining opportunities in the auto and manufacturing industries, supermarkets—specifically, unionized supermarkets—were still a place where you could earn a middle class salary without a college or postgraduate degree. In fact, SuperFood encouraged employees to attend college, with postings in stores stating that the company would help to pay for some or all of the costs of tuition. Here, I thought to myself, was a vestige of the "old economy," where employers still invested in training workers and offered chances for promotion. I wondered whether self-checkout lanes would eliminate these important bottom rungs on the supermarket career ladder; how would SuperFood find and train the next Barry or Karen?

Lastly, I felt it was important to go into stores and interview shoppers because I was skeptical of some of the claims reported in retail studies. After all, many of the industry reports I read were authored by marketing firms, retail associations, or suppliers of self-checkout lanes, groups that could hardly be considered disinterested researchers. Moreover, while some retail marketing firms were willing to share excerpts of their reports, most packaged and sold them online for thousands of dollars, suggesting they were as much a retail product as anything else.

For example, a 2008 survey by NCR—one of the biggest suppliers of self-checkout lanes—reported that, “86 percent of consumers are more likely to do business with companies that offer self-service,” while a sales brochure from IBM cited a 2007 retail study reporting, “98 percent of respondents have used self-checkout, almost 50 percent have used it more than five times in the previous year, and 72 percent have readily accepted the technology in the marketplace without any negative connotations.”[25] These numbers simply sounded too good to be true, and as we’ll see, they didn’t match up with what I heard and witnessed in stores. Moreover, they contradicted some of the findings I had found in other retail studies. A 2005 study, for example, studying the effect of union density on consumer attitudes toward self-checkout in ten states, reported that more than one in five respondents didn’t like or refused to use self-checkout, with more than a quarter of respondents in California (31 percent), Minnesota (31 percent), Pennsylvania (27 percent), Texas (26 percent), and Illinois (26 percent) reporting they either didn’t like self-checkout or would refuse to use it; ironically, this was the same retail marketing company IBM cited in their sales brochure.[26] As sociologist Robert Park famously told his students at the University of Chicago, if I wanted to know what customers really thought I was going to have to go out there and get my “hands dirty doing real research,” rather than “grubbing around” in the library or browsing on the Internet.[27]

First, however, I had to get to the bottom of the controversy over whether or not self-checkout lanes were in fact eliminating jobs. The answer turned out to be more complicated than I initially expected, involving multiple, interrelated factors, but they began to make more sense when I viewed them through the lens of McDonaldization as well as the “irrational” and unexpected outcomes such rational systems can produce.

NOTES

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10. Ibid.

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12. Based on figures listed on the company website.

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Chapter 4

Why Are There Still So Many Jobs?

In the first two chapters, we examined the ways in which self-service has rapidly expanded into virtually every segment of the U.S. service industry, ranging from hotels and fast-food restaurants to legal services and tax preparation. We also delved into specific historical examples of self-service, examining the work transfer in retail, supermarkets, health care, and fast food. In each case, these industries deliberately adopted self-service in order to reduce costs. In retail, for example, paid salesclerks were replaced by the unpaid "clerkless customer," while in fast-food restaurants customers were put to work adding condiments, making salads, and pouring soft drinks, allowing chains like McDonald's to operate with half the staff of traditional restaurants.

While in some cases this simply involved reorganizing the labor process, today technology appears to be playing an increasingly larger role as innovations in computers, kiosks, and the Internet further facilitate the transfer of work onto consumers, expanding self-service into industries such as legal services (e.g., LegalZoom) and transportation (e.g., Uber) where the ability to transfer work onto customers was previously limited or unavailable. Meanwhile, in industries that already included elements of self-service such as fast food and retail, recent innovations have opened the way for an even greater transfer of work through the use of digital kiosks, scanners, self-checkout lanes, smartphones, and the Internet.

These innovations and others have prompted a revival of the "great automation debate," as views that were previously discredited have gained new respectability, with popular books such as *The Second Machine Age* and *The Rise of The Robots* predicting a jobless future for millions of Americans. The problem, however, is that several generations of scholars have forecasted large-scale technological unemployment only to be rebuffed again and again in the form of sustained job growth. In fact, as I write this, unemployment is below 5 percent, corporate investment in technology is low, and wages are actually rising faster than productivity—hardly the "end of work."[1]

Instead, the recent resurgence of anxieties over automation and computers can be traced back to the 1990s, when economists predicted that technology would reduce the need for low-skilled labor while simultaneously increasing the demand for skilled labor in a process referred to as "skill-biased technological change" (SBTC).[2] Although this helped to explain some of the shifting demands for labor, more recent studies have found that computers have varying effects on skills, replacing some, augmenting others, and in some cases having little to no effect at all. For example, computers are able to perform routine tasks such as filing records and stamping steel sheets, but are less able to displace nonroutine forms of work that are difficult to describe or which do not follow a fixed set of rules that can be programmed, such as teaching a class or designing a building.[3] The SBTC hypothesis also failed to explain growing job polarization in the U.S. economy, as the number of low and high-skilled jobs increased while the number of middle-wage jobs declined, producing what some have described as an "hourglass economy" (see figure 4.1).

In fact, in recent years there hasn't been as much job polarization as there has been an increase in low-skilled, low-wage jobs—precisely the kinds of jobs many predicted self-service technology would eliminate. For example, while the number of ATMs increased by a factor of ten between 1990 and 2010, the number of bank tellers has only continued to steadily rise, while travel websites that allow consumers to compare prices and book airline reservations haven't stemmed the number of travel agents.[4] In fact, a quick glance at the Bureau of Labor Statistics reveals that many of the occupations projected to have the largest growth overall are low-skilled, low-wage jobs

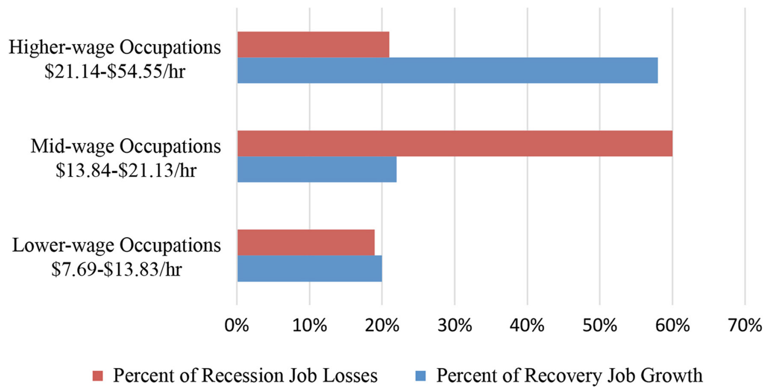

Figure 4.1 Job Losses and Gains During the Recession and Recovery, 2008–2012.

such as those in fast food, retail, and customer service—exactly those industries in which we increasingly encounter self-service (see table 4.1).[5]

If computers are good at displacing low-skilled, routine forms of work, why are there still so many jobs in these industries? Is it simply too soon for us to be assessing job loss? Or is there something else that explains this seeming paradox? In order to examine this question, I return to the supermarket industry and the widespread introduction of self-checkout lanes in the 2000s. First, we will examine employment data and some rather puzzling numbers that in turn prompted me to return to SuperFood in search of an answer.

THE EMPLOYMENT PARADOX

Most, if not all, of the implied savings associated with self-checkout lanes involves reducing labor costs by replacing cashiers with machines and the unpaid work of customers. Described as "a good financial investment," self-checkout lanes are estimated to pay for themselves within one to two years, "generating pure savings after that."[6] In fact, several of the companies that supply self-checkout lanes promote their products in sales brochures and whitepapers that explicitly address reductions in labor costs. For example, one company estimates the four lane configuration staffed by one attendant requires approximately 150 fewer labor hours a week compared to traditional cashier-operated checkout lanes, while another notes that for each item scanned through self-checkout retailers can save the costs that would have been needed to handle those items.[7]

However, while the number of self-checkout lanes has increased dramatically, employment in supermarkets has remained fairly stable. Since the first self-checkout lane was installed in 1990, the number of stores offering self-checkout lanes increased dramatically from 6 percent in 1999 to 95 percent by 2007.[8] Today, more than three quarters of U.S. grocery retailers offer self-checkout, with most stores averaging four self-checkout lanes.[9] Yet, according to the Bureau of Labor Statistics, there are actually *more* cashiers working in supermarkets than there were a decade ago, while employment and labor costs have continued to steadily rise (see table 4.2). To paraphrase Nobel prize-winning economist Robert Solow, the labor-saving effects of self-checkout lanes appear to be everywhere except in the statistics.[10] Even when we control for population growth, the ratio or number of cashiers per capita has remained relatively stable, reflecting what economists would describe as a state of equilibrium, reflecting a balance in the supply and demand of labor; if self-checkout lanes had eliminated jobs, there would have been an observable reduction in demand for labor.

What the numbers don't tell us, however, is *why* self-checkout lanes are not eliminating jobs or reducing labor costs. To answer that, I had get my hands

Table 4.1 Projected Occupational Growth, 2014–2024 (numbers in thousands)

	Employment		*Change, 2014–2024*		
2014 National Employment Matrix Title	*2014*	*2024*	*Number*	*Percent*	*Median Annual Wage, 2016 ($)*
Combined food preparation and serving workers, including fast food	3,159.7	3,503.2	343.5	10.9	19,440
Customer service representatives	2,581.8	2,834.8	252.9	9.8	32,300
Office clerks, general	3,062.5	3,158.2	95.8	3.1	30,580
Receptionists and information clerks	1,028.6	1,126.3	97.8	9.5	27,920
Retail salespersons	4,624.9	4,939.1	314.2	6.8	22,680
Total, all occupations	150,539.9	160,328.8	9,788.9	6.5	37,040

Source: U.S. Census Bureau, "Table 1.4 Occupations with the most job growth, 2014 and projected 2024," Last accessed August 1, 2017, https://www.bls.gov/emp/ep_table_104.htm.

Table 4.2 U.S. Supermarket Employment Data, 2002–2017

Year	*Annual Employment*	*Grocery Store Cashiers*	*Cashiers Per Capita*	*Full Time (%)*	*Part Time (%)*	*Unit Labor Costs*	*Annual Compensation (in millions) ($)*
2002	2,342,900	800,100	0.0081	50	50	92	57,422
2003	2,311,900	824,050	0.0080	51	49	94	58,750
2004	2,301,700	825,150	0.0079	57	43	95	59,720
2005	2,301,200	823,330	0.0078	55	45	95	60,380
2006	2,313,300	816,990	0.0078	53	47	97	62,133
2007	2,338,300	839,810	0.0078	55	45	100	64,713
2008	2,356,400	853,230	0.0077	54	46	106	67,653
2009	2,496,420	839,010	0.0081	56	44	107	67,640
2010	2,475,670	838,260	0.0080	63	37	106	67,784
2011	2,472,870	834,870	0.0079	61	39	106	68,220
2012	2,497,670	831,770	0.0080	55	45	108	69,970
2013	2,547,840	830,750	0.0081	52	48	108	70,958
2014	2,612,700	835,020	0.0082	55	45	110	73,878
2015	2,523,000	856,850	0.0079	52	48	113	77,644
2016	2,692,460	867,920	0.0083	55	45	112	78,789
2017	3,564,920	916,540	0.0109	50	50	114	81,285

Note: Includes only supermarkets and other grocery (except convenience) stores. Unit labor costs are indexed to 1997 (i.e., 1997 = 100).

Sources: Current Population Survey, March Supplement; National Industry-Specific Occupational Employment and Wage Estimates, NAICS 445111—Supermarkets and other grocery stores.

dirty doing "real research," going into actual stores and interacting with those directly involved. Moreover, I had to step back from the economic literature I described above because it failed to explain what I was seeing; in fact, I was seeing the *exact opposite* of what it predicted. I decided to do a little mental inventory to see if I could reconcile the numbers with what I learned in the course of my research on the retail food industry.

Chains like SuperFood were under increasing pressure to reduce labor costs, beset by low-wage nonunion competitors like Target and Walmart and rising health care costs. One way they could have reduced costs is by replacing experienced full-time staff with part-time workers who would receive lower wages and little or no benefits. But the ratio of full to part-time cashiers had remained relatively stable over the past decade, both at the national level as well as in the stores I sampled, suggesting stores had not adopted this strategy. Perhaps, then, stores had made a rational, calculated decision to risk expensive short-term investments in technology such as self-checkout lanes, thinking that over time it would reduce costs. This made sense except that it didn't reflect what I was seeing in the numbers. Moreover, those investments should have produced measurable results by now, but costs were only continuing to go up instead of down.

As I was trying to rationally think my way through this puzzle, estimating how stores might reduce costs by replacing workers with machines, it occurred to me that was I was thinking about was in fact the process of McDonaldization and its dimensions of calculability, efficiency, and the substitution of people with technology. Moreover, I was observing precisely the kinds of "irrational" outcomes that Ritzer noted such rationalized systems could produce, as labor costs in supermarkets only continued to rise despite industry-wide adoption of a labor-saving device. Through the lens of this theoretical perspective, what had previously seemed puzzling now began to make sense.

In the remainder of the chapter, I describe the ways in which attempts to further increase the rationalization of supermarkets through the use of self-checkout lanes is offset by "irrational" outcomes that increase costs and reduce profitability, including excessive turnover, theft, the reduction of customer service, maintenance, and bureaucratic labor contracts. Below, I address each of these factors, highlighting how such attempts to further rationalize supermarkets through the use of self-checkout lanes are thwarted by irrationalities that limit their usefulness.

NOW HIRING: TURNOVER AND LABOR SHORTAGES

While industry reports and newspaper articles led me to think stores were looking to cut costs, managers told me stores were actually looking to add rather than subtract labor. First, as managers explained, supermarkets generally have among the highest rates of turnover, averaging 5 percent per month, meaning that stores like SuperFood lose, on average, 60 percent of their workforce in a given year. And while these may be low-wage workers—in 2016, the average cashier earned $10.43 an hour or an annual income of $20,180—it costs stores money to recruit and train replacements; according to the Center for American Progress, the cost of replacing an employee earning less than $30,000 per year is approximately 16 percent of that person's annual wage.[11] This means stores like SuperFood have to spend $3,400 each time a cashier quits, and with cashiers representing roughly a third of all supermarket employees, the cost of turnover adds up fast. In fact, turnover is so costly that even Walmart raised wages, increasing their lowest pay in 2015 to at least $9 an hour.[12]

Moreover, chains like SuperFood also faced competition in the low-wage labor market from other employers that could offer higher wages or attractive perks such as free food:

Peter (store manager): It's easy to hire somebody. It's just retention. And a lot of that is the starting wage. Our union contract is basically six-sixty [$6.60] an hour. So, it's tough to get somebody on board for six-sixty an hour when they can go to Burger King, McDonalds, and make nine, ten dollars an hour. And get a free meal out of it.[13]

Barry (store manager): The incentive to stay is not quite as strong as it used to be. The incentive to stay back then was the salary and benefits—which they still have—but today, when they need six years to get benefits, at $6.60 an hour, I'm hiring kids. We used to track turnover numbers pretty closely but not anymore. I'd see fifty percent of people with less than five years' experience going. So, it's a constant hiring process. Constantly pulling applications out of our job enrollment system, interviewing, hiring.

Rachel (front end manager): Actually, I'm getting ready to send in a proposal to have the wage increased here since the union wage starts out at $6.60 an hour and it's difficult with the mall. We've lost a lot of people—high school kids—to the mall. I think I started out making more money than what we're hiring at. And that was fifteen years ago! [laughs]

As Rachel pointed out, pay increases hadn't kept pace with increases in the cost of living, meaning that for long-term employees such as herself wages actually grew very little, if it all. When Rachel began working for SuperFood fifteen earlier, the federal minimum wage was $4.25; although it had since increased to $6.60, when adjusted for inflation, it was more or less the same in terms of buying power.[14] Therefore, even though starting wages had nominally increased since she began working for SuperFood, the actual purchasing value of the wages had largely stagnated.[15]

Demographics played a role as well. In their never-ending quest to cut costs, retailers began to adopt part-time work practices in the 1920s and 1930s—nearly half a century before the practice became a regular staple of the U.S. economy—while two decades later they began replacing male cashiers with female ones to further reduce costs.[16] Today, stores have gone even one step further by relying on teenagers instead of adults. According to the Bureau of Labor Statistics, roughly one-third of grocery store employees are between the ages of sixteen and twenty-four, while approximately 90 percent of cashiers are between the ages of sixteen and nineteen.[17] As a result, managers frequently found themselves having to juggle store scheduling with younger employees' academic and extracurricular activities:

Rick (store manager): Around here you get a lot of young kids. They want football games off, they want dances off, they want track and field off. So, we try to work with them as much as we can. [We] always tell them their school's first.

All of this was compounded by concessions the union had made in the previous round of contract negotiations, in which existing health care coverage had been kept in place at the price of requiring new employees to be employed for an extended period of eighteen months before becoming eligible for coverage. Two-tiered wage structures such as this have become increasingly common because such systems allow employers to shed labor costs while protecting current employees' wages and benefits. The cost of these systems is essentially passed on to future workers who receive lower wages and fewer benefits. Moreover, since the labor contract guaranteed hours for full-time staff, new employees had to rely on whatever hours were left over:

Lisa (assistant manager): You have these people [that have] been here fifteen, sixteen, seventeen years—you just can't reduce their hours. They are guaranteed eight hours, five days a week. Until the old timers retire, the younger people don't stand a chance. They get the hours that's left. So, they have to then take the hours that's left and try to spread them out with the part-timers. And they're trying to make sure everyone gets some hours, so they don't have much left.

Offering low pay, few hours, and little prospect of health care coverage, I began to understand why stores like SuperFood were having such difficulty hiring:

Lisa: The new people—they're in and they're out. Because when they're comin' in, they're not makin' any money. $6.60, that's not any money. Compared, you know, to another job. You know, SuperFood starts them out at $6.60. You have other jobs that start them out at way more than that. So, they're here and they're just passin' through. But do you think these children really care, do you think these people really care? I'm only makin' $6.60. You think they really care? I wouldn't. Most women are single parents. Do they have a significant other or husband who is gonna' fill in that gap? Now most people—if you have a husband or something—it's no problem. But if it's just you and you have two or three children, do you really think you're gonna stick it out that long? I don't think so. I wouldn't. Especially if they have children at home that need health care. And then, when they *do* get their insurance, and if they select the family plan, if you're only making $6.60 or seven or eight dollars, how can you afford all that insurance?

Accordingly, stores were in a near-constant state of hiring, struggling to fill a variety of positions that went unfilled for weeks, sometimes even months:

Rick: It's tough. We just had a job fair yesterday. My customer service manager arranged [it] and she hired like fifteen people. [Self-scan] hasn't eliminated anything. I mean, I can't speak for other stores if they try to save that way. But I certainly don't. I can't afford to 'cause I need all the people I can get. I would literally hire twenty cashiers tomorrow if I could.

I listened politely to what Rick and others managers said, but what they were telling me seemed a bit hard to believe. How could supermarkets be struggling to find workers in the midst of the largest economic downturn since the Great Depression? Every night, the television news reported the increasingly desperate state of Americans who had been laid off, lost their homes to foreclosure, or were unable to find work; why weren't they beating down the doors at SuperFood asking for a job?

Perhaps it was because supermarkets like SuperFood had become *too* McDonaldized. In their never-ending quest to further cut costs and increase efficiency, supermarkets had rationalized the employment structure to the point where it had become irrational and unattractive to prospective workers, offering unpredictable fragments of work, little prospect of health care coverage, and the lowest wages allowed by law. And while replacing full-time adult workers with part-time teenagers may have lowered labor costs, it also resulted in irrational outcomes in the form of chaotic scheduling and costly turnover. If anything, self-checkout lanes appear to be a symptom rather than a cause of problems in the low-wage labor market.

In fact, this is precisely what some retail analysts have claimed. Rather than pushing cashiers out of the way, suppliers of self-checkout lanes argue that self-checkouts are being driven, at least in part, by labor shortages—exactly the same claims retailers used to justify the use of self-service nearly a century earlier. According to Greg Buzek, president of retail consulting firm

IHL, self-checkouts are unfairly criticized for performing jobs that otherwise go unfilled:

> Self-checkout has typically gotten a bad rap. People have looked at it and said, "Oh they're just trying to cut jobs with self-checkout." Actually, it's quite the opposite and evidence of that is when is the last time you went into a supermarket and saw all 16 lanes setup and ready to take customers? They're simply aren't enough people to take those jobs.[18]

Not enough people to take those jobs? At the time I was conducting this study, the unemployment rate was 8 percent and rising, with the unemployment rate for teenagers just under 20 percent—plenty of people needing work. It wasn't that there weren't enough people to take these jobs; it was that the jobs were so irrational in terms of pay, hours, and benefits that it made better sense for people to find work elsewhere or collect unemployment benefits.

WALKING OFF WITH THE STORE: SHRINK, THEFT, AND WALKOFFS

Another irrational aspect of self-checkout lanes is theft, or what retailers refer to as "shrink." Industry experts frequently note that one of the largest sources of theft in retail is from employees who either steal from the store or provide "sweetheart" deals to customers:

> One major source of employee-caused shrink is "sweethearting," a catchall term that describes methods cashiers might use to charge shoppers (often friends or family members) less than the actual cost of their items. . . . Examples of sweethearting include cashiers bagging up items without ringing them up, using overrides and voids to remove charges from the total sale, entering a stock keeping unit (SKU) number for a lower-priced item but placing a higher priced item in the bag, and ignoring items in the bottom of the basket. . . . Therefore, removing the cashier from the checkout equation and implementing self checkout lanes has considerable potential to reduce shrink.[19]

Yet, instead of reducing theft and increasing efficiency, self-checkout appears to *increase* opportunities for theft. Similar to what researchers have found with computers and automation, self-checkout lanes are good at displacing certain skills but not others. Therefore, even if self-checkouts eliminate the need for certain types of labor (e.g., scanning items), they still require other forms (e.g., monitoring) to ensure that they are not manipulated or abused by customers:

Carl (store manager): You could have a customer put five pounds of shrimp on there and weight it as bananas. You know, all you gotta' do is key in the code for bananas and it's gonna' be seventy-nine cents a pound opposed to ten ninety-nine a pound. And that's why you want to keep one person operating four machines to sort of deter that sort of thing from happening. You'll have people that'll just move things around the machine itself. Won't even scan it. There's a lot of ways of beating the system. There's a lot of holes. For instance, if you take a salad bar and you have salad—what's salad, $3.99 a pound? [It's] about $3.99 a pound, and it has to be weighed, and then you take the hot foods bar over there where it's $5.99 a pound, well what a lot of people will do is take a hot foods product and put it on and weigh as a salad bar. So, they're saving a couple bucks a pound. And there's no way of identifying or catching them unless someone's standing there watching it.
Barry: Same as anything, it's as honest as the people dealing with it. You see people trying to get you. But you also see people trying to switch meat labels, change packaging throughout the store, so it's nothing new. Theft in this industry is ridiculously high. It's a challenge. That's why we try to keep it manned a hundred percent of the time. They'll see it's being watched and they'll get fidgety and back off, do the right thing usually. But there's always the few dishonest ones. . . . It's a lot of the honor system going through there.

In place of the "honor system," self-checkout suppliers such as IBM stress that businesses using their product follow "best practices" to prevent theft and loss. These best practices, as described by IBM, include staffing self-checkout lanes as well as the use of close-circuit television monitoring, each of which requires the use of additional labor rather than less.[20]

Another example of theft involves "walkoffs," or shoppers who scan and bag their groceries but then leave without paying. Walkoffs include not only shoppers who willfully misuse self-checkouts, but also customers who absentmindedly forget to scan items placed beneath the shopping cart, inadvertently departing the store with unpaid goods:

Peter: You have what we call "walkoffs." Where if that one person is not on top of it a hundred percent of the time, somebody can easily just walk off without paying it. And that's where you end up with shrink and you lose your sales, you lose your dollars.
Barry: They'll ring everything up, run it through the machine, bag it up and walk out. That's why one of the functions of the pay station cashier is to monitor the self-checkouts. . . . But we have walkoffs. Some of them are walkoffs 'cause they get frustrated by the technology and they just walk out and leave the food behind. And some of them are just dishonest.
Carl: You get a lot of "walkoffs," people that will walk off. You're busy or someone's tied up with something else—they'll finish the transaction, be bagged up,

throw everything in the cart and walk out, and then the bell will ding a couple of seconds later that the transaction hasn't been finished. In the meantime, they're out the door.

How much theft *is* there in the self-checkout lane? While managers declined to provide specific numbers, retail analysts report that retailers lost an estimated $50 billion in 2016 and suggest that theft is up to five times higher in self-checkout lanes compared to traditional cashier-operated lanes.[21] Similarly, in a recent survey of over two thousand shoppers, one in five admitted to stealing from self-checkouts with a majority reporting that they did so regularly, while another study estimates up to a third of customers steal when using self-checkout lanes in stores.[22]

Indeed, a cursory search on the Internet reveals countless cases of shoplifting using self-checkout. One of the more spectacular cases involves a customer who reportedly stole more $10,000 worth of merchandise over a period of several months using the self-checkout lanes.[23] Other noteworthy examples include a customer who attempted to purchase 42 inch television after switching the original price tag of $984 with one for only $4.88, and a shopper who bagged more than $300 worth of stolen merchandise through the self-checkout lane.[24]

Critics argue that self-checkout is turning us into a nation of shoplifters. According to the authors of a 2015 University of Leicester study on retail theft, "retailers could find themselves accused of making theft so easy that some customers who would normally—and happily—pay are tempted to commit crime, especially when they feel 'justified' in doing it."[25] By telling themselves the store is overpriced or blaming the technology for scanning problems, the authors note, shoppers may neutralize feelings of guilt, rationalizing theft as an appropriate or logical behavior.[26]

Sociologically speaking, there are roughly five types of swipers, or "seeming well-intentioned patrons engaging in routine shoplifting."[27] The "accidental" swiper engages in unintended theft and may not even be aware that they did not pay for an item, whereas the "switcher" cheats the machine by switching price labels with a cheaper item or entering an incorrect number of items, framing their behavior as "cheating" rather than stealing because they are still paying something for the item. "Compensators" are ideologically motivated, viewing self-checkout as contributing to unemployment or poor service and interpreting their actions as just, while "frustrated" swipers are motivated by difficulties using self-checkout or the machine itself; according to research, the most frequently cited annoying self-checkout issue is the "unexpected item in the bagging area."[28]

Some stores have responded to this increase in theft with what can be described as "aggressive hospitality," placing staff at the end of the checkout lane and encouraging employees to be "super-nice" to make sure shoppers are not being "super-naughty."[29] Walmart, for example, has introduced surveillance with a smile by reviving the use of store greeters and expanding their presence to the self-checkout area to improve customer service and deter theft.[30]

Each of these forms of social control reflect a larger, historical shift in discipline, as societies have found more effective means of control through the use of monitoring and self-discipline, resulting in what French sociologist Michel Foucault referred to as the "carceral archipelago," describing the spread of island-like prisons throughout society, and in this case, the self-checkout lane.[31]

In this regard, self-checkouts not only rely on the unpaid labor of consumers but also the self-discipline of consumers, using surveillance to remind consumers that they are being watched, and in the process, turning the checkout lane into a temporary sort of prison. However, if the end result—displacing social control onto consumers—is rational from a cost-benefit analysis point of view, it is "irrational" in dehumanizing customers, manipulating their feelings of shame and guilt and treating them as would-be thieves.

Here, we see that further attempts at rationalization—substituting cashiers with machines in order to reduce theft—can result in irrational outcomes that are not only costly for stores but which risk turning cashiers into prison guards and customers into petty thieves. Moreover, instead of replacing cashiers, self-checkout lanes require constant monitoring and supervision in order to deter theft, transforming the casual checkout line into a carceral archipelago of social control and surveillance.[32] Yet, if theft is one reason why self-checkouts have not eliminated jobs in supermarkets, another is because of the cold and alienating feelings such rationalized systems tend to produce.

THE PERSONAL TOUCH: CUSTOMER SERVICE AND SATISFACTION

Another major reason stores limit their use of self-checkout is precisely because such forms of rationalization tend to result in feelings of disenchantment and dehumanization, transforming customers into unpaid workers and treating them as would-be thieves. For example, when former Home Depot CEO Robert Nardelli increased the process of cost-cutting at the chain by replacing staff with self-checkout lanes and installing cameras to deter theft, the move backfired as frustrated customers fled to archrival Lowe's.[33] Accordingly, retailers hesitate to replace staff with machines because they worry that further automation will drive away customers.

Instead of replacing cashiers, managers explained that SuperFood closely monitored the percentage of sales going through the self-checkout lanes in each store in order to maintain a certain degree of personal service and face-to-face interaction:

Rick: A red flag will go up if you have too much of a percent using self-checkout in your store. And if it gets above thirty, it's a red flag and they [will] say, "That's too much, you don't have enough cashiers open along with self-checkout."
Carl: They don't want any more than seventeen percent of your business really going through the self-scans. I mean, that tells you there they still want customers taken care of, they still want the staffers to be able to, you know, have personal communication.

Facing razor-thin profit margins of less than one percent and increasing competition from low-cost retailers like Target and Walmart, SuperFood hesitated replacing cashiers because of the potentially destructive effect it could have on customer loyalty:

Barry (store manager): People used to be fairly loyal to their grocery store. Nowadays, you might have two or three favorite grocery stores because you're cherry picking the ads, whichever you want to do. But I've found here—every store I've been in—you have a very loyal, committed base. And if you have a veteran staff, they know those people and they care about them. That's where some of the motivation is [to shop at this store].
Robert (assistant manager): They get to know that customer, that cashier. A self-checkout's not gonna' recognize [the customer]. It doesn't have that personal touch. And I think that's what made SuperFood successful.
Sam (store manager): I think if any company—whether it's SuperFood or any of our competitors—took the approach of eliminating cashiers, we'd be in trouble. It only takes one, maybe two, bad experiences for that customer to be turned off to that store. We'd be shooting ourselves in the foot if we don't offer more cashiers than self-checkouts to give them a choice.

In other words, SuperFood actively limited the degree of rationalization in their stores precisely because it feared producing irrational outcomes in the form of alienated and disenchanted customers. Replacing a cashier with a machine may be cost-efficient, but it is also impersonal, and in a crowded market, the "personal touch" is what sets companies like SuperFood apart from other competitors.

In many respects, supermarkets are nearly identical, both in terms of layout and the number and type of the products they sell; what sets one company apart from another is the quality of service provided. This is why chains such as Heinens and Publix resisted adopting self-checkout or implemented other programs such as carrying customers' groceries to their cars for free. When asked why none of their twenty-three stores included self-checkout, Heinen's CEO Jeff Heinen replied, "We're all about service, and self-service checkouts don't align very closely to that," mirroring a similar statement by a Publix representative that described self-checkout as "countercultural" to a corporate culture that emphasizes customer service.[34]

In fact, several chains are bagging self-checkout precisely because of concerns over customer service. Albertsons recently announced it was phasing out self-checkout, following similar decisions by regional chains such as Big Y Foods and Jewel-Osco.[35] Other retailers such as CVS and Costco have also pulled the plug on self-checkout after citing concerns over customer service.[36] Even Walmart decided to curb their use and add more staffing as part of a "checkout promise" after customers complained about long lines and empty shelves.[37]

In a tight, competitive market, with tiny razor-thin profit margins, chains such as SuperFood must be customer-oriented not because they *want to* but because they *have to* in order to stay in business. As one manager explained to me, there isn't an untapped market; the only truly "new" customers are those who choose to shop elsewhere, meaning that individual chains are in constant competition to attract and retain the same customers. Therefore, even if self-checkout lanes could be used to further rationalize labor costs in supermarkets, they risk alienating the very customers upon which such "cathedrals of consumption" ultimately depend.

Then again, if retail giants like Walmart are able to crowd out the competition, they could push through changes in retail despite their unpopularity with customers. Today, Walmart controls roughly 15 percent of the retail food industry, followed by Kroger (7 percent) and Albertson's (4.5 percent), suggesting that the retail food industry is still crowded with competitors.[38] But those are just numbers; on the ground, in actual cities and neighborhoods, sometimes one or two supermarket chains enjoy an effective monopoly. In 2010, the United States Department of Agriculture (USDA) reported that nearly a quarter of Americans live in a "food desert," meaning that they live more than 1 mile from a supermarket in suburban or urban areas, and more than 10 miles from a supermarket in rural areas.[39] In other words, a significant number of Americans have relatively few options when it comes to choosing where to purchase their food, suggesting that while affluent consumers in densely retailed suburbs and cities may be able to resist changes by shopping elsewhere, poorer and rural consumers may be less able to do so because they have access to fewer stores. Accordingly, chains like Walmart may be able to force through these kinds of changes despite customers' preferences precisely because they are the only available option for some Americans. Therefore, it might be better to view this as a period of debate and experimentation, as retailers test whether self-checkout lanes will be accepted by customers and offer a worthwhile return on investment, two questions that as of yet remain unanswered.

DEALING WITH JAMS: TROUBLESHOOTING AND MAINTENANCE

Yet, even if the shopping public were to embrace this new technology, there is also the very real question as to whether self-checkout lanes can hold up any better than their predecessors did nearly a century ago. Indeed, another reason self-checkout lanes have not eliminated jobs is because they are unable to operate efficiently independent of human staff, a problem that appears to have plagued efforts to automate supermarkets from the very beginning. Following his initial success in pioneering the first self-service grocery store, Clarence Saunders attempted to further reduce costs in 1937 by replacing cashiers in one of his stores with an automated checkout system named Keedoozle ("key-does-it-all"). The complexity of the machinery was difficult for customers to operate and mechanical breakdowns, product breakage, and soaring labor costs for electricians led to the store's closure after just one year.[40]

Today, technical problems and customer difficulty in operating the technology remain key problems in efforts to automate the checkout lane. In fact, technical problems were so common that SuperFood had to expand a maintenance service contract to provide continuous service:

Author: Have there been any problems with using the self-checkouts?
Rick: Maintenance. We have a company that gives us maintenance, basically twenty-four hours, twenty-four seven. When they first came out, obviously with the new technology, there were problems. Since I've been in this store? Maybe one time where one went down for a weekend and it was a problem getting a part, but otherwise just the technology and learning them would be the biggest challenge. But when they first got here, there were a few [problems] and that was, partly I would say, their fault and ours because the twenty-four seven window wasn't there. But with the new twenty-four seven service, it's been much smoother. It's an outside maintenance company that takes care of them.
Rachel: Self-scan has a lot of maintenance. We probably have one self-scan down a day. There's a lot of maintenance on it. There's a great contact with [a maintenance service company]. And they're available to us twenty-four seven. And then we also have to wait on the parts. And then the parts come and then they come in and . . . we can't find the parts! Sometimes it can be a hassle.

Here, then we can see the "irrational" effects of attempting to rationalize labor costs through the use of self-checkout. While it may eliminate a low-skilled, minimum wage worker, it relies on skilled labor that must be available night and day in order to keep the machine functioning, much like Saunders's Keedoozle. Moreover, as managers explained, self-checkouts are susceptible to a variety of problems requiring human intervention. Paper for printed receipts has to be replenished, items that fail to scan have to be manually entered, unwanted purchases need to be voided, and items need to be bagged to prevent the belt from stopping—any of which can bring the transaction to a complete stop.

And problems do in fact arise. For example, a retail study found that customers using self-checkout lanes required assistance one out of every three times.[41] However, anecdotal evidence suggests rates may be even higher. At Century Village, I met Sarah, who worked part-time at the store both as a cashier and assisting customers as a customer service clerk. On that particular day, she was assigned to the self-checkout lanes to help assist customers and troubleshoot problems. During the time I spent following Sarah, she had to assist nearly every single customer who went through the self-checkout; one particular customer required assistance on three separate occasions. "There still has to be someone with a brain," she explained as she bagged up customers' groceries, "The end here gets full so someone has to empty it." Sarah estimated that she needed to help 90 percent of the customers using self-checkouts.

At Travelers' Gate, I met Henry, who also helps customers in the self-checkout lanes. Unlike Sarah, who frequently laughed as she moved from machine to machine helping customers, Henry was so busy helping customers in the self-checkout lanes that we never managed to complete our initial interview. Like Charlie Chaplin trying to keep up with the assembly line in *Modern Times*, Henry struggled to keep up with the pace of customers requiring assistance, frantically moving from machine to machine in what seemed like a never-ending race. I later spoke with one of his co-workers, Ismail, during a break, as we sat on the bench at the end of the checkout lanes. I described what I had seen with Henry and asked him if it was uncommon or unusual based on his own experience. He replied that it was not unusual at all. "[I have to help] almost every person," Ismail told me, "About eight times out of ten."

Admittedly, these examples are anecdotal and may not be representative of the experiences of cashiers throughout the industry. Yet, they reveal the simple fact that self-checkout lanes are hardly autonomous and require some degree of human involvement. While humans tend to be the source of inefficiency and unpredictability in rationalized systems, efforts to automate certain tasks have resulted in disasters, demonstrating how rationalized systems can result in irrational outcomes. For example, the trillion dollar "flash crash" in 2010 was caused by computerized high frequency trading, while in

2009 computer errors contributed to the crash of Air France Flight 447.[42] By increasing the complexity of systems, computers may actually increase the risk of accidents and create new problems that can only be averted by human intervention, a phenomenon referred to as "normal accident theory."[43]

For supermarkets, this means unmonitored self-checkout lanes can "freeze up" or become vulnerable to theft, minor outcomes that with time and scale can cumulatively spell disaster for stores. Therefore, even if self-checkout lanes can automate some of the tasks done by workers, it may still be a good idea to have staff on hand if only to avoid a "meltdown" in the checkout lane when unexpected problems arise.

THE FINE PRINT: UNIONS AND COLLECTIVE BARGAINING AGREEMENTS

Ironically, Weberian bureaucracy is one of the key reasons why stores like SuperFood are unable to replace workers with machines. Explicit language in collective bargaining agreements allows stores to use technology to eliminate *jobs*, but not employees:

> In the event that the Employer contemplates the introduction of major technological changes affecting . . . work within the Grocery Department, advance notice of such changes will be given to the Union. If requested to do so, the Employer will meet with the Union to discuss the implementation of such changes before putting such changes into effect. . . . Should the Employer intend to substitute electronic checkout systems for existing equipment in any store, the Employer agrees to notify the Union in advance and to provide the Union a list of all employees regularly assigned to the store on the effective date of the utilization of said systems. Said employees shall not be removed from the Employer's payroll as a result of the installation of such a system. Employees may continue to be transferred, assigned to other work, or laid off in accordance with the seniority provisions of this Agreement provided the layoff is for reasons other than the installation of such a system.[44]

Trapped in an iron cage of bureaucracy, SuperFood and other supermarkets are bound by labor contracts that stipulate in precise terms hiring and employment conditions. Moreover, challenges to organized labor risk producing irrational outcomes such as boycotts and strikes that threaten profits. The 2003 UFCW strike in California, for example, cost the supermarket industry \$2 billion, while a 2014 International Longshore and Warehouse Union (ILWU) work slowdown over concerns regarding automation cost retailers an estimated \$2 billion per day.[45]

Yet, perhaps the biggest threat to jobs is not automation but nonunion competitors such as Harris Teeter, Wegman's, and Walmart that have used their lower operating costs to drive down prices and increase their market share of the retail food industry:

Jack: We got more to worry about the competition than we have to worry about self-checkouts. We got a Harris Teeter, we got Walmart, we got Wegman's. That's what we better worry about. Putting a few self-checkouts next door—I don't know if that's going to eliminate too many jobs, but competition will eliminate jobs faster than anything 'cause they'll take our business.[46]

And they are. Harris Teeter opened their first store in SuperFood's backyard in 2006 and quickly added a second in 2008, while Wegman's rapidly expanded from a single location in 2005 to six in 2013. Meanwhile, Walmart opened their first store in the area in 2007—less than two miles from SuperFood's headquarters—and has since added another two locations. SuperFood still controls a third of the area's supermarket sales, but Walmart has already climbed to third with Harris Teeter and Wegman's right behind them in the top ten.

Union membership has been traditionally strong in grocery stores—nearly double the U.S. average—but it has been declining in recent years due to increased nonunion competition.[47] This further rationalization through the use of nonunion labor has in turn resulted in "irrational" outcomes in the form of declining wages that in turn cost American taxpayers. For example, a 2014 study of the retail food industry in California found that a nonunionized, low-price, low-cost business model had caused a widespread decline in employee wages such that 36 percent of California's retail workers received public assistance, costing California taxpayers $662 million annually.[48] In fact, Walmart, a company with annual profits averaging over $15 billion over the past five years, costs American taxpayers an estimated $6.2 billion per year in the form of public assistance programs such as food stamps and Medicaid provided to its employees.[49] How irrational is that?

However, if declining unionization rates and the "Walmart effect" are driving employment trends in the retail industry, the effect of self-checkout lanes and similar self-service technologies may ultimately depend upon consumers:

Bill (local UFCW president): I mean, look at technology in airlines. I would never go to one of those [self-service kiosks], until about a year or two ago. I'd wait in line. And the lines get longer, and longer, and longer, and longer to talk to a person and have them do it. So, I finally got up to one of them and said, "Man, you wait in line this long?" They said, "Go to a machine." And I said, "Man, I'm a union guy.

I won't use the machines. I want you guys to have jobs." He said, "It's over. We're done. So, you waiting in line is not gonna' help us anymore because the industry is going to basically all machines." Which they have. He said, "Don't worry about it. We're finished."
Author: Because the public bought it?
Bill: Because the public's bought into it. Exactly.

SUMMARY

As I explained in this chapter, there is no demonstrable, empirical evidence that indicates self-checkout is eliminating jobs; instead, the number of cashiers and labor costs have only continued to rise. One possible explanation presented here is that the "irrationality of rationality" undermines their usefulness, reducing the efficiency and predictability of sales transactions and alienating customers who find their use dehumanizing or disenchanting. For example, self-checkout lanes appear to have increased rather than reduced opportunities for theft and depend upon staff to successfully operate. Moreover, the skills they displace (e.g., routine, unskilled) are cheaper than the ones they require (e.g., technical, skilled), suggesting that further computerization may actually increase rather than decrease labor costs in an industry that already struggles to attract and retain unskilled low-wage workers.

Yet, it is difficult to gauge the effect of self-checkout lanes precisely because of the irrationalities that cause employers to limit their use. Employers' cautious use of self-checkout lanes, as well as their continued desire to provide human-operated cashiers, significantly limits any potential savings in labor costs. Until stores are willing to experiment with an entirely automated checkout system—what self-service pioneer Clarence Saunders described as the "robot grocery store"—self-checkout lanes may remain little more than a novelty.

However, although self-checkout lanes appear not to have resulted in significant job loss, this does not rule out latent or long-term effects. Self-checkout lanes may in fact have a significantly adverse effect on jobs. For example, the considerable turnover endemic to the industry could mean that the economic effect of self-checkouts is more gradual rather than immediate, as wages are gradually reduced and fewer full-time workers are hired. Comparable to what economists have suggested regarding the effect of computers on productivity, the effect of self-checkouts may prove to be somewhat delayed or gradual rather than punctuated and immediate.[50]

Customers' willingness to adopt new ways of conducting business transactions limits companies' ability to fully automate, or in this case, transfer some of the required work onto consumers. In the absence of a monopoly, American consumers have a choice of where to shop for groceries, and with more than 200 chains and 38,000 stores there's a lot of choices. Therefore, while six airlines may be able to impose self-service industry wide, in more competitive industries businesses will have to carefully gauge what customers are willing to do.

The fact that self-checkout lanes have not yet eliminated a significant number of jobs in the supermarket industry also underscores an important point in the current debate over automation and employment: just because employers can automate certain aspects of work, it does not necessarily follow that they will. In fact, self-checkout could be checking out; according to a recent study by the Food Marketing Institute, usage of self-checkout declined from 22 percent in 2007 to 16 percent in 2010, while five retailers have removed them altogether from more than 1,500 stores.[51] Or to paraphrase Marx, self-checkout lanes may have sown the seeds of their own destruction.

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Chapter 5

Shopping with the Lonely Crowd

The question of how self-checkout lanes may affect customers and contemporary shopping reflects a deeper historical tension within the social sciences regarding the role of the consumer and consumption in general. Rather than getting into the minutiae of what is truly a long and vast literature on consumption stretching across numerous academic disciplines, I think it may be helpful to offer a brief outline of what might be described as two competing or conflicting views of the consumer.[1] Although these two conceptions may be somewhat exaggerated or overgeneralized, I think they provide useful heuristics or "ideal types" for understanding the different ways in which consumers have been characterized in the literature as well as the limitations or weaknesses associated with such characterizations.

The first perspective largely treats the consumer as an *object* by focusing on the ways in which consumers are subjected to and influenced by the forces of advertising and marketing through branding, commercials, media, product placement, subliminal messages, and various other forms and strategies; examples include bestsellers such as Vance Packard's classic *The Hidden Persuaders*, as well as Martin Lindstrom's *Buyology*, and Paco Underhill's *Why We Buy*.[2] This genre is highly compelling to both academics and the public, likely in part, because it explores the psychological manipulation of human behavior and the unconscious mind. For example, Underhill notes that as many as 60 to 70 percent of supermarket purchases are unplanned and describes how subtle variations in aisle space, product displays, and the packaging and placement of merchandise in stores can significantly affect sales, while Lindstrom documents how a multimillion dollar neuromarketing study successfully predicted which of three television programs would attract the most viewers.[3] Other popular bestselling books about the unconscious mind include Malcolm Gladwell's *Blink* and Daniel Kahneman's *Thinking Fast* *and Slow,* both of which describe numerous studies documenting the cognitive biases and processes that unconsciously influence our behavior.[4] However, while these offer important insights toward understanding consumer and human behavior more generally, their overuse or overgeneralization risks reducing people to “dupes” that can be easily tricked or manipulated.[5] This view is further reinforced by numerous works that focus on consumers through analyses of “mass advertising,” “mass culture,” “mass images,” “mass marketing,” and “mass media,” that reduce individuals to members of a “mass society,” the latter study of which can be traced to early studies of crowd psychology, group dynamics, and the “herd instinct,” implying consumers are in some ways comparable to cattle or sheep.[6]

At the other end of the spectrum is the idea of “consumer sovereignty” which emphasizes consumers’ autonomy, power, and independence.[7] Consumers can decide when, where, and how to shop and what to purchase, if at all. Similarly, consumers may engage in consumption politically, challenging the “politics of consumption” through organizations such as the American Federation of Labor (AFL) and the National Consumers’ League (NCL) or boycott against specific products or producers.[8] This perspective emphasizes consumers as *subjects*—conscious, critical beings who are active political participants in consumer culture and the larger economy. Examples include Naomi Klein’s *No Logo*, Lizbeth Cohen’s *A Consumers’ Republic,* and Lawrence Glickman’s *Buying Power*, each of which describes how activists, community organizers, and social movements contested retailers’ practices through the use of targeted boycotts, protests, and political campaigns.[9] Klein’s book, which has been described as “a movement bible,” describes how various social movements sprung up in the 1990s combating globalization, the use of sweatshop labor, and the commercialization of public space, while historians Cohen and Glickman trace the history of consumer activism in America from the American Revolution through the civil rights movements of the 1960s.[10] Consumer sovereignty, however, largely rests upon two things: first, that consumers have control over their own identities, needs, and wants—a point the consumer-as-subject perspective strongly questions—and second, that the market is competitive, ensuring producers must respond to the expressed preferences of consumers.[11] A weakness of this perspective, therefore, is that relies upon questionable assumptions of an educated and informed public as well as the relative absence of monopolies with which businesses can largely dictate the means by which people consume.

In reality, most scholars today would likely argue that this depiction of the consumer is somewhat of a false dichotomy, placing the consumer instead along various locations on a continuum in order to emphasize varying degrees of social influence and agency, suggesting that we treat these perspectives as ideal types rather than reality. However, the introduction of self-checkouts in supermarkets such as SuperFood pose a series of important questions regarding consumers and consumption. First, it raises questions regarding the sovereignty of the consumer; are self-checkouts being introduced to meet consumer demands, or do they simply reflect a new "means of consumption" designed to control and exploit the consumer?[12] Precisely whose needs are being met? A second question centers on authenticity and the extent to which self-checkouts reflect genuine and real savings in time; self-checkouts are claimed to be faster and more convenient—but *are* they? As Goodman and Cohen note, "advertising constantly sells [us] the idea that there is a product to solve each of life's problems . . . [yet], this promise is constantly broken."[13] Are self-checkouts *really* faster and more convenient, or are these "false solutions to real and never-satisfied problems" that include waiting in line at the checkout counter?[14]

SHOPPING AS SYMBOLIC INTERACTION

As I noted previously, consumers can be *both* subjects and objects. After all, we are conscious beings that inhabit a physical body. In fact, this duality is a basic assumption of social psychology, and in particular the sociological perspective of *symbolic interactionism*, which can be summarized in three basic principles.[15] The first premise of symbolic interactionism is that *meanings guide behavior*.[16] In other words, if we want to understand human behavior, we need to know how those groups define things they encounter. In this case, that means understanding how consumers view self-checkout lanes and the meanings they associate with their use. The second premise is that these *meanings arise out of social interaction*; we learn what things mean by interacting with others.[17] For example, from speaking with managers I learned about the language and idioculture of the supermarket world, but what I really wanted to learn was what self-checkout represented to customers—did they perceive it as a convenience or a chore? This is related to the third premise of symbolic interactionism which asserts that *meanings arise out of an interpretive process*, describing the way in which reflecting on an experience can influence or reshape the meanings we ascribe to various things.[18] For example, as I mentioned in a previous chapter, a nervous customer's successful first navigation of the self-checkout lane changed the way she viewed the experience. How did other customers interpret this retail innovation?

In the remainder of the chapter, I apply this theoretical perspective toward understanding how consumers view and interact with self-checkout, drawing upon basic ideas and concepts to emphasize key points and specific findings.

STEERING SHOPPERS TOWARD SELF-SERVICE

One of the first aspects I examined concerned the way in which self-checkouts were framed. In sociology, *framing* describes the ways in which individuals, groups, and organizations perceive, communicate, and construct reality.[19] Framing can be used to deconstruct political rhetoric, speech, or in this case the adoption of self-service technology. Suppliers of self-checkout lanes, for example, framed the introduction of self-checkouts as a response to consumer demand. From their perspective, they were simply answering a market demand, fulfilling customers desire for faster checkout and shorter lines. Sales brochures described self-checkout lanes as "satisfying consumer demand for a more convenient, faster checkout experience," asserting "customers demand convenience and want to get in and out of the store quickly . . . [self-checkout] delivers by speeding up the check-out process."[20] Depicting self-service as an increasingly taken-for-granted expectation held by customers, manufacturers framed self-checkouts as contemporary "must-haves" for retailers:

> Consumers are embracing self-service technology more than ever before. In fact, they are coming to expect it. From airport kiosks and pay-at-the-pump gas stations to self-checkout lanes in do-it-yourself, grocery and warehouse stores, shoppers are consistently opting to control their own transactions.[21]

> Customers demand convenience and want to get in and out of the store quickly. NCR FastLane delivers by speeding up the check-out process. Shorter queues, greater privacy, greater control, and more choice make for happier customers and, ultimately, more loyal customers.[22]

> The self-service revolution is real: consumers demand it, businesses depend on it. Whether we are banking, shopping, traveling or interacting with a healthcare provider, more of us look for, and expect, self-service as an 'essential convenience' that improves our overall experience.[23]

Research sponsored by these companies corroborated these characterizations of self-service technology. For example, a 2003 retail study of over six thousand shoppers found that 35 percent of eighteen to thirty-four year olds indicated they would be more likely to shop in a store that offers self-checkouts than one that does not. Similarly, a more recent study cited that 86 percent of customers were more likely to do business with companies that offer self-service, while 97 percent of customers surveyed indicated they would use self-service to handle retail transactions.[24] By playing on retailers' fears of competition and their desire to allure customers, companies such as IBM and NCR cleverly marketed their products as "solutions," implying that retailers had a "problem"—a classic and effective sales technique.

Meanwhile, store managers worked assiduously to frame self-checkout lanes as an "option" or "choice" rather than a requirement, soft-pedaling the technology as an added service, subtly reinforcing the perception of customers' autonomy, and reassuring existing customers that they were not going to be "force-fed" self-checkouts:

Dan: At no time has SuperFood, in this store—I can't speak for other stores—have we ever told a customer the only option is self-checkout. We do not force feed that. We will not take a position of that's the primary service that we have in the store. That's an option. That's always been an option to our customers. And I think it's hard to get away from that. I do not ever see a SuperFood store, and I may be wrong, or a retail food store just strictly being self-service. That's how we approached it: we don't force feed it. I'll give you an example. Our store, we have them as you come into the store, the first five terminals are self-checkout. We almost tore them out of here because we didn't like, corporate didn't like, how they were placed. We almost took them out of there, took them out of the store, and we almost placed them all the way down by the end because we felt like they were really in the wrong location. Because of our thoughts as a corporation, we don't want our customers to perceive that they're being force fed through those terminals.

Yet, retail marketing research indicates that a store's layout is in fact quite deliberate, often for the express purpose of exposing or presenting customers to certain products or displays and increasing sales. Paco Underhill's description of the "science of shopping" in his bestselling book *Why We Buy* highlights, among other things, the structural aspects of stores and how the store layout relates to consumer psychology and behavior. Product placement, signage, and the overall layout of a store, he argues, can make the difference between a customer making a purchase or not. By examining consumer behavior, he argues, stores can realign their retail environment to maximize encountering certain products and increase sales. For example, there is a reason candy, magazines, and sodas and other "impulse" purchases are placed in the checkout aisles. Stores strategically placed self-checkout lanes closest to the doors, implying they were the fastest shopping exit from the store.

In fact, retail marketing research indicates that this is precisely what stores like SuperFood were trying to do. Self-checkouts were purposefully and deliberately located in certain areas of the store in order to promote and increase their use. Under a section titled, "Driving Usage through Customer Education," a 2004 study on self-checkouts noted the various methods stores used to increase their use. These included not only advertisements and store incentives, but also self-checkout placement:

> Retailers are also strategically positioning self-checkout lanes to maximize transaction volume. One grocery retailer notes, "We install self-checkout

> lanes in the fresh [produce] aisle because that's where customer typically end." Additionally, retailers are steering traffic through self-checkout by utilizing the announcement system and cashiers at traditional lanes to introduce self-checkout as an option.[25]

The same report also notes that in some cases, "retailers have modified their lane staffing plans to drive usage at the self-checkout."[26] In other words, customers are not only physically directed toward their use by design, but are also prodded and cajoled through the use of various media and communications, as the report notes, "external communications can lead to increased usage."[27]

Customers, however, did not always perceive self-checkouts as an option. For example, Bill suggested stores deliberately controlled the number of cashier lanes open in order to subtly channel customers into the self-checkout lanes, a comment I heard repeated by other shoppers:

Bill (local UFCW president): You can't show me a customer who'd rather go through self-checkout if there were enough cashiers. The problem you have is they under schedule cashiers, don't open the lanes, and there's self-checkouts. So they force people into the self-checkouts. And they'll deny that, but that's what they do. I shop. I don't use them, obviously, but I'll have managers come up if the lines are long and say, "there's four self-checkouts right there." I say "I don't take people's jobs away from them. What you need to do is schedule or get some more cashiers so that we can get the service we want in your store."

When there are only a handful of checkout lanes open, self-checkout may indeed seem like the only option, especially when the alternative is waiting in a long line at a handful of open lanes. My field notes indicated that even during peak hours (e.g., 5–7 p.m. weekdays), some stores only had a handful of lanes open, sometimes as few as four in a store that had nearly twenty lanes. In these circumstances, self-checkout may feel like the only option for customers, who must decide between waiting in line and the "option" to do-it-yourself.

Meanwhile, at Century Village elderly customers protested when they felt they were being deliberately steered like cattle toward the self-checkout:

Mike: Some customers accept technology. You know computers and everything out there. They enjoy using it. [The] ones in my particular case, which are elderly, they don't like change. They don't like to use it. So, where most stores have probably around thirty percent of their customers that use it, I have about eighteen percent of mine that use it. But like I said, when they were first installed, we had them installed down [lanes] one through four. Currently, they're at the opposite end, [lanes] ten through fourteen, and one of the reasons why I had to have them moved is because, you know, most of my customers are seniors. They want to take the easiest route to get to the door. They want to do less walking. So, a lot of the complaints I got was I'm making them walk further down the line to get to a cashier and then walk further to have to get to the door. So, that was one of the reasons. Plus, I moved it down to give them an option. So, if you wanna' use it, you can walk down there and use it. If not, then I got cashiers one through ten.

For older clients who measured their days not in terms of hours but numbers of steps, placing the self-checkout by door made it seem more like an imposition rather than an option. This resistance, however, was not limited to stores with older clientele. In fact, nearly every one of the managers I interviewed indicated that there was at least some initial resistance to self-checkouts from customers, if not outright refusal, implying the decision to adopt self-checkouts was not being driven by customer demand; in fact, it was being instituted *in spite of it*. According to Barry, "the backlash was horrendous," while Vince stated introducing self-checkout was such as "nightmare" that SuperFood ultimately decided to remove it from two locations.

In short, customers, managers, and SuperFood did not share the same frame or "definition of the situation"; managers presented self-checkout as a "choice" or "option," but customers didn't necessarily see it that way—a sure-fire recipe for a retail disaster.[28] In his classic book *The Presentation of Self*, Erving Goffman notes that in social interactions there are two levels of communication, the impressions "given" (e.g., verbal statements) and the impressions "given off" (e.g., nonverbal cues).[29] In order to maintain a consistent and credible impression, these two levels of communications need to be consistent. In SuperFood's case, the message being given to customers didn't seem to correspond with what they observed, leading them to either question what they were told by managers or arrive at a different definition of the situation that seemed to offer a better explanation that resonated with their existing views, a phenomenon psychologists refer to as "confirmation bias."[30] In a complex, changing world one might reasonably expect people to have different interpretations or views of reality. After all, Americans have different views ranging from politics to the paranormal; for example, Americans remain sharply divided over whether climate change is man-made or natural, while according to a Gallup poll about three in four Americans believe in paranormal phenomena such as ESP or ghosts.[31]

Perhaps a better way of understanding these different explanations is by viewing them as "vocabularies of motive," statements offered to explain seemingly unusual or questionable behavior that draw upon socially accepted reasons or explanations.[32] In other words, just as we learn that there are rules or social norms for various situations, we also learn that there are accepted vocabularies of motive for explaining our actions.[33] For example, some shoppers told me they refused to use the self-checkout lanes because they eliminated jobs, while others explained their preference by asserting they were faster than the regular cashier lane, offering rationalizations that reflect larger societal values of work and convenience. Whether or not these assertions are true is irrelevant; what they reveal are individual's motives as well as the social norms and values the individual perceives to be relevant to the given situation. These vocabularies of motive may also vary over time as well as across social groups and institutions, reflecting the way in which norms or values may vary across social contexts, meaning what may seem to be a logical or satisfactory reason in one context (e.g., automating jobs when labor is in short supply) may be regarded as unreasonable or unsatisfactory in another (e.g., automating jobs during a recession).

There are also different vocabularies of motive or "motive talk"; *excuses*, for example, explain unusual or inappropriate behavior by citing factors beyond one's control (e.g., a tight labor market), while *justifications* defend one's actions by citing higher authority or social values (e.g., citing customer demand).[34] For example, while Publix initially opposed the adoption of self-checkout lanes as "countercultural" to their corporate culture of personal service, the chain later justified their use in several locations because they were already installed in those acquired stores, while several managers at SuperFood offered excuses for their use by citing labor shortages and low-wage labor market competition, minimizing the fact that they actively helped create such problems by offering low-wages and fragmented work schedules.[35] SuperFood managers also provided accounts that challenged critics' claims that self-checkout lanes were eliminating jobs by pointing to unchanged staffing levels, technical problems, and corporate policies that restricted their use, characterizing them an "option" rather than "force-fed." In short, retailers offered a series of accounts, excuses, and justifications that emphasized market forces (e.g., consumer demand, labor markets) while minimizing their role in actively shaping those same forces (e.g., labor contracts, wages), presenting a reasoned if not wholly self-serving narrative.

Most customers, however, viewed their use quite differently, perhaps in part because their introduction coincided not only with the growing computerization and outsourcing of work but also the largest economic recession in nearly a century. Nearly two-thirds of the shoppers I interviewed described their addition as an attempt by stores to cut costs (see Table 5.1). Within this group, more than 80 percent made explicit reference to stores having fewer employees, directly associating the new technology with job loss:

Male customer (age 61): "Probably to cut costs of workers. So they can use fewer workers."
Stay-at-home mother (age 50): "It's cheaper. They don't have to pay the people who do the checkout."

Table 5.1 Customers' Responses to Question, "Why Do You Think Stores Are Adopting Self-Checkouts?"

Response	*Percent of Customers (number)*
Cut costs	65
Faster / More convenient	14
Provide choice	1
Customer preference	8
Don't know	18

Note: Percent totals may exceed one hundred percent due to customers providing more than one response.

Retired male customer (age 70): "Get rid of the cashiers and checkout people. They won't have to pay them if we do it for them. That's what I think. I think a lot of people think that."
Retired male customer (age 73): "If they can get customers to do more of the work, checking out our own groceries, they won't need as many cashiers, right? They're not paying those people who use self-checkout, do they? Well, there you go!"

In short, a majority of the customers I spoke with viewed self-checkouts as part and parcel of the larger economic trend of corporate belt-tightening, outsourcing, and automation. In fact, the *timing* of the introduction of self-checkout lanes likely played an important role in how they were perceived the shopping public. For many Americans, the time at which self-checkouts were introduced was a time of national economic crisis and hardship. Although the first self-checkout was introduced in 1992, they were not introduced on a large, national scale until the mid to late 2000s, right when a financial crisis and collapsing housing bubble led to Great Recession. During this period, more than eight million Americans lost their jobs and nearly four million homes were foreclosed, in part due to risky credit default swaps and subprime mortgage backed securities. Perhaps consumers viewed self-checkout lanes as just another sneaky scheme or sleight of hand designed to take advantage of unwitting customers. As I pointed out in chapter 3, trust in America was at an historic all-time low; according to the General Social Survey, during the period I was interviewing shoppers in stores, less than a third of Americans reported that other people could be trusted. No wonder they didn't believe what they were being told by store managers.

In fact, several managers explicitly stated that they scheduled more staffing at the front end of the store precisely to combat perceptions of job loss:

Jack: The first and loudest complaint I got at the store I was in when they installed them was, "We like our cashiers. You're taking their hours away. You're cuttin' their hours." And that was easy to address because we added hours.
Barry: We added hours. I can't remember if I added them myself or if it was my district manager but we added hours to the front end of our store down in

Springfield. So, I was able to combat that because a lot of the cashiers, through their talking to their favorite customers, they got that impression maybe that they'd cut an hour or two. . . . But I do know that I added hours because I wanted to make sure that we didn't have that perception. The last thing I want to do is have one less cashier and four machines down there to foster that idea because that's not what we want it to do.

Shoppers may have also been suspicious because anticipated job loss due to self-service and automation was becoming a popular story in the national media. In the course of conducting my research, I came across countless newspaper and magazine articles, both at the local and the national level, lamenting the prospect of technological unemployment. Meanwhile, books about automation and predicted job loss such as *The Second Machine Age* and *The Rise of Robots* became become bestsellers, suggesting that economic fears about technology were both abundant and resonated with the American public. If customers didn't believe what managers were saying, perhaps it was because it conflicted with what they saw and read in the media with economists, journalists, and labor experts occupying a higher rung on the "hierarchy of credibility" than their local supermarket manager.[36]

WHAT DO CONSUMERS WANT?

If most of the customers I interviewed didn't want self-checkout, what *did* they want? More of the same, really (see Table 5.2). Specifically, more than half of the shoppers I interviewed expressed a preference for the traditional human cashier over self-checkout. If the categories reflecting no preference or a preference based on contingencies (e.g., depending on the number of items) are removed, this increases to nearly 70 percent. This finding mirrors a similar rate observed in a joint marketing study sponsored by KPMG and Indiana University, which found that approximately 55 percent of respondents reported that cashier checkout and bagging was a "must have" shopping feature; the same study also found that nearly one in four respondents indicated they would prefer stores *not* to have self-checkout lanes.[37]

What in-store shopping features did customers cite most frequently as "must-haves"? The top items for checkout were a cash payment option, printed receipt, and the ability to pay by credit card, followed by the option to pay by check and debit card, suggesting that customers still valued basic amenities over new high-tech gadgets. "Consumers tell us they are not interested in technology for its own sake," says Raymond Burke, professor of business administration at Indiana University. "People want the basics . . . and are only interested in technology to the extent that it makes shopping faster, easier, and more economical."[38]

Table 5.2 Customers' Preferred Method of Checkout

Stated Preference	*Percent*
Human cashier	51
Self-checkout	23
It depends…	23
…on the number of items	12
…on the length of lines	11
No preference	3
Total	100

Market research also suggests that some customers will even select one store over another simply because it offers self-checkout. According to a 2004 study, nearly 35 percent of customers aged 18–34 indicated that they would be more likely to shop at a store that offered self-checkout than one that does not.[39] However, when I asked if the availability of self-checkouts influenced where they decided to shop, only three customers indicated that it did, yet of these three, only one responded that it positively influenced their decision. The other two respondents actually preferred to shop at stores that did *not* offer self-checkouts:

Author: Do you typically shop here?
Customer: No, I usually shop at Food Barn.
Author: And may I ask why?
Customer: I prefer to shop there because they don't have self-checkouts.
Author: Does the availability of self-checkout influence where you decide to shop?
Customer: Yes—the more there are, the less we go!

In short, most customers reported a preference for human cashiers and justified their avoidance of the self-checkout lane by asserting their use contributed to job loss. In the following sections, I describe several additional vocabularies of motive offered by shoppers to excuse or justify their use of self-checkout lanes.

PERFORMANCE ANXIETY

Waiting—or more specifically, a fear of making other customers wait—was another factor cited by several respondents. "I'm not a fan of making other people wait," reported one shopper, while another confessed, "[I'm] afraid it will get hung up. I don't want to make people wait." In other words, some shoppers justified their abstention from the self-checkout lane by citing the potential inconvenience they might create for other shoppers, suggesting they were avoiding the self-checkout lane as a courtesy rather than an economic protest.

Other accounts, however, suggest shoppers' avoidance is less a courtesy than an act of self-preservation, allowing shoppers to save face by avoiding a potentially awkward and uncomfortable situation. Given that self-checkout is promoted with characterizations of "faster checkout" and "shorter lines,'' one might expect the self-scanning crowd to be more relaxed and pleased than their brethren waiting in line for the cashier. Yet, as one journalist observed, the expectation for speedy checkout and shorter lines means, "the line with no cashier has the most impatient people":

> Pressure? You don't know pressure until you're in the self-checkout line at the grocery store and your cauliflower doesn't scan and freezes the computer and there's a line of shoppers shifting from foot to foot, heaving deep sighs and giving you the evil eye because, obviously, you are keeping them from attending to a matter of life and death, such as catching the Sopranos episode they forgot to TiVo.[40]

A reporter for the *New York Times* captured this sense of "performance anxiety" describing his own experience in the self-checkout lane:

> I dreaded the thought of standing before the machine, bewildered, as fellow-shoppers cursed. As it turned out, I did all of the cursing myself. While the machine barked commands, accusing me of moving my items in some unauthorized way, I scanned and rescanned frantically, trying to appease it. After paying by credit card and snatching, I found that I had paid three times for one box of screws. To undo the damage, I would have to rejoin the line I had abandoned in the first place. I left in a sweat, desperate for a drink.[41]

Frustrated with his initial experience, he decided to make a second attempt when the store was less crowded and the pressure less intense:

> Like MacArthur, I vowed to return. I picked an hour when the store was virtually empty, cutting down on performance anxiety. I scanned. I paid. I left.[42]

Allusions to Julius Caesar aside, although some shoppers may improve their scanning skills with subsequent trips to the self-checkout lane, others may opt to simply avoid it altogether or forestall its use just as one might a trip to the dentist. For example, here is an exchange I had in the parking lot with a middle-aged female customer:

Author: Why do you use the self-checkout?
Customer: [laughs] I've never used it!
Author: Why?
Customer: I'm intimidated. I feel like I'm going to jam it. Everyone's behind, waiting.

Author: Did you have problems?
Customer: It works fine. I've never had any problems. One day I'll be brave enough! [laughs]

Yet, in the same conversation she revealed that this avoidance was limited to the self-checkouts in supermarkets, confessing to having used the self-checkout lane at a retail hardware store:

Author: Have you always felt this way about self-checkouts?
Customer: Only in supermarkets. I've used them at Home Depot.
Author: Really? Why?
Customer: The lines were so long I got tired of waiting. I said to myself, "you can do this!"

Like the reporter cited earlier, she was proud of having conquered her fears, yet it is hard to overlook the role anxiety played in her decision-making. When customers make errors bringing the checkout process to a halt, it may be perceived as a public embarrassment or personal inadequacy requiring intervention. For example, a market study found that over half of the respondents indicated that the one thing they disliked most about self-checkouts involved transactions that are halted in midstream and require employee intervention.[43] If self-checkouts connote a "do-it-yourself" ethos, halted transactions that require employee assistance may connote perceptions of helplessness and inadequacy. Moreover, because self-checkout lanes are framed in terms of speed and reduced checkout time, it creates a generalized expectation using these as guiding principles. Therefore, customers expect a fast checkout in the self-scan lane, and when it is their turn, imagine how their performance is being evaluated by others, describing a sort of "looking-glass self" effect in which imagined perceptions and judgments elicit feelings of pride or embarrassment.[44]

THE VALUE AND COST OF SOCIAL INTERACTION

While some customers elected to go to cashier-operated lanes in order to bypass potential discomfort, others commented on the social interaction lost in the self-checkout lane. "I hate self-scan, hate it," said one customer. When I asked her why she replied, "Because I like talking to people." In fact, according to Barry some customers shop at SuperFood because they know and enjoy interacting with the cashiers:

Barry: I've found here, every store I've been in, you have a very loyal, committed base and if you have a veteran staff they know those people and they care about them. That's where some of the motivation is [for shopping at a particular store]. There's a handful of SuperFood groupies out there. Every store's got 'em.

Groupies or not, Barry's comment highlights the value certain customers place upon routine interactions with cashiers in the supermarket. "We know them—they're friendly and it's a good social experience," remarked a customer in describing her preference for cashiers over self-scan. Despite any potential convenience or savings in time, some customers expressed ambivalence toward eliminating social interaction in yet another sphere of economic life:

Female customer (age 27): I'm not a fan of machines taking over people's work. I don't know. It eliminates social interaction. I remember thinking about pay at the pump and ATMs and shopping on the Internet and how they're all eliminating social interaction—you know, interacting with other people. And I'm not saying it's bad, but it is changing how we do things.

Her statement reflects the increasingly automated and electronic nature of today's economy, in which consumers can deduct cash from their account at an ATM, buy a plane or movie ticket on the Internet, and check-in at the airport all without interacting with a single human being. Yet, while some customers bemoaned the loss of social interaction, others appeared to prefer self-checkout for precisely that reason. According to Robbie Blinkoff, principal anthropologist and managing partner of Context-Based Research Group in Baltimore, it isn't because of a diminished value on social interaction. "Younger people have discovered which situations are face-to-face-worthy and which are not. For them, a grocery store transaction does not qualify," states Blinkoff.[45] In the language of sociologists Emile Durkheim and Erving Goffman, comments such as these would seem to suggest that face-to-face interaction—the very exchange of "face" itself—may not only be "sacred" but scarce, something to be conserved rather than spent at such mundane places as the supermarket.

Nevertheless, these findings raise an important question: is there a greater preference for self-checkout among younger shoppers? My findings indicate that respondents who preferred self-checkout were in fact, on average, younger than those who those favored the face-to-face interaction of the cashiers' lane; those who preferred self-checkouts averaged thirty-three years of age compared to the average of fifty-three years among those preferring the cashiers' lane.[46] These results corroborate IHL executive Greg Buzek's findings on age-based differences in regards to preferences at the checkout lane. According to Buzek's research, 21 percent of 19–35 year olds polled indicated that they use the self-checkouts because they just don't want to deal with people. Only 14 percent of 36–55 year olds opt for self-checkout, while 95 percent of those above that age group prefer human interaction with cashier lane.[47]

Assuming these findings reflect true differences, why do younger shoppers prefer self-checkouts? One oft-cited explanation is that today's tech-savvy younger generation of "digital natives" are simply a product of their socialization, having grown up immersed in a world filled with iPods, laptops, and the Internet.[48] For example, Buzek notes a strong association between those who regularly use self-checkouts in stores and those who use it in other places, such as the airport or at the bank. "Basically, the more you are accustomed to interfacing with a computer, the more you like it," he says.[49] A recent marketing study documented this correlation, finding that consumers who had used self-service kiosks at airports were significantly more likely to report liking self-checkout.[50]

A well-supported principle in social psychology is that proximity and frequency of interaction breeds liking.[51] This pattern extends to objects as well as people, implying that customers may like automated means of conducting transactions simply because they are familiar and frequently encountered in their everyday lives. As younger generations of Americans grow up in an increasingly computerized world, they may in turn come to desire and expect computer-based transactions such as self-checkout. For example, in her book *Alone Together*, MIT technology scholar Sherry Turkle describes how younger generations increasingly prefer to communicate indirectly via text or instant message rather than through direct forms such as phone calls or face-to-face conversation (Figure 5.1).[52]

Generational differences aside, there may also be some who opt for self-checkout because of fatigue from spending all day working with people. When interviewing store managers, I asked them not only about their views of self-checkouts as managers but also their own personal views as shoppers. Although their responses varied, Barry's stood out and highlights yet another reason:

Author: When you yourself shop, which do you prefer—the cashier lane or self-checkout?
Barry: I prefer the self-checkouts.
Author: You prefer the self-checkouts.
Barry: I don't wanna' talk to a cashier. I don't want to have to do small talk. You do it all day long. I don't even shop in my own store anymore. When it's time to go home, I go.

In today's increasingly service-based economy, workers who spend a majority of their day negotiating employee-customer interactions may

Figure 5.1 Not in the Mood For Human Interaction.

welcome the solitude offered by the self-checkout lane. With Americans spending more of their time at both work and home interacting with other people via social media, self-service may be welcoming precisely because of the nonhuman aspects others find to be dehumanizing and isolating. In a service economy, consumers may prefer self-service precisely because it does not involve having to interact with people or perform emotional labor. For people like Barry, who spend eight or more hours a day working with people, the absence of social interaction may in fact make self-checkout *more* alluring rather than less.

CHALLENGES TO SOVEREIGNTY: WHO IS IN CONTROL?

Shoppers who indicated preferring the self-checkout lane cited another factor as well—control. Newspaper articles suggested that some shoppers enjoyed the sense of control, setting the pace and being able to check item prices. "I feel like I'm in control of my own time," told a shopper to a reporter, while another noted "you can go at your own pace."[53] Even self-scan manufacturers noted the importance of control, claiming their product was, "giving someone the power to do what they want to do."[54]

In the course of my own interviews, one female shopper confessed that she preferred self-checkout because she was a "control freak." "I just prefer it. I'm a control freak. I like doing it myself, bagging things the way I want. I'm a control freak. I don't like how they bag [items] in the regular lane," she said. Customers using self-checkout can bag their groceries however they please, which may appeal to shoppers who sort bags at home or want their items packed a certain way. For example, shoppers may elect to have certain items place in bags designated for the pantry, while those walking home may want double or triple bagging of their purchases to protect and ensure they arrive home intact.

Other shoppers preferred self-checkout because it allowed them to check and compare product prices. Instead of the awkwardness of peering over the cashier's shoulder to check the products being scanned up on the register, customers can independently scan and check each item's price. Michelle, who managed the store at Travelers' Gate, expressed her surprise at her elderly clientele's response. Based on what had previously happened at Century Village, Michelle had expected to find resistance among older shoppers. Yet, she found that many of her older patrons embraced the technology, in part, she said, because it allowed them to check prices, an important factor for older shoppers living on a fixed budget.

Indeed, self-checkout may appeal to some customers precisely because it provides a sense of autonomy and control. Kathleen Kirby, a licensed psychologist and part-time professor at the University of Louisville, suggests that part of the attraction and popularity in self-checkouts may be due to the perception of offering more control to customers.[55] Numerous studies by social psychologists have documented the positive association between control, mastery, and self-esteem, highlighting the notion that people like feeling in control and will tend to avoid situations in which they feel they are not.[56] Accordingly, self-checkout lanes may offer shoppers what is perceived to be a more independent and less stressful means of buying groceries at the local supermarket. Instead of depending upon cashiers and clerks to confirm product prices and ensure proper bagging, customers may elect to "do-it-yourself," in order to ensure the outcome is tailored to their personal liking.

SELF-SERVICE AS THE NEW INDUSTRIALISM OF THE WORKPLACE

However, customers are far from being completely autonomous, independent participants. On countless occasions, I witnessed what seemed to be a re-enactment of the classic film *Modern Times*, in which Charlie Chaplin, playing a factory worker, struggles to keep up with the inhuman pace of the assembly line, a skit reenacted years later by Lucille Ball on the popular sitcom *I Love Lucy* as she and her friend Ethel frantically tried to keep pace wrapping chocolates on an assembly line in a candy factory. The underlying notion depicted is that under industrial production processes—and the assembly line, in particular—it is the machine, not the worker, setting the pace. There was also the implication of some loss of control, or perhaps even power; in fact, when factories began using large machinery and assembly lines, some employees responded by sabotaging the machines that threatened to usurp their power.

Here, the issue is not with production but consumption, yet arguably the same underlying dynamics apply. Like industrial production, we have a scenario in which new technology is being introduced to the workplace. And, as it has been documented in various workplace studies, those affected by the new technology may choose to express their displeasure or frustration via acts of sabotage or resistance.[57] Indeed, one of the major criticisms of sociological perspectives on work has been their focus on control and management structures, placing too much emphasis upon the constraining and coercive aspects of work and too little upon the agency and consciousness of individual workers.[58] Accordingly, scholars have begun to shift their focus toward understanding how and why workers resist and misbehave in the workplace.[59]

Applying this shifting focus from the sphere of production to consumption implies shifting a focus from structures of control, coercion, and manipulation toward one that includes the agency and consciousness of consumers. In practice, this means focusing not simply on advertising, product packaging, and new means of consumption such as self-checkout lanes but also on consumers and how they perceive and respond to such commercial structures.

In addition, consumers are different from workers in important ways. Employees are constrained by the underlying basis of their relationship to the business. Working for someone else, be it a person or a corporation, involves abdicating a degree of authority and submitting ones' labor in exchange for salary or wages. Consumers are not bound by similar constraints. In fact, it is this absence of formal subordination in the market that led economists such as William Hutt to assert that "the customer is king."[60] Customers can choose when and where to buy, and whether to buy at all. And in the U.S retail food industry, there are a vast number of businesses from which to choose, with more than 200 chains and 38,000 individual stores nationwide.[61]

In the case of self-checkout, consumers can and do resist. As managers noted, some customers frustrated by it may simply walk away (e.g., "walkoffs"). Customers are under no obligation to use self-checkout, nor are they required to continue to use it once a transaction has begun.

Thus, consumers may aspire to remain sovereign and resist submitting to new business practices such as self-checkout. As managers emphasized, self-checkout in SuperFood stores is presented to the customer as an "option," not a mandate. And in certain cases, stores may yield to customer pressure, reflected those several cases in which self-checkouts were removed, reduced in number, or relocated in response to customer complaints.

Yet, in order to successfully complete a transaction using self-checkout requires some accommodation on the part of customers, who must follow prompts correctly in order to complete their transactions. Control, in this case, is a two-way street; businesses may encroach upon customers by asking them to "do-it-yourself," but ultimately depend upon customers' willful participation. Meanwhile, consumers who consent to using self-checkout may ultimately have to reconcile the notion that they are no longer in control of the transaction but are merely willing participants, following prompts, pushing buttons, and dutifully clearing items when they are told, "there is an unexpected item in the bagging area." In terms of consumer sovereignty, this means that the customer or "king" seeking a speedy and convenient purchase in the self-checkout lane may be asked to abdicate the throne, albeit temporarily, and yield authority to the machine. Upon completing the transaction, the monarch may resume his rightful place, forgetting he ever submitted himself to anyone, let alone a machine, and leave the store a free and sovereign consumer once again.

FASTER CHECKOUT?: THE FALSE PROMISE OF SELF-CHECKOUT

The single greatest reason customers gave for choosing self-checkout was speed, mirroring similar results found in retail studies. "They're quicker. It's fast. No lines," noted one customer, while another commented, "it's faster than waiting in line." Even some of the managers I interviewed expressed their preference for self-checkout in terms of speed:

Author: Let's get back to you as a shopper. You say you love it—why?
Karen: Love it!
Author: Why do you love it?
Karen: It's so convenient, you're in and you're out. I love it.
Author: You think it's faster than going through the regular checkout?
Karen: Yes. I was in a SuperFood last week, as a matter of fact, and a lot of the customers were in cashier lanes because they were afraid to try this new system. I ran straight to it. And I just love it. I was in and out and they were still in these long lines!

Indeed, much of the appeal of self-checkout appears to be in its promise of faster checkout and shorter lines. In order to understand the appeal of these claims, one must understand the degree to which American consumers dislike waiting in line. A survey on the cusp of the holiday shopping season found that nearly sixty percent of consumers cited long checkout lines as the number one complaint of the holiday shopping season, while a *New York Times* article describes waiting in line as "a timeless form of torture," noting that Americans spend roughly 37 billion hours each year waiting in line.[62]

Self-checkout promises customers relief from long lines. NCR's product brochure claims FastLane "delivers by speeding up the check-out process," while IBM's asserts their self-scan product "provide[s] a faster checkout experience for consumers."[63] How do they do it? "Adding self-checkout lanes means adding more open lanes, which helps to shorten lines and provide a faster checkout experience for the consumer," notes IBM, while NCR adds that "retailers report up to a 40 % reduction in average queue time."[64]

Faster checkout, shorter lines. But is it true? Home Depot seemed to think so. "The self-checkout has reduced length of lines by a third and the time spent in lines by a third," said John Simley, spokesperson for Home Depot. "We estimate that 30 percent of all sales are made through self-checkout at stores equipped with them."[65] Barry Scher, spokesperson for Giant Food, Inc. agreed. "They enable customers to get out of the store quicker," he said.[66]

Reports from journalists, however, suggested otherwise. One reporter examining the self-checkout trend at a store in New York City reported "cart-to-cart" traffic in the self-checkout lanes, while another simply concluded that, "the machines are not any faster than human checkers."[67] Why? According to some shoppers, there are simply too many product codes and variations in items. "I suppose if a person has a very few items, the scanner may be a fast option. However, on produce it is impossible. There are so many kinds of onions, potatoes, and fruits with different prices. You have to know the name of each kind, which takes up too much time and effort to do," told a shopper to a reporter.[68]

My interviews with customers yielded similar complaints regarding products without labels, especially produce. "If they all had UPC's, it'd be boom, boom, boom!" noted one customer. Instead, purchasing products without UPC labels requires customers to search through electronic code books, matching pictures and names of produce to the items in question, and then weighing it on the electronic scale. This not only adds to the checkout time, but can also lead to frustration and confusion as customers scroll through screens of more than a dozen different types of apples.

Indeed, my field notes indicated numerous cases in which customers fumbled and fiddled with items, searching for bar codes and struggling to enter produce items. In fact, more often than not cashiers and checkout clerks were required to assist customers using self-checkout. At Century Village, Sarah reported having to assist nearly 90 percent of the customers, while at Travelers' Gate I couldn't even complete my initial interview with Henry because he was frantically trying to keep up with the pace of customers requiring assistance.

Retail analysts also cite what some may feel is a misunderstanding in self-checkout etiquette. According to Michael Banks, partner and owner of Select Marketing LLC, "the #1 way to speedup checkouts," he wrote, "is to slap shoppers upside the head and remind them of where they are":

> Are you going to write a check? Then have it pre-written (except for the amount) and have your pen in hand to fill in the remaining information. You've got plenty of time to do this as you wait for other idiots to check out. Are you going to pay in cash? Then have it in your freakin' hand. Are you going to use plastic? Then be familiar with how it works: Swipe it according to directions. . . . Speaking of purses, don't take forever to reload all the crap you've removed from your purse during your transaction. Think of the people behind you, and toss it into your purse for later reorganization.[69]

While some of this critique entails a societal redefinition of checkout etiquette, it also implies a subtle, albeit significant, reorienting of shoppers' behaviors and habits in order to streamline sales transactions. Rather than catering to the customer, comments such as those above imply that customers ought to in fact cater to the checkout process—in this case, a computerized checkout machine—reflecting back to the previously discussed issue of "control."

There are also numerous doubts regarding the purported speed of self-checkout, illustrated in experiments and tests conducted by the media. As *New York Times* reporter William Grimes learned, the speed of self-checkout may in fact be illusory:

> The entire process may go more quickly, but the scanning itself does not, as I found when I went mano a mano against an experienced Stop & Shop cashier. We each scanned the same 10 items. My opponent not only scanned and bagged in 20 seconds but also managed to slip in a greeting, "Welcome to Stop & Shop." It took me one minute and 15 seconds, without bagging.[70]

A similar study by the magazine *Good Housekeeping* yielded similar results. Testing new high-tech methods of completing everyday tasks against older, established methods, the magazine found that in many cases, the new high-tech methods in fact took longer. For example, they compared how long it took to purchase movie tickets at a box office to the amount of time it took to order them online. They found that the average time it took the tester to get the ticket from the box office was two minutes and forty seconds; the average time it took online was 5 minutes and 24 seconds. How did self-checkouts measure up to regular checkout? Tests found the average time to complete a purchase using self-checkout was 5 minutes and 33 seconds—faster than the average time of 6 minutes and 55 seconds it took testers using the regular checkout. This would appear to suggest that self-checkouts are in fact faster than the tradition checkout lane. However, they noted that if there are an equal number of people waiting in line at each lane, the regular checkout lane is actually faster.[71]

The reason the regular lane may be faster reflects the underlying economic traits of the various actors involved, and highlights a key factor—skill. Although customers may be eager to scan their own items, oftentimes they struggle to locate hard to find produce codes or distinguish the difference between various types of apples. After his second-place finish, Grimes noted, "in my defense, let it be noted that the cashier knew all the produce codes by heart. I had to use the picture dictionary on the touch screen, which, in truth, is lots of fun, but burns precious seconds."[72] The IHL Consulting Group found similar results to the *Good Housekeeping* experiment in their study, noting "the actual transaction process is faster with staffed checkout because of the experience of the checker and the avoidance of delays from the security feature of the self-checkout devices."[73]

Although much of what cashiers do is considered to be unskilled work, there is a considerable degree of knowledge concerning products codes and their locations on various items and products. And with countless hours of experience under their belts, cashiers can perfect the technique of scanning even those hard-to-scan items. In other words, shoppers are amateurs and dilettantes, eager to take the reins from cashiers, yet do so with considerably less skill and precision. There is hope for aspiring shoppers-cum-cashiers, however; Grimes notes that with practice, as well as a bit of expert advice, shoppers may eventually catch up to the cashiers:

> By this time, my scanning technique was under control. Mike Vittorio, a technical specialist at Stop & Shop, analyzed my motion and offered one criticism, which I pass along to rookies. Do not go into contortions trying to make the bar code face the beam underneath the glass plate. A mirror set at right angles to the glass picks up the bar code if you pass the item naturally, in an upright position.[74]

In fact, most of the customers I interviewed stated that they thought the regular lane—*not* the self-checkout—was faster (see Table 5.3). When asked why they thought the regular lane was faster, customers gave reasons that in turn emphasized differences in experience and skill:

Table 5.3 Are Self-Checkouts Faster Than Regular Checkouts?

Response	*Percent (%)*
Yes	21
No	37
Depends (e.g., length of line, number items)	28
Don't Know	14
Total	100

Author: Why do you think the regular lane is faster than self-checkout?
Customer: They're faster because they know all the barcodes and stuff.
Author: Why do you think the regular lane is faster than self-checkout?
Customer: They're professionals at what they do. They can probably do it at a faster pace than someone like me.
Author: Do you think self-checkout is faster?
Customer: No, 'cause people mess up and then you have to wait!
Author: Do you think self-checkout is faster?
Customer: No, because I make mistakes or do something I'm not supposed to [do] and the machine stops.

Those who responded "it depends" frequently cited a number of contingent factors, including the number of items and the length of the line, but also the experience and skill of the user:

> "Yeah. Well, if you know what you're doing."
>
> "It depends on who's doing it. I'm really slow but I bet some people [can] do it faster than the cashiers."
>
> "It all depends on the person in front of you."

> "They can be. It depends on how much you have and whether you know what you're doing, how the machine works. If you get stuck behind someone who doesn't know what they're doing it can be really slow. But if they know what they're doing it can be pretty quick."

The sentiment that "it all depends on the person in front of you," was echoed by managers as well whose comments underscored the contingent factors of skill and experience:

Author: So do you think they're [i.e., self-checkouts] faster than going through the regular checkout?
Barry: They can be. They can be. I hate waiting in line behind some people, some customers because they don't know, they're not—they don't have any experience.
Author: So whether or not they're faster depends on-

Barry: It's all the operator. Whoever's using it. Whoever's using it. And I have the uncanny ability to get behind the worst customers in the world. I picked the wrong one. I picked the one where the guy can't get the system to work.

Because many customers have little or no experience in retail sales, it may perhaps come as no surprise that they fail to see self-checkout as a faster alternative to the cashiers' lane. Yet, among managers, who are vastly experienced in retail, there was an expressed sense that for them self-checkout was in fact a faster alternative to waiting in line:

Rachel: I find myself, when I have to shop, I [use self-checkout].
Author: So when you shop you pick to do it. Why do you pick to do it?
Rachel: Because, I—[laughs] Because I'm probably a lot faster.
Rick: You know, I go through there in no time. But when you get the ones that don't know the produce codes and you get the kid to come over and help them with it—then it will slow things up.

In sum, whether or not self-checkouts are a faster alternative to the regular cashier lane depends upon a number of factors including the length of line, the number and type of items (e.g., produce vs. nonperishables), and the familiarity and skill of the person operating it. Moreover, this assumes that there are no computer malfunctions or glitches in the operation of the machines; as noted in the previous chapter, self-checkouts require considerable maintenance and are prone to occasional errors, malfunctions, and "freezes."

Yet, in an experimental head-to-head competition in which these factors were controlled, self-checkouts still failed to beat the regular cashiers.[75] This suggests that self-checkouts are in fact not faster than the regular checkout lane. In fact, tests conducted by other groups have reported similar findings.[76] Even an executive of a company that manufacturers self-checkouts acknowledged this fact stating, "if you factor in the wait time and the number of items, self-checkout isn't faster."[77] But if this is the case, then why do so many shoppers think self-checkouts are faster?

(NOT) KEEPING TIME

Research suggests that it may simply be a cognitive error based in misperception and attention. MIT professor Richard Larson, widely considered the world's foremost expert on lines or "queuing," notes, "the psychology of queuing is more important than the statistics of the wait itself," suggesting the way the passage of time is perceived matters more than the actual time itself.[78] For example, research on queuing suggests that time seems to go by faster when people are occupied; this is why some theme parks such as Disneyworld have added short movies and interactive games to the lines of popular attractions.[79] In addition, people tend to overestimate how long they've waited; research on queuing finds that, on average, people overestimate how long they have waited in line by 36 percent.[80]

In fact, research suggests that we aren't very good at estimating time at all, especially when we are looking back at events that have already happened. Psychologists Anthony Chaston and Alan Kingstone recently published research which suggests that the more attention is involved in a particular task, the shorter the estimated amount of time to complete the task is given.[81] According to Chaston, there are two types of time estimation: "prospective estimation," which involves estimating the time required *before* completing a task, and "retrospective estimation," which involves giving an estimate *after* the task has been completed. According to Chaston, we tend to be much better at the former than the latter:

> There's generally a big difference between prospective and retrospective time estimations. In our society, we're pretty good with prospective estimates. Most of us wear watches, and anyway, we're pretty good at keeping track of the time in our minds because we have to, for most of our regular daily lives.[82]

Similarly, in *A Watched Pot*, sociologist Michael Flaherty describes the paradoxical ways in which time can seem to pass slowly in situations buzzing with activity while time passing slowly in the moment may later be remembered as passing more quickly, suggesting that time spent waiting in the checkout line watching the cashier or other shoppers may seem protracted in duration while time spent bagging and scanning groceries in the self-checkout lane may later be remembered as happening more quickly than it actually did.[83] And as cognitive sociologist Evitar Zerubavel notes in his book *The Fine Line*, such experiences and recollections of the passage of time can be further distorted by the arbitrary and inconsistent ways in which we differentiate and partition time and space.[84] For example, what portion of time spent shopping do we actually count as shopping? Do we include the time spent searching and wandering the aisles or webpages in our browsers, or just the time spent waiting in line or transacting purchases with our credit cards? And how have innovations in retail contributed to our perception of time spent shopping in stores?

Invented in 1937 by Sylvan Goldman, owner of the Humpty Dumpty supermarket chain in Oklahoma, shopping carts allowed customers to carry their items with them throughout the store, and later, to their cars in parking lots.[85] Prior to the advent of the self-service store, customers had to provide a list of desired items to a store clerk and wait for them to be packaged or placed on order, meaning that customers spent a consider time waiting for items to be collected, bagged, and in some cases, delivered to their homes. The shopping cart, as well as automobiles and parking lots, completely transformed this process—and significantly reduced costs—by putting shoppers to work pushing carts, collecting items, and carrying their purchases to their cars. By reducing the time spent waiting and making customers active participants in the process, these innovations ostensibly made shopping seem faster by keeping shoppers busy.

Indeed, without clocks, computers, smartphones, and other devices that objectively measure and keep track of time, we'd probably have little idea of how long a trip to the store actually takes. In fact, most Americans would probably be surprised to learn how they actually spend their time. In her bestselling book *Overwhelmed: Work, Love, and Play When No One Has the Time*, Washington Post reporter Brigid Schulte recounts her conversations with time-use scholar John Robinson and her shock at learning how much leisure time working mothers actually have, writing, "[it] felt like I'd been clonged on the head with a frying pan."[86] Yet, as I described in chapter 1, numerous studies of time use suggest that we do in fact spend our time in ways that likely surprise us. For example, the average American spends more hours per day watching TV (2.7) than they do on childcare (.40), exercise (.28), housework (.55), meal preparation (.47), and telephone calls, mail, and email (.15) *combined*.[87] Obviously, these numbers vary when we consider other relevant factors such as age, employment, and sex, but the overall point—and the subtitle of Robinson's book chronicling Americans' use of time—is that the numbers and trends themselves are quite surprising.[88]

Assuming most of us do not live in a Taylorized world of time-and-motion studies like the Gilbreth family in *Cheaper by the Dozen* or routinely keep time diaries, we likely have a biased and inaccurate sense of how much time we spend engaged in various activities that extends all the way to the checkout line. In addition, retailers have added numerous innovations to supermarkets over the past century that have made consumers more mentally and physically active participants in the shopping process, a shift that research on the experience of time suggests is more likely to accelerate or compress shoppers' perception of time.

The addition of self-checkout lanes simply speeds up the experience of shopping even more by transferring more of the tasks previously performed by paid employees onto customers, transforming the checkout lane from a space of relative passivity and waiting into one of activity and exertion. Because self-checkout makes customers an *active* participant—scanning, weighing, calculating, bagging—it occupies the time that would otherwise have been spent waiting. And unless that time is objectively measured, customers are likely to retrospectively perceive that time to have passed more quickly than it actually did, suggesting that customers may be prone to viewing self-checkout as a quicker shopping experience. Or as NCR executive Tracy Flynn states, "people using the self-service line *feel* they are getting out of the store more quickly."[89]

In other words, self-service may appeal to shoppers not because of what it *objectively* offers but because of how it is *subjectively experienced*, leading them into thinking that it is faster than conventional checkout lanes despite empirical evidence indicating otherwise. Shopping in the self-checkout lane may therefore become a sort of self-fulfilling prophecy as customers' false impressions create a real demand for self-service.[90]

STOP MAKING SENSE

This chapter began by offering two contrasting views of the consumer, sovereign and fool, raising the question as to whether Americans were being duped into doing unpaid work or if they were conscious and willing participants. I also raised the question as to how consumers perceived self-checkout lanes; did they perceive them as yet another chore being added to their to-do list, or did they see them as a way to speedup the "second shift" and grocery shopping? Using the lens of social psychology, and the theoretical perspective of symbolic interactionism in particular, I wanted to understand how customers interpreted self-service as well as how such attitudes and meanings shaped their behavior.

Objectively speaking, self-checkout lanes don't make economic sense; they aren't measurably faster, they can't do things human cashiers can do, and consumers don't get cheaper food or wages for using them. In fact, self-checkout lanes don't make much sense for stores, either; they are expensive and require costly maintenance, their use has not reduced labor costs, they incur greater losses through theft than conventional cashier lanes, and their use risks driving away the very customers upon which stores depend. Subjectively, however, self-checkouts offer busy shoppers an escape from waiting in line, making it seem like the second shift is speeding up when it fact it makes it longer. They also provide chains like SuperFood some degree of reassurance that they can offer the same services and technology as their competitors and may in some cases provide managers with more flexibility in staffing the front end of the store.

Instead, the self-checkout trend appears to have been largely driven by self-checkout suppliers (e.g., NCR) and their promoters in retail marketing (e.g., Kioskmarketplace.com), suggesting the real dupes were not consumers but the retail chains who attempted to engineer change in spite of their customers. The companies that make and sell self-checkout lanes raked in more than

$524 million worldwide in 2010, while chains such as Albertsons and Costco are facing the prospect of junking the same technology they spent millions of dollars to install.[91]

Most of the consumers I interviewed were opposed to using the self-checkout lanes, connecting their use to rumors and reports of projected job loss. While stores tried to frame self-service as an "option," some customers felt they were being "force-fed," pointing to the number of cashier lanes open or the placement of the self-checkout lanes. Timing may have also influenced consumers' perceptions, as the wide-scale introduction self-checkout lanes coincided not only with the Great Recession and near-record levels unemployment but also growing trends in automation and outsourcing, offering shoppers a physical embodiment of what critics argued threatened the future of work.

Nevertheless, some customers expressed a clear preference for self-checkout, pointing to the absence of face-to-face interaction, greater personal control, or what they perceived to be a faster method of purchase. However, the fact that younger shoppers appear to have a greater preference for self-service compared to older shoppers shouldn't come as much surprise if one considers the social and physical worlds in which they were raised; one generation grew up before the advent of computers, digital media, and the Internet, the other after. My students, for example, find it puzzling why anyone would ever want to use a drive-thru teller lane at the bank when they point out that they can get cash from an ATM or deposit a check with a smartphone. In fact, many of the things I remember doing when I was their age—shopping for clothes, ordering pizza, buying movie tickets, registering for classes—they now do online through a computer. For a generation of consumers that grew up with computers, digital media, and the Internet in their homes, schools, and libraries, adding it to retail settings, restaurants, and hotels seems obvious if not to be expected.

However, if younger shoppers have been socialized to use and expect self-service technology, older shoppers may find them less familiar and easy to use—and perhaps for good reason. As Paco Underhill points out in his book *Why We Buy*, while older American shoppers are poised to become the largest—and wealthiest—demographic segment of the consumer market, most physical aspects of retail haven't changed, posing significant problems for older shoppers and the businesses that will soon depend upon them:

> All of retailing—stores, restaurants and banks—is going to have to cater to us, because we'll have the numbers and the dollars. But we're going to need a whole new world. This one's not going to work. What's wrong with this world? For starters, all the words are too damn small. . . . You can go through any kind of store and find commercial type that's a challenge for aging eyes to read. . . .

> And size isn't the only optical consideration. The yellowing of the aging cornea means that certain subtle gradations of color will become invisible to a large part of the population. . . . Changing the visual world to accommodate aging eyes will be easy compared to the structural alterations that are going to be required. . . . Doorways, elevators, aisles, cash register areas, restaurant tables, bathrooms, airplanes, trains, buses and private cars will all have to be considerably wider than they are now. Ramps will be required . . . [and] stairs will be relics. Escalators and moving sidewalks will have to be redesigned and in some cases slowed down.[92]

Future visions of retailing aside, Underhill is very astute to point out the extent to which commercial spaces have failed to anticipate the needs of older shoppers, noting "if the gains in economy made by self-serve are to be maintained, lots of machines will have to be redesigned for older hands and vision."[93]

While some shoppers may find self-checkouts difficult to use or impersonal, others may prefer them precisely because they offer respite from the demands and expectations associated with direct, face-to-face interaction. As Barry mentioned earlier, the self-checkout lane offers an escape from the exhausting conversational work he does as a manager "all day long," adding "I don't even shop in my own store anymore," suggesting that at the end of the day service workers like him may in fact prefer less, rather than more, social interaction. In *The Managed Heart*, Arlie Hochschild describes how the manual work of the assembly-line worker that defined the industrial economy of the previous century has today been eclipsed by work that "calls for a capacity to deal with people rather than with things," noting that while fewer than 6 percent of Americans work on assembly lines, roughly a third work in jobs that demand emotional labor.[94] Accordingly, shoppers like Barry that spend their day negotiating the demands of face-to-face interaction may find that less is more when it is their turn to be the customer.

Who Are You Calling a Dupe?

In critiques of the advertising and marketing industries, consumers can be said to appear as "dupes" to the extent to which they are unknowingly subjected to an array of subtle and overt forms of influence. In the case of self-checkout lanes, consumers may be "duped" by the way in which they distort their perception of time, leading them to think they are spending less time in the checkout lane rather than more, offering the impression of a speedup to an American public that feels starved for time. In addition, although the manipulation of consumers' experience of time may be unanticipated or unintended, it operates in a subtle if not wholly unconscious fashion much like the neuromarketing and subliminal advertising techniques described earlier in the chapter. And while customers in Saunders's original self-service store received lower prices in exchange for doing some of the retail work, shoppers today using the self-checkout lane don't receive anything of measurable economic value in exchange for the tasks they perform, suggesting they are dupes for doing unpaid labor.

On the other hand, the comments shoppers made clearly indicate that they are not mindless drones or hypnotized dupes but conscious, calculating, and critical consumers who choose or question the use of self-checkout lanes independent of what managers or marketing ads may suggest. On numerous occasions shoppers made explicit reference to choices (e.g., *"People like having a choice"*), convenience (e.g., *"It's so convenient – you're in and you're out"*), costs (e.g., "*It's all about cost savings,* [having] *to pay for less staff"*), jobs (e.g., *"That's takin' their jobs"*), work (e.g., "[They] *don't have to hire people if we do the work for 'em"*), money (e.g., "[If] *I'm paying money, I shouldn't have to pay and bag myself"*), service (e.g., *"It's worse service – it's taking away service is how I see it"*), speed (e.g., *"Anything that helps me checkout faster"*), and time (e.g., *"It it's faster than waiting in line"*), providing vocabularies of motive rich with meanings, moral judgments, rationales, and social values. Moreover, this consciousness translated into active forms of resistance ranging from individual boycotts to community-wide efforts that caused the stores to either relocate or completely remove the self-checkout lanes from stores, further highlighting the agency and power of consumers.

In fact, I would argue that perhaps it is the retail chains themselves that are have been duped. Instead of reducing theft as advertised by their suppliers, self-checkout lanes have contributed to the theft of billions of dollars of merchandise. While some of these costs may be passed on to consumers, ultimately stores must absorb some of these losses in an industry where the profit margin can be as little as less than one percent. And with Amazon planning to compete with Walmart for control over the retail food industry, chains like SuperFood have very little margin for error.

It is also important to note the degree to which consumers have imposed their will on supermarket chains at a considerable cost. Installing the lanes, training staff, and contracting services for the machines involved sizeable investments that stores hoped would yield savings over time; the unexpected removal of the self-checkout lanes by half a dozen retailers means that chains may have wasted as much as a quarter of a million dollars per store. For smaller, regional chains like Big Y that sort of mistake could be fatal. With seventy-seven locations in Connecticut and Massachusetts, in 2015 Big Y reported an annual revenue of $1.7 billion—just a fraction of what it could cost to remove self-checkout lanes from all of its stores.[95]

And if stores thought that self-checkout lanes would lower labor costs, they were duped because the number of cashiers has only continued to grow. In fact, according to the Bureau of Labor Statistics, there are actually *more* grocery store cashiers in America now (916,540 as of 2017) than there were a decade ago (839,810 in 2007), and when we control for population growth, that is, divide the number of cashiers by the total U.S. population, we see that the number of cashiers per capita has not declined but in fact remained fairly stable (see Table 4.3 on p.111).

THE FUTURE OF RETAIL

As I have demonstrated above, predicting the future of retail more is a lot more complicated that many of us initially thought. Economic projections and occupational forecasts are subject to all sorts of social and political contingencies ranging from economic competition, consumer demand, and technological innovation to trade policy, government subsidies, and the cost of energy. Whether or not consumers retain their sovereignty over supermarkets, however, largely depends on how competitive the retail food industry remains. If the industry becomes a monopoly, stores could effectively force a self-service transformation in retail; after all, most Americans depend on grocery stores for their food, and dependence is a measure of power. While the supermarket industry is still competitive, a recent process of consolidation in the form of acquisitions and mergers may make it less so in the future. In 2013, a private investment firm bought five chains including Albertsons, while Kroger purchased Harris Teeter in 2013 for $2.4 billion.[96] Meanwhile, the Great Atlantic & Pacific Tea Company—better known as A&P—declared bankruptcy in 2015, taking itself and the recently acquired rival Pathmark chain out of the competition, while in the same year Dutch grocer Ahold purchased Belgian rival Delhaize for $28 billion, bringing together four East Coast chains including Stop & Shop, Giant, and Food Lion.[97] And as I write, Amazon has announced plans to purchase Whole Foods for nearly $14 billion, raising the question as to whether the industry will become less competitive.[98] I guess we will have to wait to wait and see.

NOTES

1. In his book *Consumer Culture & Modernity* (1997), Don Slater uses a similar series of dualities to describe the consumer in modern thought (see pgs. 33–34). For those seeking a more comprehensive review of the literature on consumption and consumer culture, see P. J. Rey and George Ritzer, "The Sociology of Consumption,"

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Chapter 6

The Overworked Consumer

As we learned in chapter 1 ("Self-Service and the Do-It-Yourself Economy"), the self-service trend has spread into nearly every service industry, rapidly expanding out of fast food and retail into banking (e.g., ATMs), education (e.g., MOOCs), entertainment (e.g., self-ticketing kiosks), health care (e.g., WebMD), hospitality (e.g., Airbnb), human resources (e.g., Workday), and transportation (e.g., Uber) just to name a few. However, while the practice of self-service is over a century old, what has allowing it to expand so dramatically and rapidly are recent innovations in computers and automation in the form of kiosks, self-checkout lanes, and Internet websites that invite consumers to "do-it-yourself."

If we can describe the recent expansion of self-service as an "evolution," then it is also important to note that the practice did not emerge from a social vacuum. Instead, as we learned in chapter 2 ("Putting Customers to Work"), self-service was implemented in the health care, restaurant, and retail industries consciously and deliberately in order to reduce costs. In the case of restaurants and retail, self-service was used to transfer paid work onto unpaid consumers, allowing stores to streamline labor costs and lower prices, while in health care self-service emerged as a response to rising health care costs. Yet, while self-service successfully helped these industries to lower their costs, they also effectively decommodified paid labor, reorganizing what were previously paid jobs into unpaid tasks which in turn were presented to the consumers as a convenience rather than a chore much the same way neoliberal policies today promote shifting more of the burden of education, health care, and retirement onto consumers using rhetoric of individual choice and freedom.

(NOT) THE END OF WORK?

This potential dislocation of paid work is precisely what has prompted a moral panic over technology that can be traced all the way back to the nineteenth century when Luddites destroyed textile mills as a form of social protest. In terms of recent American history, however, these anxieties can be traced back to the early to mid-twentieth century, when the public became embroiled in what later became referred to as the "great automation debate." Yet, while the resulting Presidential commission concluded that technology eliminate jobs, but not work," recent advances in automation and self-service technology have led to a resurgence of fears of technological unemployment and "the end of work," with bestselling books and academic articles predicting a jobless future for millions of Americans.

In chapter 3 ("Supermarkets, Self-Checkout Lanes, and Self-Service"), I argued that the best place for us to examine these predictions was the supermarket industry, which over the past decade and a half had introduced approximately a quarter of a million self-checkout lanes into tens of thousands of stores across the U.S. supermarkets, I pointed out, had strong incentives to automate labor; unlike banks and fast-food restaurants that were installing similar technologies, many supermarket chains employed unionized workers, exposing them to increasing pressure from nonunion competitors such as Walmart that were able to use lower labor costs to pass along lower prices to customers. Moreover, supermarkets employed more cashiers than similar industries that were also introducing self-checkout (e.g., fast food), and with cashiers comprising a third of all supermarket employees, any possible effect on the number of jobs would be quite visible. In addition, I noted that while self-service technology was expanding rapidly into other industries, supermarkets were the place where American consumers were mostly likely to encounter self-service technology and on a recurring basis.

Yet, as we learned in chapter 4 ("Why Are There Still So Many Jobs?"), the rapid, industry-wide implementation of self-checkout lanes did not result in a decline in the employment of cashiers, nor did it stem rising labor costs; in fact, the number of cashiers has continued to steadily grow. In fact, many of the jobs that experts predicted were going to be displaced by automation and self-service (e.g., travel agents, bank tellers) have only continued to increase. As economist and automation expert David Autor asked, "Why are there still so many jobs?"[1]

THE IRRATIONALITY OF McDONALDIZATION AND PROSUMER CAPITALISM

Drawing on Ritzer's McDonaldization thesis, I found that rather than rationalizing the labor process, the implementation of self-checkout lanes had resulted in a series of "irrational" outcomes that thwarted and undermined their use as labor-saving devices. In fact, we learned that supermarkets had already become so McDonaldized that self-checkouts were in fact a symptom rather than a cause of employment problems; stores had rationalized jobs—or McJobs—to such an extent that stores were struggling to hire and retain workers in the midst of the greatest economic recession in nearly a century. We also learned that self-checkout lanes were an easy mark for shoplifters, as "swipers" and "walkoffs" walked off with billions of dollars of unpaid merchandise. In addition, by staffing self-checkout lanes in order to deter theft, stores not only limited their ability to reduce labor costs but risked transforming the checkout process into a dehumanizing, prison-like experience for customers and employees alike. While critics often portray computers as autonomous job-killing robots, we also learned that self-checkouts are hardly frictionless or self-reliant; like their ancestor the Keedoozle ("Key-does-all"), self-checkout lanes are prone to mechanical breakdowns and computer errors. Therefore, even if self-checkout lanes reduced stores' demand for low-skilled, low-wage labor, they increased their reliance on high-skilled, expensive labor in the form of a 24/7 technical service contract. And even if stores wanted to eliminate jobs, they were trapped in an iron cage of bureaucracy in the form of a collective bargaining agreement that expressly prohibited the substitution of employees with machines; in 2003, supermarket chains in California had attempted to break loose from a similar arrangement they had perceived as too costly, only to lose $2 billion as a result.

Yet, perhaps the biggest factor was stores themselves who actively limited the use of self-checkout, fearing that it would drive their loyal customers into the arms of their competitors as it had when Home Depot had tried replacing cashiers with self-checkout lanes just a few years earlier. Closely monitoring the volume of sales transactions going through self-checkout, stores were reluctant to risk fully automating in crowded market in which competitors sold largely the same goods, counting on high sales volume to offset loss leading products and razor thin profits. In fact, it would have been "irrational" for stores like SuperFood to automate because what largely separated chains was the form of service; with stores selling the same produce and merchandise, what set apart chains was price and service. Unable to compete with low-wage big box competitors such as Walmart, SuperFood and other chains sought to differentiate themselves through service. In fact, concerns over customer service is what ultimately prompted six major retail chains to begin removing self-checkout from their stores, suggesting self-checkout itself may be checking out.

Yet, even if we assumed that stores could displace workers without alienating customers, and solve the problems of theft, labor contracts, and maintenance, it would still seem quite "irrational" to so since supermarkets and similar businesses in retail and fast food heavily rely on mass consumption by low-wage workers. Eliminating cashiers and clerks from fast-food restaurants, retail stores, and supermarkets would effectively destroy a recurring source of sales, and as I pointed out in chapter 2, the loss of these sales could not be offset by increased consumption by the wealthy. Even though we like to increasingly think of the United States as a "postindustrial" or information economy, service industries such as entertainment, fast food, hotels, and retail still rely on mass consumption and economies of scale. In fact, that is the only reason those businesses are able to offer such low prices, relying on high sales volume to counterbalance low profit margins. Therefore, while many fast-food chains continue to resist raising the minimum wage to $15, they might want to take a page out of Henry Ford's playbook and consider raising workers' wages, especially since research suggests those workers are likely to spend it right back into those same businesses.[2]

Equally "irrational," if not puzzling, is the recurring moral panic over automation, with economic experts playing the role of moral entrepreneurs arousing public fears of mass unemployment through the media in the form of books and articles predicting "the end of work." If anyone should know that technology can eliminate jobs but not work it is students of economics who learn the "lump of labor fallacy," or false assumption that there is a fixed amount of work. Of course, there may be short term disruptions as certain jobs or occupations are eliminated in the process of creative destruction, but to paraphrase the gospel of Matthew, work will always be with us. The economic history I briefly summarized in chapter 2 provides ample evidence of this, but generally speaking there simply is no credible evidence that technology eliminates work. If anything, it creates a demand for *new forms* of work, evidenced by the new occupational categories and titles the Bureau of Labor statistics has had to add to their standard occupational classification system over the past several decades. Moreover, these new forms of work tend to be more skilled, meaning they are also better paying forms of work. If the writers peddling panic over automation are right about anything it is that we will need a more educated workforce to fill these jobs and the future ones that have not yet been created.

While self-service technology may not be eliminating jobs, it does represent a creeping form of "shadow work" and may explain why Americans feel overworked despite having more free time than in previous decades. As I pointed out in chapter 2, even if the average American spends just a fraction of their leisure time engaging in self-service, it still adds up to a considerable chunk of time spent performing various forms of unpaid work. Time use data indicate that the average American spends approximately one and a half hours per day eating, shopping, taking care of household members, and answering phone calls and email; even if only 10 percent of this time is spent in self-service, it still adds up to two hours of unpaid work per week—and that's in addition to the 13.5 hours of housework the average American performs each week.[3] Together, that adds up to an average of just under 16 hours a week of unpaid work. Meanwhile, Americans continue to work longer hours than almost any other developed nation while receiving fewer days of paid vacation. This may explain why so many Americans report feeling overworked despite employment statistics that indicate working hours have remained fairly unchanged in recent years. In short, Americans aren't just overworked from *paid* work but also *unpaid* work that includes domestic work, and increasingly, self-service.

Meanwhile, ATMs, self-checkout lanes, self-ordering kiosks, and travel websites invite Americans to "pitch in" to the work of a jobless recovery, as increases in productivity are increasingly funneled to the top 1 percent. Like the husbands Arlie Hochschild interviewed in her book *The Second Shift*, employers simply seem unwilling to budge, preferring instead to come up with excuses to explain increasing automation and self-service instead of raising wages despite reporting record earnings and profits. If the ethos of self-service is "do-it-yourself," American consumers have been doing it themselves, if not over doing it, in recent years, supporting an economy that is dangerously overly dependent on consumer debt and spending. In fact, nearly a quarter of Americans have zero savings, while consumer debt recently exceeded the peak reached during the Great Recession, suggesting the average American is indeed "overspent."[4]

CONSUMERS: DUPES OR SOVEREIGNS?

Does this mean that American consumers that use self-service are economic dupes? I don't think so. Unlike critics of self-service such as Craig Lambert who seek to make consumers aware of the shadow work of self-service, I found consumers to be conscientious, if not wholly critical of self-service, as many of SuperFood's customers responded with complaints or resistance to the introduction of self-checkout lanes. If anyone was duped it was SuperFood and the chains that adopted expensive technology against their customers' preferences, costing retail chains millions to install technology that some chains are now in fact removing at what must be a considerable price.

I hesitate, however, to be too hard on retailers because, perhaps ironically, they were subjected to the same sorts of media campaigns and advertising that we typically see directed toward consumers. Self-checkout suppliers and retail marketing firms trumpeted the growing adoption of the technology suggesting it was indicative of an industry trend, while promising "solutions" to retailers' problems in the form labor costs, security, and customer service.

Yet, as I have documented, self-checkout has measurably failed to deliver on any of these promises.

What about consumers? While most of the customers I interviewed expressed a preference for the human operated cashier lane, a significant number did prefer using the self-checkout. This seemed puzzling for a number of reasons. First, unlike Saunders's original self-service store, customers using self-checkout didn't receive lower prices on goods, meaning there was little economic incentive for them to do so. Perhaps self-checkout appealed to these shoppers because it promised a faster checkout and greater convenience; yet, as I demonstrated in chapters 4 and 5, self-checkout was not only slower than the cashier lane but frequently required assistance from store employees, making it less convenient.

But if we switch our perspective from an economic lens to a sociopsychological one, what initially seems "irrational" begins to make sense. First, younger shoppers are growing up in a world that is increasingly populated with computers, suggesting that preferences for self-service may be a product of socialization; this also explains the age-group differences in preferences for self-service technology in in retail surveys. Yet, another reason shoppers may prefer using self-checkout is precisely because for some Americans interacting with a person feels like work; because service work frequently involves emotional labor, those performing these types of jobs may welcome an escape from face-to-face interaction.

In fact, the only way consumers may be considered "duped" by self-checkout lanes is the way in which they distort the experience of time. Similar to the way in which Ritzer described casinos, theme parks, and other "cathedrals of consumption," self-checkout lanes can be said to "enchant" consumers in that they keep them occupied, making time seem to go by faster than it would be if they were unoccupied waiting in line. In this regard, even if self-checkout lanes are not objectively faster than regular cashier-operated lanes, they create an illusory experience of speed.

Do self-checkout lanes control and exploit consumers as Ritzer suggests? Perhaps, though exploitation is a difficult case to argue precisely because of the dubious connotations with the Marx's labor theory of value. Self-checkout does involve "putting customers to work" but by consent rather than coercion. As the managers emphasized, customers can choose to not use self-service, and in a competitive industry such as retail, stores would be foolish to transform themselves into workhouses; just look at what happened with Home Depot. However, one could argue that self-checkout is exploitative in that it fails to deliver what it promises to customers while relying on their unpaid work which is appropriated by store. And again, unlike Saunders's self-service stores, customers do not receive money or lower prices for their work.

In terms of control, however, I think he is on stronger ground, at least in the case of self-checkout lanes. These machines control both the labor process and the pace of work, taking the ordering of tasks and decision-making out of the hands of the consumer. In this respect, they both look and act much like miniature assembly lines, controlling both the pace and process of the sales transaction. Perhaps this is why so many customers walk off like the absentee workers in Ford's factory, frustrated over the loss of control on the shop floor.

This is an interesting connection because it suggests that unionization and market competition may be used to effectively combat attempts to forcefully institute self-service. Until the U.S. retail food industry is monopolized, American consumers will be free to shop in stores that continue to provide service, and with more than 200 chains and 38,000 stores nationwide, consumers have a lot of choices.[5]

However, over the past several years there has been a significant increase in the number of mergers and acquisitions. Kroger, which recently acquired Harris Teeter, is the third largest retailer in the world and the second largest employer in the United States, while the merger of international retail conglomerates Ahold and Delhaize effectively placed three of the largest supermarkets chains on the East Coast under one corporate umbrella.[6] And Walmart continues to be the proverbial 800-pound gorilla, driving industry trends through its dominance over the retail market. If this process of market consolidation continues, the retail food industry could quickly become like the airline or telecommunications industry, instituting certain practices in spite of American consumers. The U.S. airline industry, as Bill described, has been able to institute self-service to such a degree, in part, because there is such relatively little competition; since 2001, ten airlines industries have merged into just four, while high costs pose barriers to entry from would-be competitors.[7] Meanwhile, the cable and telecommunications industry continues to defiantly lobby Congress opposing legislation a majority of Americans consumers support (i.e., net neutrality), able to do so, in part, because more than half of Americans have only one choice of provider for broadband internet.[8]

A TALE OF TWO GROCERS

For a glimpse of what might be the future of the retail food industry, perhaps we should revisit the year 2013 and re-examine what Charles Dickens might have characterized as A Tale of Two Grocers.[9] It was the best of times for Fairway, a small, humble New York-based supermarket chain that promoted itself as "like no other market," by offering a wide array of products and produce to an urban population starved for stores that could combine freshness and variety with the comprehensiveness of one-stop shopping.[10] Many of the stores were tightly packed into old nineteenth-century buildings, but the customers didn't mind because they loved their low prices and the unusual assortment of goods. Even though the chain was relatively modest in size with only a dozen stores, it was conspicuously large in its charity, giving away thousands of Thanksgiving turkeys for free to those in need and supporting several nonprofit charities.[11] In fact, they were so popular that in 2007 a private equity firm decided to buy a controlling share and invest more than $100 million to expand the chain, creating thousands of jobs in the Greater New York area and bringing the Fairway experience to more American shoppers.[12] When the company finally went public in 2013, shares in the company rose by a third, suggesting Fairway was finally going to be able to make its mark in the retail food industry, a storybook ending for a plucky underdog chain.[13]

It was the worst of times, however, for the British retail giant Tesco, which was in the process of closing down all two hundred of its Fresh & Easy store locations in California, Nevada, and Arizona. The company had smartly sent its CEO and several executives to live with American families in order to familiarize themselves with how Americans shop and eat, carefully noting the importance given to low prices, convenience, and an assortment of prepared foods. What Fresh & Easy overlooked, however, was the American culture of shopping, and in particular personal service, offering only self-checkout lanes in their stores. Their annual profits dropped over 90 percent, and in 2015 Fresh & Easy filed for bankruptcy for the second time in two years.[14]

While Fairway also later struggled financially—the chain filed for chapter 11 bankruptcy in 2016 in order to reorganize its business—I would argue that it has been a relative success compared to Fresh & Easy.[15] Fairway currently operates more than a dozen stores in the New York tristate area and continues to receive rave reviews and awards from consumer and retail organizations. A similar chain in Northeast Ohio, Heinen's, has foregone the self-checkout trend, opting instead to offer more personal service as it has expanded from the suburbs into downtown Cleveland. Similar to what Freshway did by reviving existing old buildings, the owners, Jeff and Tom Heinen, invested $10 million into a former landmark building to insert a 27,000 square foot full-service grocery store, revitalizing the downtown neighborhood by creating hundreds of jobs and bringing quality food to what had previously been a food desert.[16]

THROUGH THE LOOKING-GLASS: THE MEANING OF "SERVICE"

The nature of the relationship between American businesses and customers can be described by the popular adage, "the customer is always right." Although the precise origins of the expression are debated—some trace it to Marshall Field, while others attribute it to Gordon Selfridge, who had worked under Field for a period of time—the underlying notion of consumer sovereignty is clear. The expectation is that businesses will be, at some level, accommodating and deferential to customers. This is especially the case in competitive industries, as well as those that depend upon repeat purchases or provide personal service. Yet, businesses had not always adopted a customer-first approach. Until courts established laws regarding product liability and warranties, the dominant ethic of shopping was *caveat emptor*, or "buyer beware."

Today, businesses in more than a dozen industries are experimenting with self-service, raising important questions about the nature of our economy as well as the role of the consumer, as the notion that "the customer is always right" is slowly being supplanted by a notion that customers can (and perhaps should) "do-it-yourself," an idea that fits well alongside American virtues of rugged individualism and self-reliance. And for businesses that have exhausted reduction in costs through outsourcing, downsizing, and employing unpaid interns, immigrants, temps, and part-time workers, the unpaid work of consumers represents a new frontier of even cheaper labor. For customers, however, it poses a question about what it means to be a consumer, as well as the broader meaning of service. Historically, "service" for Americans meant having someone else perform a job for you; the value of service was associated with the degree to which employees exerted themselves to please the customer. Self-service, however, flips the very notion of service on its head, beckoning the customer to do more of the work for less. Whether this is better or worse state of affairs depends upon the proverbial eye of the beholder; what appears to one individual to be a convenience may appear to another an onerous chore.

In Lewis Carroll's *Through the Looking-Glass*, Alice tells Humpty Dumpty that he is "exactly like an egg," to which he takes offense, prompting Alice to clarify that he *looks* like an egg, prompting a discussion of semantics and pragmatism:

> "I don't know what you mean by 'glory,'" Alice said.
>
> Humpty Dumpty smiled contemptuously. "Of course you don't—till I tell you. I meant 'there's a nice knock-down argument for you!'"
>
> "But 'glory' doesn't mean 'a nice knock-down argument'," Alice objected.
>
> "When I use a word," Humpty Dumpty said, in rather a scornful tone, "it means just what I choose it to mean—neither more nor less."
>
> "The question is," said Alice, "whether you *can* make words mean so many different things."
>
> "The question is," said Humpty Dumpty, "which is to be master—that's all."[17]

The question raised by Humpty Dumpty is essentially this: are we to master language or is language to master us? Alice argues that words have specific meanings, implying that changing or expanding the meaning of a given word risks distorting the very meaning, much like the phrase "enhanced interrogation" distorts the meaning of what is torture, while Humpty Dumpty argues that we should use words to accomplish our aims, suggesting language is simply a means to end. In the context of self-service, this raises an important and serious question for American consumers: Should "service" have unambiguous meanings or interpretations, or should it mean whatever businesses decide they want it to mean? *Caveat emptor*.

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