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# Making data mining a natural part of life: Physical retailing, customer surveillance and the 21st century social imaginary

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## Abstract

This article examines corporate struggles to reorganize retail environments around the data capturing and processing affordances of digital media. We argue that ongoing transformations in digital retailing reflect and extend the rise of social discrimination around what might be called 'the quantified individual'. By quantified individual, we mean the hyperfocus on the qualities of the individual person rather than on even the communities or segments relating to people. Drawing on the writings of Charles Taylor, Antonio Gramsci, and Peter Berger and Thomas Luckmann, we use the ongoing corporate refashioning of the general meaning of 'loyalty' via the discourses and technologies of retailing as an important example of how a new social imaginary takes form and instantiates social discrimination as normal. For consumers, mobile apps and social-media profiles become venues for performing loyalty and accumulating rewards. For retailers and marketers, digitalized storefronts become like factories for generating data about where individuals go, what they buy and how firms define them. The process is transforming the architecture of physical and digital retailing, and the relationship between the two, in ways that make the selling environment increasingly dynamic and mutable for the individual prospect. We argue that shorn from their 20th century role in the democratization of pricing, stores will become centers of discrimination-related stress as dueling shopper and retailer technologies reach sometimes diverging conclusions about how to encourage loyalty, whom to reward for loyalty, and how.

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Debates about the propriety of various forms of data mining and predictive analytics are sweeping through many societies. It is not difficult to find governmental hearings and papers, advocacy-organization reports, academic meetings and popular press pieces that worry about the implications for private life and democracy of allowing business interests and/or government agencies to track citizens. When it comes to government, the focus of concern tends to be police/security services, such as the National Security Agency (NSA). Worries on the business side tend to center on marketing, especially the pinpoint-targeting practices of some advertisers. Controversies are fierce, stakeholder tensions run high, and data mining moves ahead under scrutiny from all sides.

This article argues that while debate swirls around these important activities, another key domain – physical retailing – is creating few ripples of anger despite its central role in implementing data mining and predictive analytics. The retail shopping aisle has, in fact, received almost no attention even among academics who focus on the social implications of consumer surveillance. This neglect is unfortunate because the physical store is becoming a crucial venue for data transfer. Knowingly and unknowingly, people are circulating information about themselves to merchants via social, mobile, and location-aware media. That is because 21st-century merchants, threatened by new competitive pressures, consider consumer tracking, tagging, and tailored communication to be strategic imperatives in brick-and-mortar stores as well as online and on mobile. Sellers believe the right data about the right customers at the right time are required assets for their businesses, online and off. Their actions go beyond traditional classifications of people based on their association with a small set of demographic categories or lifestyle segments. Rather, the work reflects MIT scientist Alex Pentland's description of big-data mining as gathering 'the little data breadcrumbs that you leave behind you as you move around the world' (Edge, 2014). Retailers and their consultants then often use predictive analytics to crunch the multitudinous bits regarding persons and forecast their behaviors.

These data-centered activities are restructuring the architecture of physical and digital retailing, and the relationship between the two, in ways that make the physical selling environment increasingly personalized for the individual prospect. As they try to cope with this challenging environment, stores are turning information gathering into a taken-for-granted aspect of their customers' everyday lives. In the process, activities that dismay privacy and anti-discrimination advocates are becoming cultural routines. These dynamics are constructing a 'social imaginary' that may well make many controversies about databases and analytics in government and other elite circles moot.

## Shopping and the social imaginary

Social philosopher Charles Taylor (2002) drew on the term social imaginary to describe the public's often implicit or tacit understanding of how the world works and what is

normal. His perspective has been influential for those looking for ways to show how elite perspectives on the world end up becoming instantiated in the activities of everyday life (see, for example, Kelty, 2005; Mansell, 2012; Poovey, 2002). Crucial to his framework is an insistence that social imaginaries, not theories, most directly create the institutions of modernity. Theories, he states, are 'set[s] of "ideas"' that circulate among elites and so may have little to do with what actually gets done on the ground (Taylor, 2002: 91). By contrast, the social imaginary is about visions of reality as they take root on the ground. It is 'about the way ordinary people imagine their social surroundings, which is often not expressed in theoretical terms but is, instead, carried in images, stories, legends, and so on' (Taylor, 2007: 119). He adds that a 'social imaginary is the common understanding that makes possible common practices and a widely shared sense of legitimacy' about those practices (p. 119). It

> also incorporates some sense of how we all fit together in carrying out the common practice. This understanding is both factual and normative; that is, we have a sense of how things usually go, but this is interwoven with an idea of how they ought to go, of what missteps would invalidate the practice. (Taylor, 2002: 106)

While 'social imaginary' is a felicitous term, Taylor's handling of it is not fully adequate to explain the dynamics of how elite ideas and technologies filter into the ordinary expectations of life. Taylor is quite aware that elite ideas about the world reverberate with conceptions of hierarchy and other models of power. Yet, his focus is on how regular people turn these ideas into daily habits. Although the richness of his concerns with on-the-ground dynamics of cultural assimilation is insightful, he does not consider the possibility of a 'top-down' etiology of the social imaginary: that elite actors (in the retail industry, for example) might try to cultivate lifestyles and routines among 'ordinary' individuals that privilege theories benefitting institutional elites and that then develop an indigenous richness.

To understand the social mechanisms and power relations that create and reinforce the social imaginary as a taken-for-granted reality, it is useful to combine Peter Berger and Thomas Luckmann's discussion of the ways individuals assimilate values with Antonio Gramsci's (2000) notion of *hegemony* and *common sense* (pp. 331–343). For Berger and Luckmann (1966), institutions constitute human interactions relating to key areas of social life. Think of education, military, law, healthcare, business and shopping. They point out that 'Institutions … by the very fact of their existence, control human conduct by setting up predefined patterns of conduct, which channel it in one direction as against the many other directions that would theoretically be possible' (Berger and Luckmann, 1966: 55). They also assert that 'institutions always have a history, of which they are products. It is impossible to understand an institution adequately without an understanding of the historical process in which it was produced'. Furthermore, they note, 'the institutional world requires legitimization, that is, ways by which it can be "explained" and justified'. These, in turn, require 'the development of specific mechanisms of social control …' (Berger and Luckmann, 1966: 62–63).

Antonio Gramsci sheds a more direct light than do Berger and Luckmann on the particular vectors of institutional legitimation. Gramsci saw capitalism as practiced

jointly through the business class and the state as the fundamental driver of social control. Rather than maintain power primarily through violence, elites in modern societies use educational forums and media technologies to spread their beliefs in attempts to encourage their adoption as obvious (common sense) values for non-elites as well. The common-sense perspectives are not necessarily homogenous or internally consistent, but they do lead people to fit themselves into the dominant ideology. In Berger and Luckmann's terms, capitalist elites legitimate institutional relationships that benefit them though cradle-to-grave valorizations of predefined patterns of conduct as the best and most logical directions for the society. Political economist Edward Comor (2008) quite clearly links Gramsci with Berger and Luckmann when he writes that '[h]egemonic rule involves the socialization of people through the institutions of everyday life' (p. 42; see also p. 24). We would add Taylor's social imaginary to this complex mix. While the idea of common sense comes close to that of the social imaginary, the latter has more nuance regarding the routines of everyday life. Taylor's approach reflects a need to capture the on-the-ground subtleties of ordinary people that Comor gestures toward in pairing scholars who stress society-wide interactions with a thinker whose interests are top-down.

## The historical context of retail relationships

Taken together, these approaches suggest the need for an in-depth understanding of the retailing industry's particular strategies for organizing and naturalizing information gathering about customers and would-be customers in the early 21st century. The developments must be understood in terms of continuity and change regarding customer-related routines the industry cultivated and shoppers adopted as natural across decades. Key developments involved posted pricing, customer assessment, and loyalty programs as retailing norms. Posted pricing emerged widely in the mid-19th century concurrent with the rise of department stores; one reason was that store owners didn't trust their clerks to bargain properly. In turn, the fierce competition that sometimes resulted from 'democratized' pricing led merchants to find ways to encourage loyalty. One way they found to do that in the late 19th century involved extending credit. While they first did it for their wealthiest patrons, by 1910 virtually all large retailers were promoting these 'charge' programs to a broader segment of their customers because of the benefits it brought to the establishment (Leach, 1994: 124). Historian William Leach (1994) reports that 'charge account customers were preferable to other kinds of customers' as they tended to buy impulsively and in larger quantities; furthermore, merchants believed these customers exhibited more loyalty to a store (p. 124).[1] Of course, making these offers meant the stores had to profile the customers to ensure they would pay their bills. Once the merchants were confident, the logic of social relationships came into play in the search for patrons who would reliably satisfy their debts. In 1904, for example, a middle-scale department store in Philadelphia called Lit Brothers solicited charge card account holders to recommend up to three friends and acquaintances worthy of 'the privilege' of opening a charge account (Leach, 1994: 124).

Routinized loyalty programs were the logical extension of these activities. Some store managements, particularly at the high end, rejected the need for reinforcing customers

through points or gifts; they preferred to believe that customers came and returned because of great service. They turned their publicity machines onto actual and apocryphal tales of remarkable customer service by their managers. The broader market, however, seemed to prefer a more systematic approach to the problem. Through the first half of the century, merchants, their consultants and academics emphasized the scientific role data about population segments and their habits could play in decisions about where to place stores, what goods to carry and how to structure aisles to maximize various forms of traffic. Their broad demographic approaches both reflected and shaped the ways merchants thought of loyalty: as relatively high amounts of repetitive spending by faceless customers that could be encouraged by easy access and easy-to-get incentives. An even broader tack to engender loyalty was stores' use of Sperry & Hutchinson's Green Stamps or stamps of its competitors (Strasser, 1989). Customers received the stamps based on their spending at checkout counters of various merchants and licked them onto collection booklets. They then exchanged the booklets at storefront redemption centers for toasters, furniture and a variety of other items.

Over the decades, though, merchants saw the non-exclusive nature of these programs as their Achilles heel; two supermarket chains in the same area might well offer the same stamps, thereby watering down the incentive. By the 1980s, stamp programs were in decline and loyalty in retailing seemed adrift. Department stores tried to use branded charge cards as ways to encourage loyalty and learn about their customers' purchases. Yet, the rise of the Internet beginning in the mid-1990s brought challenges that made figuring out a new way of thinking about customers and loyalty a matter of survival.

## The great data transition

The period from the mid-1980s through the 2010s represents a period of transition from seeing customers through a broad demographic lens to monitoring them as individuals who give off streams of data, often in real time. Two developments especially influenced their activities. The first was American Airlines' introduction of the first frequent flyer program in 1981. The program took loyalty metrics and rewards far beyond the stamp activities of earlier decades. It relied on the rise of computers in US business and American Airlines' central position in that development. Feeling the pressure of the 1978 government deregulation of pricing and routes in their industry, American Airlines executives realized they sat on a goldmine of information through the company's Sabre computer reservation system. They decided to use Sabre to find 150,000 of their best customers and set up a regime that would reward them with flights, upgrades, and (eventually) rental cars as well as hotel stays depending on miles traveled. This complex frequent flyer system called for sophisticated computer technologies that could keep tabs on traveler activities: database software, customer-tracking software, data storage and the distribution of terminals across airports and travel agencies.

The second signal development was the introduction of the popular World Wide Web browsers Mosaic and Netscape in the mid-1990s. They ignited a commercial rush to the Internet (see Schiller, 2001: 94–97). The creation of the tracking cookie around that time allowed online merchants to track and store what visitors were doing on their

sites and even elsewhere on the web. It did not take long for companies to realize that they could borrow from actuarial science to use predictive analytics in the service of selling. Amazon became most noteworthy for using data-gathering and collaborative filtering techniques to provide personal shopping suggestions to visitors based on their previous activities. Google's rise as an advertising powerhouse also influenced the trade. Gathering enormous amounts of information about the millions of people who visited its site and/or those of its affiliates every day, the firm determined the probability that a particular individual would find a particular ad or offer interesting and then served up that offer.

The new competition represented a tiny part of the retail business – less than 10 percent of the retail dollar even by 2007. The growth was substantial, though. Moreover, the sales of music and books online helped to decimate brick-and-mortar record and book stores. Also, the spread of broadband and the rise of Internet purchases by shoppers comparing prices in store (a phenomenon called 'showrooming') ratcheted up fears in even the largest brick-and-mortar retailers that virtual shopping would fundamentally disrupt their customer relationships and business models. They perceived that long-term survival meant they needed on-the-ground, customer-friendly takes on ways to implement into stores elite ideas about the tracking potential of new technologies and the actuarial potential of the data collected.

In addition to migrating to the digital world themselves, brick-and-mortar retailers have determined to bring technologies to their physical stores that would inculcate a new, personalized version of loyalty (Clifford, 2010). What they have in mind is a loyalty-and-analytics combination of airlines loyalty programs with the sophisticated search offerings of the Amazons and Googles of the virtual world. The trick is to find ways to integrate data mining and surveillance into their selling floors. One need is to take into account flyers' relatively constrained choice of airlines compared to shoppers' much broader choice of supermarkets, department stores and big-box outlets. Another requirement is to mimic websites' ability to follow people around and tailor offers for them in order to reward desirable customers with deals that will keep them coming back.

## Reshaping the social imaginary

Merchants' activities to reshape their customers' common-sense understandings of the retail environment very much reflect Charles Taylor's description of the social 'actors' who work to create a social imaginary with a Gramscian/Berger-and-Luckmann twist. Although Taylor doesn't focus on organizational elites in his definition of 'actors', inserting those players into his narrative turns it into a quite helpful roadmap of institutional legitimation. Taylor explains that a social imaginary emerges from actors who have 'a sense of themselves as forming a collective agent, capable of acting together'. Over the 30 years, too, various elements of the retail industry fit the profile of what Taylor (2009) calls an 'ensemble of actors' that knows 'what to do', and develops 'agreed practices in its repertory that put the new order into effect' (p. 200).

The point applies precisely to consultancies and technology firms in the retail institution. They claim to help retailers turn new ideas about shoppers and selling into practice

through a path of customer identity management (CIM). More specific than customer relationship management (CRM), CIM cultivates the need to shepherd a shopper's data in ways that both secure it and exploit it. IBM's 'Initiate Master Data Service' glossary reflects the critical value consultancies and their clients place on this approach. It defines 'enterprise customer identity management' as 'The process of identifying all of the information for a customer (member data) throughout the enterprise, linking it together for a 360-degree view of a member and maintaining that view going forward' (IBM, 2014). Their challenge in getting shoppers to accept the new data practices is to implement them in ways that do not alienate desirable customers worried about their privacy and even make them happy that they are receiving 'relevant' offers. The various actors share their implementation solutions through industry conferences, meetings with multiple clients, and coverage in trade magazines such as *Progressive Grocer*, *FierceRetail.com*, *FierceBigData.com*, and *Mobile Commerce Daily*. In the process, they are building a new social imaginary for shopping that reshapes the role of the customer, the nature of the store, and the makeup of the deal so they revolve around the extraction and implementation of huge amounts of data about the individual moving through the retail environment.

## *Reshaping the shopper*

To keep control over their aisles and profits, major brick-and-mortar supermarkets, big-box stores and department stores began in the mid-2000s to use new technologies for selling across desktops, laptops, tablets, mobile phones, and even television sets. In tandem, they began to formulate new 'loyalty' practices with the aim of 'owning the customer' for the Internet age. The upshot was an understanding of loyalty as a relationship in which shoppers submit to tracking and data mining regimes in exchange for personalized attention and offers realized through repetitive purchases. For consumers, mobile apps, social media and even games become venues for performing loyalty and accumulating rewards. For retailers and marketers, digitalized storefronts become like factories for generating data about where individuals go, what they buy, and how firms define them.

This new definition of loyalty is linked tightly to a changed understanding of – essentially a reshaping of – the shopper. Increasingly, the focus is not primarily on the customer as part of a larger social group or lifestyle segment. Rather, the forward-looking customer portrait is that of an individual described by dozens, even hundreds, of data points. To quote a Forrester consultancy report, the new norm is 'a company in which customer knowledge is drawn from everywhere, created centrally, and shared across the entire enterprise, so all stakeholders can act upon it and measure the results' (Sarno, 2014: 1).

Industry activities such as CRM, digital intelligence, loyalty systems and listening platforms are creating this new norm. They are reshaping how retailers construct the kinds of people they want as customers and how they should behave toward them. The process starts with a rethinking of their own customer transactions to ensure they can now connect different nuggets previously siloed in different databases. Retailers then add information bought from a variety of third parties. Chief among these are traditional

data brokers such as Acxiom and Experian. The purchases may also include information about prospects gathered from data-rich online and mobile advertising partners.

They start with basic demographic categories that merchants have coveted for generations – gender, age, number of children, home location and spending power. It then moves to streams of information about buying histories and Internet interests (including social media) that suggest lifestyles, personality and purchase inclinations that may reveal ways to prioritize individuals through various scores as well as to encourage and maintain loyalty. Then, there are the predictive-analytic calculations that yield predictions about individuals' purchases or values based on hundreds of data points. Macy's department store, for example, has in the recent past mailed half a million different versions of the firm's print catalogs, each aimed at providing hyper-personalized advertising (Schiff, 2012). Advertisements and other materials based on these relevance predictions are often personalized without any actual understanding of what customer categories or activities led to them. If they work, retailers use them in loyalty programs and deal-making without asking exactly why. As one big-data scientist says approvingly, 'Who you actually are is determined by where you spend time, and which things you buy' (Edge, 2014).

## *Reshaping the store*

But while executives at department stores, supermarkets and grocery stores have quite a developed understanding of how to best construct 21st century customers, they see a major drawback to implementing their new values: they are behind in the arms race. That is, they have only begun to buy and implement technologies that aim to develop that intelligence, particularly in the brick-and-mortar space. Executives at physical stores see what online retailing can do as their model of what they should be able to carry out in both the virtual and physical selling environments. Online stores place a premium on *individualized relevance.* This means finding ways to present the shopper with products that reflect that individual's interests, encourage the shopper to investigate the products onsite (and in the case of clothes virtually try them on) and offer the goods at personalized prices that reflect the individual's comfort zone. The cost of the individualized relevance, a cost shoppers rarely detect, is continual surveillance. Online sellers use myriad technologies to track, describe, score, tag and train individual customers and prospects.

Aware of this online armamentarium, a mini-industry of consultancies and technology firms is translating decades-long discussions about personalization into actual hardware to remake the store. 'They take all of the great attributes of a retailer's Web analytics', noted Doug Stephens, founder of the Retail Prophet consulting firm, '– who came to my site, how long did they stay, what did they look at and how did that convert to purchases – and apply them to the physical world'. As a result, he said, 'the store, in essence, is becoming a physical website' (Shaw, 2014). Brick-and-mortar emporia across the retail industry are adopting their solutions. Yet, large chains such as Macy's, Kroger, Walmart and Target are particularly exploring new ways of doing business that track customers across the online/offline world.

Especially important to these and other retailers are attempts to reshape how people move through the physical space. A growing number of firms provide 'geo-fencing' equipment that can send discounts to shoppers as they approach a store that knows about them.

Related hardware allows store 'greeters' to identify shoppers walking in and offer buying suggestions based on their past purchases. Inexpensive electronic boxes around the stores can follow shoppers' movements through specific aisles and even past specific products. Via smartphone apps, merchants can present the prospects with offers on their mobile devices based on their location in the store, their historical purchases and even competitive stores they have visited. Just as important, checkout is becoming a personalized experience, as stores find ways to encourage shoppers to agree to emailed receipts and payment via mobile devices. By making almost every customer interaction digitally recordable and traceable, both tacks aim to learn or extend knowledge of the shopper's identity – and to connect the shopper's offline shopping life with his or her online identity.

### *Reshaping the deal*

Data points collected through the online and offline tracking technologies allow retailers to act differently toward customers based on the worth a merchant places on each person and how it affects the deal he or she receives. Two decision points especially affect the triage of customers or prospects into different buckets for different deals. One relates broadly to their 'lifetime value', the inherent significance they hold in relation to the retailer's business models. The second relates to the products the retailer should highlight for particular individuals in the virtual or physical store as well as the prices they should charge them for the products.

These are shifting values. 'Lifetime' turns out to be about 5 years, and a person's reputation may change based on new information. Likewise, the algorithms for products and price tags a retailer associates with a person may shift based on knowledge about new purchases. Nevertheless, people do get tagged with particular reputations regarding their utility for the retailer. Retailers may present different views of products, discounts and other deals in virtual and physical stores, according to the reputation tags affixed to a customer profile. The tags likely also reflect and affect the position individuals hold in the retailer's loyalty scheme.

Some personalization technologies – discount coupons and app-deal targeting, for example – have already become part of retailers' relationships with many shoppers. According to a 2013 Google Shopper Marketing Council report, 79 percent of US smartphone owners are 'smartphone shoppers', and 84 percent of smartphone shoppers use their devices to help shop while in a physical store. Mobile coupons work, too. In 2012, about 25 million Americans used them each month (NPD Group, 2012).

## Jumpstarting the social imaginary: the case of Shopkick

The retailing industry is working to integrate many forms of personalized deals as taken-for-granted into everyday shopping. In practice, the reconstruction of the shopper, the store and the deal often take place together, via technologies that build multiple routines reflecting the new social imaginary. Shopkick, a retail loyalty-rewards app, provides an example of a tool that aims to build new shopper expectations and habits both outside and throughout the physical store. The idea behind the firm's technology is that shoppers will patronize merchants that give them points they can redeem for products. That notion

goes back at least to the Green Stamp era of the first half of the 20th century. Shopkick's approach, though, builds in the value of personal data and exploits the tracking and targeting affordances of smartphones – which form a nearly ubiquitous and consumer-subsidized marketing infrastructure (McGuigan and Manzerolle, 2014). Its geo-fencing technology requires the shopper to disclose his or her identity in a particular location. And its in-store tracking technology allows for deal personalization, and even personalized payment and checkout.

Shopkick's geo-fencing app works in conjunction with a small transponder terminal installed near a store's entrance. If a user has the Shopkick app open in proximity to the storefront, his or her device will recognize the terminal's inaudible ultrasound signal. The customer will receive reward points, redeemable at Shopkick's retail partners, for checking in, as well as for scanning items in the store (Zmuda, 2010). Different instruments – Bluetooth Low Energy (BLE) beacons – power the in-store tracking activities. The beacons work through small and relatively cheap units that communicate with Bluetooth-enabled devices. Positioned throughout an establishment, BLE beacons recognize compatible devices and trigger marketing messages to be sent to a customer's phone over Wi-Fi or an Internet-enabled cellular connection. Retailers hope to 'leverage location data from beacons to generate insight and analytics on customer behavior in-store' (Silverman, 2014: 6). These data will be mobilized to adjust how aisles and product displays are designed and how service staff engage with individual customers. For example, the President and CEO of Macy's noted that beacon technology will allow its executives to detect that a customer has been standing in front of a product for a period of time and then send a note of 'encouragement' to buy the specific product (Barragan, 2014). Beacons also let retailers track customer movements, recognize and authenticate the identity of specific shoppers (who may be identified by a loyalty account or a unique identifier associated with an app or a phone ID), issue context-specific marketing offers (such as when a customer approaches a specific aisle) and, in some cases, as with PayPal's beacon, facilitate payment directly through the smartphone and a PayPal account.

To be an effective tracker, the Shopkick app must be running near as well as in the store. The app must also be on a Bluetooth-enabled mobile device. According to the Forrester research consultancy, the technological momentum is on Shopkick's side. Forrester projects that 80 percent of US smartphones will have Bluetooth capacity by the end of 2015, up from 30 percent as of March 2014 (Silverman, 2014: 2). The beacon protocols are supported by Windows, Android, Apple and BlackBerry operating systems, and are built into the hardware of many of the latest smartphone devices. It is, of course, uncertain whether Shopkick itself will be the greatest beneficiary of quickly developing personalization technology. Certainly, by 2011, the company had a network of more than 2500 retailers (Graham, 2011). In 2013, it reported 6 million active users and revenue of US$26m. It had partnerships with MasterCard and Citigroup, test sites in two major Macy's stores, and installed iBeacons in all 254 Apple stores in the United States as well as 100 American Eagle Outfitters locations (Lunden, 2014). What's more, *Forbes* counted Shopkick among the 'most promising' firms in the United States (Slade and Inverso, 2014). Yet 4 years earlier, the *New York Times* had listed Shopkick along with startups FourSquare and Loopt as firms 'that are experimenting with ways to use cellphones to bridge the digital and physical worlds and turn the tasks of everyday life, like

buying coffee and running errands, into a game' (Miller, 2010). FourSquare and Loopt are not nearly as hot today as they were back then, and Shopkick could easily follow many firms as footnotes in the history of digital entrepreneurialism.

Business successes or not, the social significance of FourSquare, Loopt, RetailMeNot, Catalina Marketing and many firms like them is the new personalization architecture they are pushing into the retail space and the rhetoric they are aiming at the public and merchants. Articles about the new shopping environment present an air of inevitability about personalized surveillance in the retail space. All agree that the process is driven by an industrial logic that, to quote a Forrester report, 'Retailers can leverage location data from beacons to generate insight and analytics on customer behavior in store. This insight can lead to improvements in store layout or associate engagement techniques that drive higher conversion rate' (Silverman, 2014: 6). More broadly, the new retailing logic proclaims that to 'recapture the magic of retail days past' will require '[m]ore robust databases and better targeted communications', as the trade magazine *Advertising Age* put it (Zmuda, 2011). Continuing the argument chain, *USA Today* predicts, 'All of this will be made possible with so much personal data on smartphones, and the ability of merchants to parse it to gauge who is just browsing and who's on a mission to buy' (Swartz, 2012).

In attempting to convince shoppers they should accept the new technologies as part of their routines, Shopkick along with other retail-industry stakeholders have honed a new rhetoric. They take pains to separate their business activities from controversial categories of surveillance even as they use some of the same techniques (Sengupta, 2013). So, for example, the head of the Acxiom data-brokerage firm argued that 'Data regarding personal information that pertains to employment or insurability decisions, or that relates to sensitive health-related issues or confidential matters, deserves much different treatment than data that would indicate that I am a sports fan' (Howe, 2014). At the same time, industry spokespeople insist that customers stand to benefit enormously through relevant, personalized treatment – including discounts and deals that are more relevant to their needs than ever – that will ensue when they let merchants know their presence and give up data about themselves. Shopkick CEO Cyriac Roeding has spoken about these benefits in transformative terms. Upon being labeled a 'technology pioneer' by the World Economic Forum, he proselytized his company's mission in terms that signal the revolutionary scope of the new vision of retailing: 'We inject digital juice into the physical world, and make the offline, touchable world, a more interactive experience'.[2] In his public facing role, he told *USA Today* that 'the next five years will bring more change to retail than the last 100 years' (Swartz, 2012). The shopping apps, he says, will allow consumers to reclaim personal treatment characteristic of a bygone era in retailing. 'When you walk into a store', Roeding asked rhetorically,

> how often do you feel treated really well, like a VIP? A hundred years ago storekeepers might have welcomed customers as they arrived. Today, shoppers do not receive any recognition until they hand over their credit card and are just about to leave. (Frean, 2010)

Shopkick partner Macy's has adopted a similar posture that reshaping shoppers' routines to accept surveillance will not be difficult if the mantra is relevance. Describing a typical Macy's customer, one store executive asserted, 'She wants to go to a retailer that

understands her, is really relevant to the lifestyle she's living, and really does pay attention' (Zmuda, 2011). The corollary, for retailers, is learning as much as possible about the individual shopper before, during, and after store visits.

## New tensions of the new imaginary

Whether and to what extent this exhortation works for different parts of the population is unclear. In national surveys, almost half of adult American consumers say they don't want discount offers tailored to their interests (Turow, 2011). One reason may be that they worry they will not learn about serendipitous possibilities. Another reason may be the understanding by some people that retailers use their algorithm-driven approaches in ways that lead some customers to become winners and others losers when it comes to seeing particular products or prices. In 2012, for example, the *Wall Street Journal* investigated complaints about Staples' online site charging different prices based on customer locations and found that 'areas that tended to see the discounted prices had a higher average income than areas that tended to see higher prices' (Valentino-Devries et al., 2012). Stores even push certain types of 'losers' away, or at least give them offers that reflect low interest in gaining their loyalty. Even though most of these 'dynamic pricing' practices are legal, merchants try not to make people aware of their discriminatory decisions, thus causing rumors about them to circulate. It may well be that the rumors even exaggerate what takes places into forms resembling urban legends.

It *is* clear that these changes and the new consumer reputations merchants create and use are causing strains among merchants and their prospects. Sellers online and on mobile must change prices constantly and introduce new products rapidly to keep up with competition. In the physical world, supermarkets and big-box stores are experimenting with digital price displays on shelves; the merchants adjust prices by times of day depending on the expected customer groups. Brick-and-mortar managers also find that to quash showrooming possibilities, they must continually pitch attractive prices at desirable in-store prospects via their smartphones. As for shoppers, adding to their traditional stress about product quality and cost will be their uncertainty regarding whether the discounts hurled at them could have been better had they searched online earlier, presented a better profile to the store (without knowing what that is) or simply had a spending history that friends have (even though they don't know what that is, either).

We argue that the key reason for the tensions, the practice of social discrimination, is very much at the core of the transformation of everyday retailing via the new social imaginary. As noted, the changes are part of a long-term transition from very different norms established during the previous 150 years. Sellers have historically considered prices and sometimes even the array of products for sale as matters not typically open to public scrutiny. In the United States, that changed beginning the mid-19th century, with wide arrays of publicly displayed products in department stores and supermarkets priced in an open manner. Inherent in the new imaginary is retailers' retreat from the democratizing impulse of 20th century retailing. Online and offline technologies now drive scenarios where products and prices *appear* as if they are public – the websites and apps look similar to what others get, and the physical store aisles with prices listed next to products are certainly publicly accessible. Increasingly, though, the products and the prices merchants highlight for customers on their screens at home and in stores are

tailored based on how the merchant tags them. Sometimes shoppers know this because their loyalty programs trumpet their special status. Sometimes they sense it because they see others paying more or less than they are charged. And sometimes they have no clue, although Annenberg survey research (Turow et al., 2005) suggests that even under those circumstances, shoppers have suspicions about being winners or losers.

The public's complex and sometimes confused approaches to the new retailing domains reflect Charles Taylor's awareness that a social imaginary must be seen as quite separate from the strategic approaches that elites constructed in organizational meetings, trade magazine articles and investment-oriented essays. At the same time, the disjuncture between the consensus among marketers and the confusion among the public reinforces the Gramscian point that 'common sense' on the ground can come with illogical propositions and internal inconsistencies. Retail-industry actors' nonlinear barrage of activities that lead different people to see different facets of the new selling regime also echoes Berger and Luckmann's idea of 'institutionalization' as the ongoing products of human actions in a historical context that may be seen, understood and accepted by different people in different ways. *Common sense* and *institutionalization* provide insights into how the social imaginary – the taken-for-granted understanding of how the everyday world works – takes root and becomes instantiated with norms and social structures that reflect the aims of the retailing elite. As they experience the new retailing strategies and technologies discussed above, consumers are being institutionalized into taken-for-granted values, habits and expectations of an increasingly data-driven and discriminatory marketplace.

Our goal in this study has been to note the dynamics as well as the possible social implications of this institutional fray. The naturalization of surveillance, personalized loyalty programs, and tailored deals may well lead the relative few who typically benefit from them to consider equally acceptable activities that differentiate citizens in other institutions – for example, healthcare marketers, lenders, employers and academic recruiters. Through it all, knowingly and not, and away from the spotlights of fierce social debate, retailers are encouraging daily routines that accept data-driven personalization as a centrifugal public force. While possibly healthy for the stores' bottom lines, this trend broadly threatens people's sense of democratic possibilities in society.

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## Notes

1. This remains part of industrial wisdom. In 2012, Target reported that customers using its store-branded debit card spent 52 percent more on average than other patrons (Wack, 2013).
2. http://www.weforum.org/videos/technology-pioneer-2013-cyriac-roeding-shopkick

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