The End of Shopping

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ABSTRACT

Self-acting "shopping agents" are no longer science fiction. Deployed by major platforms like Google, Amazon, and Walmart, AI systems are evolving from passive advisors to autonomous decision-makers capable of opening accounts, canceling subscriptions, and finalizing purchases without human oversight. Though AI shopping agents have the potential to improve consumer satisfaction and marketplace competition, shopping agents come with attendant risks. By foregrounding shopping's overlooked economic, psychological, and cultural stakes, we reframe the rise of AI agents as a critical challenge for the law and society, rather than a mere evolution in retail convenience. Drawing on sociology, marketing, and behavioral science research, we demonstrate how AI delegation will fundamentally reshape consumer markets by optimizing purchases while potentially consolidating corporate power, diminishing consumer agency, and eroding social connection. Traditional legal doctrines—built on assumptions of human deliberation—are structurally misaligned with algorithmic commerce. To address these gaps, we propose a machine-aware regulatory toolkit featuring "algorithmic nutrition labels," design nudges for preserving shopper self-determination, and structural safeguards, including age limits and sunset provisions. Without rapid legal intervention, algorithmic commerce threatens to undermine the economic discipline, personal autonomy, and social connections that give shopping meaning beyond mere acquisition.

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INTRODUCTION

Imagine waking up to a silent overnight alert: while you slept, your AI shopping agent quietly switched auto-insurance carriers and shaved $247 off last year's premium. Or imagine it selected the best running shoes under $90 for medium-distance, mixed-terrain runs, perfectly tailored to your stride, arch, and foot structure—without you visiting a single website or reading any fine print. Perhaps most remarkably, assume your autonomous agent rebooked your (refundable) vacation at a lower price as rates momentarily dropped overnight—without you lifting a finger.

A few years ago, this prospect sounded either impossible or ill-advised. Without our guidance, how could software know what to buy or when? But thanks to advances in artificial intelligence (AI), automated shopping no longer reads like science fiction. Rich user portraits, fused with real-time market data, give digital tools a decisive edge over humans. The human being with capacity for surveying only a handful of product listings can delegate market research to a machine capable of scrutinizing all publicly posted sales. Unlike us, these assistants never tire. In addition to scanning listings, the assistants can compare prices across retailers, filter irrelevant options, parse complex terms, and synthesize thousands of reviews—all to minimize risk and maximize value.

Moreover, unlike traditional comparison tools, digital agents promise not only to identify goods and services, but to purchase them—often before we even know we want them. More than mere advisors, AI agents can transact, open accounts, cancel subscriptions, and schedule deliveries. Simply put, their goal is to get things done. As AI agents proliferate, they will make countless micro-decisions on users' behalf—shaping markets, transactions, and daily life in subtle but far-reaching ways.

On the supply side, tech giants and leading retailers—Google, Amazon, Walmart—are all unveiling virtual shopping tools.[1] "Operator," OpenAI's invitation-only agent, has already executed live purchases.[2] Given that an estimated 85 percent of businesses will deploy AI agents in 2025,[3] retailers are already rewiring their infrastructure in preparation.[4] On the demand side, consumer

[1] *See* Pamela N. Danziger, *Walmart and Amazon Are Rolling Out AI Shopping Assistants for Holiday 2024*, FORBES (Nov. 1, 2024), https://www.forbes.com/sites/pamdanziger/2024/11/01/walmart-and-amazon-are-rolling-out-ai-shopping-assistants-for-holiday-2024/; Sayan Bose, *Amazon Makes Quiet Change to Shopping with New 'Buy for Me' Feature–But Customers Must Look for the 'Button'*, THE SUN (Apr. 30, 2025), https://www.the-sun.com/money/14141005/amazon-change-shopping-buy-for-me-feature/; Bryan Falla, *AI Product Discovery is Here: Optimizing for Google's Shopping Assistant and Beyond*, GODATAFEED BLOG (Jan. 24, 2025), https://www.godatafeed.com/blog/ai-product-discovery-google-shopping-assistant.

[2] Geoffrey A. Fowler, *I Let ChatGPT's New "Agent" Manage My Life. It Spent $31 on a Dozen Eggs*, WASHINGTON POST (Feb. 7, 2025).

[3] *AI Agents Statistics: Usage and Market Insights (2025)*, LITSLINK (Mar. 6, 2025), https://litslink.com/blog/ai-agent-statistics.

[4] Isabelle Bousquette, *Walmart Is Preparing to Welcome Its Next Customer: The AI Shopping Agent*, WALL ST. J. (May 15, 2025) ("As consumers begin to use AI agents

sentiment is warming, with a significant share of shoppers already using AI in their shopping or willing to trust an AI tool to complete a purchase.[5]

For many Americans—who devote more waking hours to shopping than to anything but work and sleep—such streamlining will be hard to resist.[6] With prices climbing on supply chain disruptions and tariff shocks, many consumers may find handing their shopping over to AI agents quite attractive. Shopping, once a daily necessity, could become an occasional pastime performed only for its experiential value or out of nostalgia, akin to apple-picking or sweater-knitting.

The farther humans retreat from search and selection, the more dramatically AI shopping agents could pool thousands of orders, negotiate in bulk, and—if properly designed and regulated—redeploy that leverage on their users' behalf. Once enough users delegate the power to make commercial choices to an AI assistant, the assistant can leverage its aggregate buying power to simultaneously switch thousands to a better deal, empowering consumers and improving marketplace competition. These converging forces—technological capability and scale, business uptake, and consumer receptivity—shift autonomous shopping from a speculative vision to a live law and policy frontier.

To be sure, other AI initiatives have prompted widespread concerns in many domains. Several states and municipalities now mandate opt-out provisions for automated decision systems,[7] and

to do their shopping, retailers are trying to figure out how to market to bots in addition to humans.").

[5] Efosa Udinmwen, *Consumers Are Warming Up to AI Assistants—1/3 of Us Would Allow AI to Make Purchases*, TECHRADAR (Mar. 23, 2025), https://www.techradar.com/pro/consumers-are-warming-up-to-ai-assistants-survey-finds-1-3-of-us-would-allow-ai-to-make-purchases.

[6] *See* Leornard Lee & Tim M. Bottger, *The Therapeutic Utility of Shopping: Retail Therapy, Emotion Regulation, and Well-Being*, *in* THE ROUTLEDGE COMPANION TO CONSUMER BEHAVIOR 38, 39 (MICHAEL R. SOLOMON & TINA M. LOWERY eds. 2018) (discussing the time individuals spend shopping); *Americans Spend 54 Hours per Year Online Shopping, Survey Finds*, YAHOO! NEWS (Aug. 7, 2024), https://www.yahoo.com/news/americans-spend-54-hours-per-124700541.html (reporting a survey that found that the average adult in the United States devotes roughly two full days a year to online deal-hunting).

[7] *See, e.g.*, COLORADO PRIVACY ACT, COLO. REV. STAT. § 6-1-1302 (2023); VIRGINIA CONSUMER DATA PROTECTION ACT, VA. CODE. ANN. § 591.577 (2023); NEW YORK CITY LOCAL LAW No. 144 § 20-87(b) (2021).

numerous voices call for protecting basic rights and maintaining humans in critical decision loops involving hiring, health care, and criminal justice.[8] Yet shopping—our most economically significant daily activity—has largely escaped political attention or scholarly scrutiny.[9] Shopping is so ingrained in our everyday routines that we rarely process its meaning and larger consequences. Unlike AI systems that may displace professionals or outsource high-stakes medical decisions, automated shopping agents have attracted little opposition, seemingly considered mere convenience tools with minimal risks.

But if we outsource our shopping moments, do we also outsource part of their meaning, sacrificing our privacy, agency, or identity in the bargain? In reality, AI shopping agents stand to transform life more profoundly than many ostensibly more controversial applications. Shopping represents far more than just mundane transactions. Its overall economic impact is enormous. Consumer spending drives roughly two-thirds of United States GDP,[10] prompting politicians to exhort citizens to shop for the good of the nation.[11] Structurally, shopping interactions determine the distribution of market surplus between consumers and producers, directly affecting economic equality, consumer trust, and market stability.[12]

The stakes extend far beyond economics. Shopping serves as a primary mechanism through which individuals construct identity,

[8] *See* Sandra G. Mayson, *Bias In, Bias Out*, 128 YALE L.J 2218 (2019) (critiquing the structural reproduction of social biases in algorithmic decision-making); Cynthia Estlund, *Technology, Employee Replacement, and the Future of Work*, 79 N.Y.U. ANN. SURVEY AM. L. 201, 214 (2023) (exploring the labor-related consequences of AI systems displacing human workers).

[9] On AI agents generally, a burgeoning area of legal scholarship, see Noam Kolt, *Governing AI Agents*, 101 NOTRE DAME L. REV. (forthcoming 2025), https://ssrn.com/abstract=4772956; Deven R. Desai & Mark Riedl, *Responsible AI Agents* (Feb. 20, 2025) (unpublished manuscript) (on file with authors); Mark R. Leiser, *Weapons of Mass Distraction: Large Action Models (LAMs) and Their Legal Implications* (2024) (unpublished manuscript) (on file with authors).

[10] *See* Plus500, *PCE: What You Need to Know*, https://www.plus500.com/en-ae/newsandmarketinsights/pce-what-you-need-to-know (noting that goods and services "comprise about two-thirds of domestic spending and drive the country's Gross Domestic Product").

[11] *See, e.g.*, Whizy Kim, *After 9/11, Americans Were Urged to Shop. It Was Patriotic*, VOX (Sept. 10, 2021, 9:00 AM), https://www.vox.com/the-goods/22662889/september-11-anniversary-bush-spend-economy.

[12] *See infra* Section II.A.

navigate relationships, and exercise personal agency.[13] Our consumption patterns simultaneously reflect and reinforce social hierarchies, cultural values, and community bonds.[14] Given shopping's pervasive influence across economic, psychological, and cultural domains, displacing human judgment and autonomy from this fundamental practice threatens profound disruption. The end of shopping as we know it could fundamentally restructure the relationship between individuals and markets, potentially altering the basic dynamics of social and economic life.

This Article examines the consequences of the shift to AI-mediated commerce through three key contributions. First, by drawing on economics, behavioral science, sociology, and technology studies, we develop the theoretical architecture for analyzing how automated commerce reshapes markets, individual autonomy, and social relationships. Second, deploying this architecture, we expose how current legal frameworks fundamentally misfire when software, not people, holds purchasing power. These antiquated frameworks rest on assumptions about human cognition and behavior that do not apply to AI systems and their algorithmic decision processes. Third, to address these gaps, we propose targeted legal interventions retaining the efficiency gains of automated purchasing while safeguarding market competition, consumer autonomy, and the social virtues of shopping.

The ensuing discussion unfolds in three Parts. Part I describes today's AI shopping tools and the firm- and consumer-side incentives driving their anticipated rapid evolution and adoption. Part II examines shopping across three fundamental dimensions—economic, psychological, and social—revealing how AI delegation offers convenience while simultaneously threatening human flourishing. Part III turns from diagnosis to prescription, supplying a machine-aware regulatory toolkit calibrated to AI shopping's most pressing dangers.

I. ARTIFICIALLY INTELLIGENT SHOPPING

Armed with comprehensive data about individual users and the larger marketplace, AI tools promise every consumer an always-on, hyper-competent personal shopper. Such a shopper could execute transactions on behalf of users, sparing them the time and hassle of finding goods and services. This Part surveys the technological and

[13] *See infra* Section II.B.
[14] *See infra* Sections II.B-II.C.

commercial forces propelling these tools from AI assistants (passive helpers) to AI agents (autonomous transactors). It also previews the deeper normative stakes of automated shopping, setting the stage for further exploration in Part II.

A. Data-Driven Personalization

Knowing your customer has always been the holy grail for retailers. With AI, an era of truly bespoke shopping is closer than ever.[15] AI shopping assistants synthesize two vast pools of information to deliver personalized recommendations. The first pool is users' data, such as browsing history, purchase records, location, demographic details, and device use.[16] User data may also include psychographic or sentiment analysis—techniques that interpret a user's personality traits, values, attitudes, and emotional states from their digital footprint. Armed with this information, an AI assistant can construct a detailed portrait of the individual shopper: their preferences, needs, wants, moods, habits, and triggers.[17] And the more a customer uses an AI chatbot, the better its recommendations become as it learns from its object of study.

Beyond the user's personal data. AI tools can also comb through vast databases of consumer profiles to locate like-minded users—"digital doppelgangers"—who share similar preferences and behaviors. By analyzing what these similar users purchased and enjoyed, the AI can better tailor its recommendations. This technique, often called collaborative filtering, is why Netflix can recommend

[15] *See, e.g.*, Walmart Inc., *Walmart Reveals Plan for Scaling Artificial Intelligence, Generative AI, Augmented Reality and Immersive Commerce Experiences*, WALMART (Oct. 9, 2024), https://corporate.walmart.com/news/2024/10/09/walmart-reveals-plan-for-scaling-artificial-intelligence-generative-ai-augmented-reality-and-immersive-commerce-experiences (promising to "create a unique homepage for each shopper making the online shopping experience as personalized as stepping into a store designed exclusively for each customer").

[16] This, of course, raises serious concerns about user privacy. We return to this challenge *infra* Part III.

[17] *See* Gregory M. Dickinson, *The Patterns of Digital Deception*, 65 B.C. L. REV. 2457, 2459 (2024).

shows you enjoy, and Amazon can suggest products you had not considered but find appealing.[18]

The second pool AI can leverage is a vast trove of market-level data. This pool encompasses product listings, price histories, competitor pricing, stock levels, third-party reviews, influencer content, etc. This broader dataset enables the construction of a comprehensive map of the marketplace: what's available, from whom, at what price, and under what conditions. By merging these two pools, AI tools can tailor options more precisely than any human shopper ever could, matching personal preferences to market realities.

Capitalizing on this promise, commercial entities are racing to make virtual assistants part of the standard shopping experience. Walmart, the largest retailer in the United States, released its AI-powered shopping assistant for the 2024 holiday season.[19] Rufus, Amazon's "shopping-focused answer to ChatGPT,"[20] has been integrated into more and more of the retailing behemoth's customer-facing interfaces.[21] Individual retailers like IKEA and Victoria's Secret provide their own AI aides, too.[22] And, importantly, it is not just retailers. Google, for instance, introduced its own shopping assistant in late 2024, hoping to steer more commercial activity its way.[23] In 2025, Google also introduced protocols designed to authenticate and secure transactions initiated by AI agents.[24] At the same time, Mastercard's Shopping Muse promises to help make "shopping smarter and more seamless than ever."[25]

These rapidly proliferating assistants share a common prominent selling point: narrowing information asymmetries. Consumers have always been hamstrung by imperfect information about the market,

[18] Qian Zhang, Jie Lu & Yaochu Jin, *Artificial Intelligence in Recommender Systems*, 7 COMPLEX & INTELL. SYS. 439, 441 (2021).
[19] Danziger, *supra* note 1.
[20] *Amazon's Rufus AI Shopping Assistant Now Lets Some Shoppers Check Price History*, WIRED (Oct. 10, 2024).
[21] Lauren Johnson, *Amazon Is Quietly Bringing Ads to Rufus, Its Gen AI Search Engine*, ADWEEK (Sept. 10, 2024).
[22] *Can AI Chatbots Make Your Holiday Shopping Easier?*, ASSOCIATED PRESS (Dec. 2, 2024).
[23] Kelly McCarthy, *Google Executive Shows How New AI Tools Work to Make Holiday Shopping Easier*, ABC NEWS (Nov. 20, 2024).
[24] Andrew Birmingham, *Google Launches Agent Payments Protocol to Secure AI-led Transactions*, MI3 (Sep. 17, 2025).
[25] Alisha Malik, *Mastercard Launches Shopping Muse, an AI-powered Shopping Assistant*, TECHCRUNCH (Dec. 4, 2023).

including limited knowledge of products and price alternatives. When consumers cannot easily compare available options, sellers can charge higher prices, offer lower quality, or impose unfavorable terms.[26] AI tools promise to bridge this gap, giving the consumer a more complete understanding of the larger marketplace and retailer representations.

While humans are only able to focus on a few product attributes and survey only a handful of retail listings, AI tools are capable of considering all information about a product and scrutinizing all publicly posted sales.[27] Unlike humans who get fatigued or distracted, an AI agent "can do one search, and that leads to other searches, and then it can synthesize all the information that it has learned"—continuing to dig deeper and refine its understanding in ways that would be impractical for even the most dedicated human shopper.[28] Amplifying AI's usefulness is its capability to track entire price histories, revealing how a retailer has sold a particular item over a relevant period.[29] Shopping assistants can even consider relevant variables left unmentioned by the purchaser. For example, when a customer asked Rufus to suggest an umbrella for their pool, Rufus took into account the shopper's location to consider facts about Florida weather and humidity germane to choosing among various umbrella features.[30]

Another key advantage of AI shopping assistants is that they can go beyond product listings and other communications issued by retailers. After all, sellers want to persuade us to buy their wares and their representations cannot always be trusted. Currently, consumers are often forced to take the advertiser's word for it and, in the online

[26] *See* George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488 (1970) (explaining how information asymmetry can degrade market efficiency); Luke Herrine, *Unfairness, Reconstructed* 42 YALE J. REG. 95, 112 (2025) (describing how consumer protection law focuses on market failures that interfere with consumer decision-making).

[27] Queenie Wong, *AI Is Changing Shopping. Will Consumers Buy In?*, L.A. TIMES, (May 24, 2025).

[28] Cade Metz, *OpenAI Unveils A.I. Tool That Can Do Research Online*, N.Y. TIMES (Feb. 2, 2025).

[29] For instance, Amazon's Rufus supplies shoppers with the entire price history of an item on Amazon, letting them know if that supposed deal really represents a substantial cost reduction. *See* Dave Paresh, *Amazon's Rufus AI Shopping Assistant Now Lets Some Shoppers Check Price History*, WIRED (Oct. 10, 2024).

[30] Rajiv Mehta, *How Customers are Making More Informed Shopping Decisions with Rufus, Amazon's Generative AI-Powered Shopping Assistant*, AMAZON (Sept 18, 2024), https://www.aboutamazon.com/news/retail/how-to-use-amazon-rufus.

context, supplement their understanding with a smattering of customer reviews featured on the retailer's own site. The laborious alternative is hopping from website to website in search of objective product information, something most individual shoppers do not have the time or patience for.[31]

By contrast, AI shopping agents can scrutinize a wide array of non-retailer sourced information. For instance, Google's Gemini searches user-generated content from fora like Reddit, Pinterest, and YouTube and distills news articles about products.[32] Digital agents can also incorporate recommendations from third-party review sites like *Consumer Reports* and *Wirecutter*.[33] While not all AI shopping tools are created equal,[34] their ability to canvas a vast array of information can empower users and allow them to benefit from the wisdom of crowds.

Furthermore, shopping agents can redress a particular information asymmetry for consumers: ubiquitous yet impenetrable digital contracts. Because no one has the cognitive bandwidth to read the fine print they find online, the odds are good that any online purchase comes attached to onerous terms of service.[35] With an AI assistant, however, even those impenetrable terms of service could be reviewed and factored into the overall purchase recommendation, making bad contractual terms part of the rational shopping calculus as opposed to

[31] Brian X. Chen, *Google Introduced a New Way to Use Search*, N.Y. TIMES, May 29, 2025 ("Unlike a traditional web search, which would require me to read reviews of various car seat models and jot down a list including their pricing and features, AI Mode did all this for me.").

[32] *See* Maghan McDowell, *Google Shakes Up Shopping With Generative AI*, VOGUE BUSINESS, Oct. 15, 2024.

[33] Brian X. Chen, *How to Use A.I. as a Shopping Assistant*, N.Y. TIMES, June 16, 2023.

[34] For example, Target's Bullseye Gift Finder only recommends products from Target, even if better options are available at Kohl's or Bed Bath & Beyond. *See* Nicole Silberstein, *Target Adds New AI-Powered Shopping Tools*, RETAIL TOUCHPOINTS (Dec. 9, 2024), https://www.retailtouchpoints.com/topics/data-analytics/ai-machine-learning/target-adds-new-ai-powered-shopping-tools.

[35] Ian Ayres & Alan Schwartz, *The No-Reading Problem in Consumer Contract Law*, 66 STAN. L. REV. 545, 546 (2014) ("[C]ompetition cannot cause firms to improve contract quality because consumers cannot shop comparatively for terms of whose existence they are unaware.").

a hidden pitfall.[36] All told, AI assistants promise much more extensive marketplace information and customer personalization than previous recommendation algorithms.[37]

The ambition behind AI shopping is bigger than making consumers better informed, however. At a certain point, the shopping assistant's knowledge about individual buyers and the larger marketplace will be so complete that it can be trusted to go beyond presenting options, instead being deputized to make purchasing decisions on behalf of users. As personalization deepens and AI capabilities improve, the line between assisting and deciding may blur—a shift to which we now turn.

B. From Assistants to Agents

Unlike current popular AI tools such as ChatGPT or Claude, AI agents will not require precise instructions or prompt engineering. As delegation deepens, consumers will hand over not just information-processing tasks but the power to make purchasing decisions. An AI agent authorized to book travel might not only identify the best flights and accommodations. Rather, it could complete the entire transaction process—applying available discounts, entering passenger information, selecting appropriate seats based on the user's preferences, and, if warranted, adding travel insurance.[38] It could even coordinate with calendar applications to block travel dates—all without requiring the user to conduct their own research or fill out a single form.

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[36] *See* Jens H. Krebs, Enguerrand Boitel & Paris Bradley, *How AI Might Soon Rescue Consumers from Signing Up for Unfair Terms and Conditions*, THE CONVERSATION (June 5, 2023).

[37] For example, Amazon pitches itself as the "everything store" but its offerings are not comprehensive, at least from the perspective of buyers who want the best product anywhere at the best price. Nicole Nguyen, "*Amazon's Choice" Does Not Necessarily Mean A Product Is Good*, BUZZFEED (June 14, 2019). Moreover, in various ways, Amazon steers customers to its own selected products and simultaneously keeps them unaware of the same or comparable items sold at Walmart, eBay, or other rivals. *See* Geoffrey A. Fowler, *It's Not Your Imagination: Shopping on Amazon Has Gotten Worse*, WASHINGTON POST (Nov. 22, 2023).

[38] *See* Trevor Laurence Jockins, *From Google to Expedia, AI Travel Agents Planning Future Trip Far Beyond "Assistant" Status*, CNBC (May 16, 2025), https://www.cnbc.com/2025/05/16/ai-travel-agents-planning-future-trip-far-beyond-assistant-status.html.

Beyond single purchases, an AI agent could maintain continuous vigilance over a consumer's needs. It could monitor household supplies and automatically reorder essentials when they run low.[39] It might notice that a once-favorite restaurant has shown steadily declining reviews—a subtle trend a human might miss—and adjust dining out bookings accordingly. It could also manage recurring obligations, such as subscription renewals or upcoming birthdays or anniversaries. This temporal autonomy fundamentally shifts shopping from a series of distinct decisions requiring human attention into a seamless, self-regulating background process—potentially eliminating not just the effort of making purchases, but even the need to remember what needs purchasing.

Taken together, these evolving capabilities represent not just an incremental improvement in shopping efficiency, but a fundamental reconceptualization of consumption itself. When fully realized, AI shopping agents will transform what has historically been an active, attention-demanding process into an always-on, background service that anticipates needs, optimizes decisions, and executes transactions largely without human intervention. This shift from shopping as an activity *we perform* to shopping as a service *performed for us* constitutes perhaps the most significant change in consumer markets since the advent of e-commerce.

Early articulations of this transformation are already here. Grocery stores prompt customers to use AI-enabled carts to find items on their shopping lists more efficiently.[40] Amazon's integration of Rufus into its iPhone app is an early move toward an ambient, persistent AI presence.[41] Walmart's Customer Support Assistant recognizes customers at the outset and goes beyond identifying intent

[39] *See From Aisles to Algorithms: Walmart's Tech-Forward Innovations for Time-Saving Shopping*, WALMART (Jan. 9, 2024), https://corporate.walmart.com/news/2024/01/09/from-aisles-to-algorithms-walmarts-tech-forward-innovations-for-time-saving-shopping (describing Walmart's "InHome Replenishment" that autonomously orders groceries and household essentials by tracking personal purchase histories along with broader consumer purchasing patterns).

[40] Asia Grace, *AI Has Taken Over Grocery Shopping—and Helping People Save Money Stealthily*, N.Y. POST (May 31, 2024), https://nypost.com/2024/05/31/lifestyle/ai-has-taken-over-grocery-shopping-and-helping-save-money-stealthily/.

[41] Ina Fried, *Prompt: Hands-on with Amazon's Rufus AI Assistant*, AXIOS (Mar. 5, 2024).

by taking actions like locating orders and managing returns.[42] Domino's Pizza deploys AI to make pizzas "before people order them," exemplifying the predictive capabilities of AI tools.[43] These and other developments reflect a broader trend: retailers are investing billions in AI innovations, laying the foundation for increasingly autonomous shopping tools.[44]

C. Driving Adoption: The Push and Pull of AI Shopping Agents

The shift from AI assistants to autonomous agents sits at the intersection of three powerful forces: technological capability, commercial incentive, and consumer demand. On the technological front, rapid advances in machine learning, big data, and real-time personalization make large-scale delegation technically feasible and commercially scalable. On the supply side, firms are pushing automation forward, motivated by cost savings, efficiency gains, and competitive advantage. On the demand side, consumers are pulled in by convenience, personalization, and behavioral tendencies that favor delegation. In all, AI shopping tools are often perceived as an opportunity to inform and empower buyers, sustain trust, increase sales, and reduce friction and returns.[45]

AI agents could unleash a huge surplus that can benefit both firms and consumers. From a business perspective, AI shopping tools not only reduce costs but also increase the likelihood that consumers will finalize their purchases.[46] For example, Mastercard claims a 15-20

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[42] *Walmart Reveals Plan for Scaling Artificial Intelligence, Generative AI, Augmented Reality and Immersive Commerce Experiences*, WALMART CORPORATE (Oct. 9, 2024) https://corporate.walmart.com/news/2024/10/09/walmart-reveals-plan-for-scaling-artificial-intelligence-generative-ai-augmented-reality-and-immersive-commerce-experiences.

[43] Francisco Velasquez, *McDonald's, Wendy's, and 4 More Chains Using AI to Feed You Faster*, QUARTZ (Jan. 14, 2025).

[44] Samantha Fields, *AI Chatbots Made Inroads into Holiday Shopping Last Year*, MARKETPLACE (Jan. 7, 2025), https://www.marketplace.org/2025/01/06/ai-chatbots-made-inroads-into-holiday-shopping-last-year/.

[45] *See, e.g.*, Michael R. Malone, *AI Assistant for Online Shopping*, U. MIAMI BUS. SCHOOL (Aug. 12, 2025), https://news.miami.edu/miamiherbert/stories/2025/08/ai-assistant-for-online-shopping.html ("An AI-powered streaming assistant developed by a Miami Herbert Business School professor helps online shoppers make better-informed decisions, resulting in increased sales and a reduction in returns.").

[46] Arthur Zaczkiewicz, *How the Next Phase of Personalization Drives Conversions*, WWD (May 23, 2023); *see also* Kateryna Cherniak, *Chatbot Statistics: What*

percent higher conversion rate when someone uses Shopping Muse in place of a traditional online search tool.[47] Now imagine the yield when the agent no longer needs to consult with its living master before shopping on their behalf. It is thus of little surprise that prominent technology companies like OpenAI, Amazon, and Microsoft are betting big on these tools. Many are experimenting with strategies to normalize machine-led consumption, all aimed at encouraging consumers to let non-humans make shopping decisions on their behalf.[48]

From the consumer perspective, AI shopping agents offer compelling advantages. As illustrated above, these agents will deliver cost-effective results by efficiently scanning options, comparing prices, and executing purchases. In basic economic terms, AI agents will considerably reduce, if not almost eliminate, transaction costs.[49] Meanwhile, improvements in natural language processing make interactions with shopping tools resemble human conversation—reinforcing consumers' willingness to engage.[50] For those who prefer minimal conversation, Google promotes its ability to let potential customers upload a picture—no lengthy prompt engineering necessary—to find an item.[51] Someone wanting to replace threadbare kicks could simply hold up their old shoes to a phone camera, say "I

Businesses Need to Know About Digital Assistants, MASTER OF CODE, May 23, 2025 https://masterofcode.com/blog/chatbot-statistics (noting that digital assistants contribute to "upselling" in 20 percent of case and that, for some industries, 70 percent of consumer-chatbot interactions result in a sale).

[47] *Michael Kors Is Mastercard's First AI-powered Shopping Assistant Retail Partner*, WWD (June 12, 2024).

[48] Markus Blut, Nancy V. Wunderlich & Christian Brock, *Facilitating Retail Customers' Use of AI-Based Virtual Assistants: A Meta-Analysis*, 100 J. RETAILING 293, 308 (2024); Jennifer M. Logg, Julia A. Minson & Don A. Moore, *Algorithm Appreciation: People Prefer Algorithmic to Human Judgment*, 151 ORGAN. BEHAV. & HUM. DEC. PROCESSES 90, 90 (2019).

[49] This might be exceptionally beneficial for consumers, given firms' incentive to sometimes inflate transaction costs rather than reduce them. *See* Jeff Sovern, *Toward a New Model of Consumer Protection: The Problem of Inflated Transaction Costs*, 47 WM. & MARY L. REV. 1635, 1661-82 (2006).

[50] *Can AI Chatbots Make Your Holiday Shopping Easier?*, ASSOCIATED PRESS (Dec. 2, 2024); *Michael Kors Is Mastercard's First AI-powered Shopping Assistant Retail Partner*, *supra* note 47 (describing how Mastercard's Shopping Muse retail assistant "recreates the in-store experience by translating consumers' colloquial language into tailored product recommendations").

[51] McCarthy, *supra* note 23.

need more shoes like this," and instantaneously have the desired replacement dropped into an online shopping cart.[52]

While these tools are not perfect, the benchmark for evaluating AI performance is not theoretical perfection but rather human decision-making. As described in Part II.A, human decision-making is plagued by cognitive biases, limited attention, and susceptibility to emotional manipulation. While consumers may wish for flawless AI agents, consumers would immensely benefit from tools that meaningfully outperform their own shopping capabilities. Moreover, whatever limitations current AI shopping tools have, they will likely diminish over time as technologies improve, data accumulates, and algorithms become more sophisticated at understanding individual preferences and adapting to consumer feedback.

People are already becoming accustomed to AI tools and are likely to grow more and more comfortable with automated purchasing.[53] Consumers are increasingly willing to let algorithms make decisions in their lives, especially when non-human tools offer tangible benefits like efficiency, cost savings, and ease.[54] Given the promise of AI shopping agents and recent patterns of consumer adoption, their widespread uptake appears likely.

The shift will be gradual but profound, with each small act of delegation—driven by convenience, personalization, or habit—masking a deeper structural transformation. Like frogs in water slowly brought to a boil, consumers may find themselves automating more and more of their purchases without recognizing the cumulative impact of this shift. But should we care that shopping, at least as we know it, may soon disappear?

II. BEYOND TRANSACTIONS: THE STAKES OF AI-LED SHOPPING

For something that consumes so much of our time and mental energy, shopping remains remarkably undertheorized in legal scholarship.[55] Paradoxically, as anthropologist Daniel Miller notes, the

[52] Tim Biggs, *'I Need More Shoes Like This': AI Could Be Your Next Shopping Assistant*, SYDNEY MORNING HERALD (Aug. 15, 2023).

[53] *See supra* note 5.

[54] Derek E. Bambauer & Michael Risch, *Worse Than Human?*, 53 ARIZ. ST. L.J. 1091, 1095 (2021). Overall, people become more accepting of algorithmic advice over time. *See* Logg & Moore, *supra* note 48, at 103.

[55] It does not help that shopping has often been coded as feminine, causing some reluctance in men to interrogate the pleasures they find in shopping, translating, at

material culture we acquire through shopping powerfully shapes our expectations and behaviors precisely because we rarely scrutinize it.[56] To better understand what's at stake in the shift to automated consumption, this Part delves into the economic, psychological, social, and cultural aspects of human-led shopping.

Section A examines shopping as marketplace competition, highlighting how consumer choice stimulates economic efficiency and innovation. Section B analyzes shopping as personal control, revealing how the activity itself facilitates autonomy and psychological well-being through experiences of anticipation and discovery. Finally, Section C investigates shopping as social connection, exploring how we transform the consumption of tangible goods into relational and transcendent rituals. Collectively, these three dimensions reveal how shopping contributes to human flourishing in ways that may be jeopardized in a new world of automated purchasing.

A. The Market Value of Shopping

This Section examines shopping through an economic lens, unpacking how consumer choice disciplines markets. We begin by contrasting the theoretical ideal of rational choice with the realities that constrain decision-making in consumer marketplaces. Then we examine how legal frameworks attempt—yet often fail—to facilitate rational shopping behaviors by reducing information asymmetries and combating deception.[57] Finally, we consider whether AI shopping agents might overcome these human limitations.[58]

1. The Theory and Reality of Rational Choice

Shopping is most commonly framed as a mechanism for satisfying individual preferences.[59] According to neoclassical economics, shopping exists to fulfill the rational desires of

times, into academic neglect of one half of the world's potential shoppers. *See* PACO UNDERHILL, WHY WE BUY: THE SCIENCE OF SHOPPING 98 (2000).

[56] DANIEL MILLER, STUFF 50 (2010).

[57] *See infra* Section II.A.2.

[58] *See infra* Section II.A.3.

[59] *See, e.g.*, Gary Lawson, *Efficiency and Individualism*, 42 DUKE L.J. 53, 60 (1992) (discussing how individual preference satisfaction underpins efficiency as a normative goal in economic and legal theory).

individuals.[60] Consumers evaluate and select among competing products to maximize their satisfaction, prompting providers to enhance quality, lower prices, and innovate to remain competitive.[61]

There are two preliminary points to note about this model of shopping. First, so long as purchasing decisions reflect a consumer's preferences, the value of those preferences is not to be questioned.[62] It does not matter if buying sugary foods harms health, if gas-guzzling vehicles endanger the planet, or even if alternative choices might, in the long run, make us happier. As Oliver Wendell Holmes, Jr. declared over a century ago, "the taste of any public is not to be treated with contempt."[63]

Second, under the theory of rational choice, there is nothing inherently good about shopping itself. Instead, shopping is a means to an end.[64] That is, shopping is conceptualized more as a necessity than an activity with intrinsic value. In apparent alignment with economic theorists, people often complain about shopping, or at least certain kinds of shopping,[65] with the most common form of shopping—grocery shopping—ranking as the least enjoyable.[66] In this respect, consumer sentiment mirrors economic theory: all else equal, the more shopping can be streamlined—i.e., with lower transaction costs—the better.

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[60] *See, e.g.*, RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 4–6 (9th ed. 2014).

[61] *See, e.g.*, Friedrich A. Hayek, *The Use of Knowledge in Society*, 35 AM. ECON. REV. 519, 520-21 (1945); George J. Stigler, *The Economics of Information*, 69 J. POL. ECON. 213, 224 (1961).

[62] Fed. Trade Comm'n v. Algoma Lumber Co., 291 U.S. 67, 78 (1934) ("[T]he public is entitled to get what it chooses, though the choice may be dictated by caprice or by fashion or perhaps by ignorance.").

[63] Bleistein v. Donaldson Lithographing Co., 188 U.S. 239, 251-52 (1903). While Holmes invoked this principle to justify a low threshold for copyright protection, similar deference to consumer choice pervades the law.

[64] Catharine Bond Hill, *The Market, the American Dream, or Dreams of the Lottery: The Robert H. Atwell Plenary Address*, ACE (April 4, 2019), https://sr.ithaka.org/publications/the-market-the-american-dream-or-dreams-of-the-lottery/ ("most economists think of markets as a means to an end").

[65] Tracey Lomrantz Lester, *Almost Half of Women Say They Hate Shopping for Clothes! Are You One of 'Em?*, GLAMOUR (July 6, 2011) (survey data showing that women report not enjoying shopping for clothes).

[66] Kimberley Drobny, *2023 Retail Customer Experience Survey*, THEATRO (Jan. 25, 2023), https://www.theatro.com/retail/theatro-2023-retail-customer-experience-survey/.

Although the preference-satisfaction model posits that consumers choose freely and rationally, market conditions often fall short of this ideal. For starters, consumers rarely have access to complete information about products and services. Critical details about quality, safety, durability, or long-term costs may be obscured, unavailable, or too costly to obtain. The result is a systematic gap between what fully informed consumers would choose under ideal conditions and what they actually choose under real-world ones.

One might argue that the digital age—where consumers have access to extensive product data and peer reviews—narrowed this informational gap.[67] But today's online resources are no panacea: shoppers must navigate fake reviews,[68] biased endorsements,[69] and choice overload,[70] which often lead to shopper confusion[71] and dissatisfaction.[72] The proliferation of unreadable online contracts and privacy policies further underscores the disconnect between apparent transparency and actual informed choice.[73]

[67] Indeed, earlier scholarship on online commerce made just this argument. *See, e.g.*, Michael R. Ward & Michael J. Lee, *Internet Shopping, Consumer Search and Product Branding*, J. PRODUCT & BRAND MGMT. 6, 7 (2000) ("[W]ith the low cost of Web publishing, firms can offer more product information . . . This results in more product information, on balance, being supplied to consumers than ever before.").

[68] *See, e.g.*, Peter Allen Clark, *As Fake Online Reviews Spread, So Do Consumers' Concerns*, EMARKETER (Feb. 13, 2025), https://www.emarketer.com/content/fake-online-reviews-spread--do-consumers--concerns (75 percent of consumers are concerned about fake reviews). Fake product write-ups are rampant. *See How to Spot Fake Online Reviews*, CONSUMER REPORTS (July 4, 2023) (suggesting that 42 percent of Amazon reviews are fake).

[69] Alexandra J. Roberts, *False Influencing*, 109 GEO. L.J. 81, 84-85 (2020).

[70] *See, e.g.*, Ethan Holland, *The AI Future: Exploring the "Adjacent Possible" with Emerging AI Solutions*, DEL. LAW., Fall 2023, at 10, 13 ("Currently, even the simplest of searches leads to a sea of pages stuffed with keywords and filler. The onus is on us to find the signal in the noise when searching.").

[71] *See* Alexander Chernev, Ulf Bockenholt & Joseph Goodman, *Choice Overload: A Conceptual Review and Meta-Analysis*, 25 J. CONS. PSYCH. 333, 335 (2015).

[72] *See, e.g.*, Rony Kurien, Anil Rao Palia & Asha Nagendra, *Application of Paralysis Analysis Syndrome in Customer Decision Making*, 11 PROCEDIA ECONOMICS & FINANCE 323, 323, 334 (2014) (showing that more choices can lead to greater dissatisfaction because expectations are raised).

[73] *See, e.g.*, Tim Samples, Katherine Ireland & Caroline Kraczon, *TL;DR: The Law and Linguistics of Social Platform Terms-of-Use*, 39 BERKELEY TECH. L.J. 47 (2024) (documenting the problem of unreadable, lengthy, and complex online consumer contracts).

Even if consumers could access perfect market information, their ability act on it would still be constrained by cognitive limitations. Behavioral economics has shown that consumers routinely rely on mental shortcuts that lead to predictable errors in judgment.[74] Shoppers tend to overvalue scarce items, search and interpret information so as to confirm their pre-existing beliefs, favor prices ending with the digit 9, and exhibit unrealistic optimism about their future wealth or health—all of which skew decision-making away from rational, optimal outcomes.[75]

Moreover, consumer choices are frequently shaped by emotional appeals that bypass rational evaluation. Advertising often prioritizes persuasion over information, aiming to evoke feelings—status, nostalgia, fear, desire—rather than communicate objective product attributes.[76] The ubiquity of celebrity endorsements, luxury branding, and lifestyle marketing illustrates the degree to which consumers are influenced by non-informational signals attaching symbolic meaning to goods.[77] By leveraging consumers' cognitive biases and emotional susceptibilities, retailers subvert shoppers' best efforts to optimize their consumption, compromising shopping's utility under the rational choice model.[78]

Perhaps the most subtle argument against the rational choice theory questions the theory's assumption that markets satisfy

[74] *See* DANIEL KAHNEMAN, THINKING, FAST AND SLOW 6-7, 9 (2011) (explaining how behavioral biases lead to systematic errors in judgment and decision-making).

[75] *See* Gorkan Ahmetoglu, Adrian Furnham & Patrick Fagan, *Pricing Practices: A Critical Review of Their Effects on Consumer Perceptions and Behaviour*, 21 J. RETAILING & CONSUMER SERV. 698 (2014); Kenneth C. Manning & David E. Sprott, *Price Endings, Left-Digit Effects, and Choice*, 36 J. CONS. RES. 328, 328 (2009).

[76] NEIL M. ALPERSTEIN, CELEBRITY AND MEDIATED SOCIAL CONNECTIONS: FANS, FRIENDS AND FOLLOWERS IN THE DIGITAL AGE 198 (2019) (contending that celebrities and those famous in particular niche groups—so-called micro-celebrities—account for a third of all consumer decision making).

[77] Some might argue that emotionally grounded preferences are as valid as information-based ones. Descriptively, we suggest that emotional appeals often crowd out relevant product information, steering consumers toward choices that may not reflect their underlying preferences. Normatively, decisions driven by emotional appeals can lead to worse outcomes—e.g., higher prices, lower quality, or environmentally harmful purchases—than those grounded in substantive evaluation. *See* MARK BARTHOLOMEW, ADCREEP: THE CASE AGAINST MODERN MARKETING 105-08 (2017) (discussing social consequences of emotional and manipulative advertising techniques).

[78] *See* Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 112 HARV. L. REV. 1420, 1439 (1999).

preexisting consumer demand rather than inducing it. According to this critique, rather than being internally generated, consumer preferences are often constructed or shaped by external influences.[79] Marketing campaigns, social norms, and cultural narratives imbue products with symbolic meanings that affect what consumers want. An illustrative example is De Beers' 1930s "A Diamond is Forever" campaign, which manufactured the tradition of the diamond engagement ring, embedding diamonds in cultural ideals of romance and commitment.[80]

Similarly, consumers frequently base their choices on what others are choosing rather than one's independent evaluation. Knowing this, retailers exacerbate constructed shaping of preferences by highlighting popular items as "trending," designing interfaces that emphasize socially validated choices, and creating shopping environments that amplify peer influence. This reliance on others' choices to make buying decisions further undermines the idea that shopping reflects autonomous, independent preference satisfaction.

Of course, there is no way (nor a normative desire) to seal off shoppers from the larger culture in which they live. Humans are inherently social beings, and preferences inevitably reflect social context. But when preference formation becomes a commercial battleground rather than an autonomous process, the descriptive power and normative appeal of the rational choice model are fundamentally undermined.[81] The model presupposes that consumers reward superior products, not superior manipulation.

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[79] Daniel Markovits, Barak D. Richman & Rory Van Loo, *Consumer Law as an Axis of Economic Inequality*, 102 B.U. L. REV. 1169, 1171 (2022). *See also* Meghan Pane, *Navigating the Algorithmic Marketplace: Reassessing Trademark Law in the Age of the Artificially Intelligent Consumer*, 77 RUTGERS L. REV. 197, 210 (2024) (contending that AI is further exacerbating exogenous preference construction by "usurp[ing] control over the antecedent step of recognizing a need or desire for a purchase").

[80] Anne E. Andrews, *A Diamond Is Forever: De Beers, the Kimberley Process, and the Efficacy of Public and Corporate Co-Regulatory Initiatives in Securing Regulatory Compliance*, 2 S.C.J. INT'L L. & BUS. 177, 183 (2006).

[81] Markovits et al., *supra* note 79, at 1171 ("Insofar as advertisers succeed at these manipulations, buyers' purchasing behavior may cease to track what economists call their normative preferences, which are preferences whose satisfaction improves buyers' well-being."). *See also* Shayak Sarkar, *Consumer Expectations and Consumer Protection*, 88 GEO. WASH. L. REV. 949 (2020) (discussing the role of public actors in shaping consumer expectations).

2. The Promise and Limits of Law in Facilitating Rational Shopping

Every shopping decision involves a tradeoff: a rational shopper must weigh not only the pros and cons of metrics such as price and quality, but also whether the additional time and cognitive effort of further research about a product is worthwhile. The shopper may suspect that the well-known brand name featured on a retailer's website signals inferior quality, or that a seller's claim of scarcity is exaggerated.[82] Yet, faced with limited time and imperfect information, she may reasonably conclude that it is safer to pick the familiar brand because others have.[83] For human purchasers, making the optimal purchasing decision must always be weighed against the optimal time to spend in arriving at that decision.[84]

Against these constraints, the law prescribes measures to facilitate preference satisfaction. Trademark law's prime directive is to minimize consumer search costs.[85] When consumers confront confusingly similar trademarks, they are forced to expend additional effort verifying the source of a product, lest they inadvertently purchase from an unintended provider. The law prohibits even "initial interest confusion"—situations in which a consumer is temporarily misled by a competitor's mark, even if that confusion dissipates before the purchase is complete.[86]

Beyond trademark law, false advertising and other consumer protection statutes aim to shield the public from misleading communications, which can undermine efficient market exchange.[87] Relatedly, the law reduces the informational complexity of shopping by standardizing key disclosures. Truth-in-lending laws standardize how interest rates are calculated and disclosed, while the Magnuson-

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[82] Falk Lieder & Thomas L. Griffiths, *Resource-Rational Analysis: Understanding Human Cognition as the Optimal Use of Limited Computational Resources*, 43 BEHAV. & BRAIN SCI. 1, 13 (2020).

[83] Michael Grynberg, *AI and the "Death of Trademark,"* 108 KY. L.J. 199, 207-08 (2019).

[84] Or in simple economic terms, every activity has opportunity costs: resources devoted to one purpose cannot simultaneously be used for another.

[85] Mark Bartholomew, *Navigating Trademark's Empirical Turn*, 62 HOUSTON L. REV. 247, 248 (2024); Mark P. McKenna, *A Consumer Decision-Making Theory of Trademark Law*, 98 VA. L. REV. 67, 75 (2012).

[86] *E.g.*, Select Comfort Corp. v. Baxter, 996 F.3d 925, 929 (8th Cir. 2021).

[87] Jeff Schwartz, *The Corporatization of Personhood*, 2015 U. ILL. L. REV. 1119, 1165-66 (2015).

Moss Warranty Act imposes uniformity on warranty terms across products.[88] These and similar initiatives reduce transaction costs and facilitate efficient information transmission.

For a variety of reasons, however, these measures remain partial in scope, chronically under-enforced, and unable to keep pace with market innovation and firms' efforts to circumvent regulation.[89] Limited regulatory resources result in underenforcement of consumer protection laws,[90] allowing misinformation and disinformation to persist in the marketplace. Proposals for stronger consumer protections are often blocked by business lobbying.[91] For their part, policymakers frequently reject enhanced protections for fear that stricter regulation of commercial communications would harm economic interests.[92] Finally, the consumer's interest in efficient shopping may not only be opposed by well-organized businesses but also be pitted against free speech concerns. In recent decades, the Supreme Court has expanded First Amendment protections for commercial speech, curtailing regulatory interventions in favor of expressive tastes.[93] The end result of these forces is a market stalemate: consumers remain trapped in

[88] 15 U.S.C. §§ 2301–2308; *see also* Walton v. Rose Mobile Homes LLC, 298 F.3d 470, 472 n.3 (5th Cir. 2002) ("The MMWA establishes standards governing the content of consumer product warranties.").

[89] Lauren E. Willis, *Performance-Based Consumer Law*, 82 U. CHI. L. REV. 1309, 1309 (2015) ("with modern experimental and data-analysis techniques, firms can run circles around … [disclosure and design] rules").

[90] Jean Braucher, *Defining Unfairness: Empathy and Economic Analysis at the Federal Trade Commission*, 68 B.U. L. REV. 349, 403 (1988); *see also Federal Trade Commission Strategic Plan for Fiscal Years 2022-2026—February 2025 Update*, https://www.ftc.gov/system/files/ftc_gov/pdf/fy-2022-2026-ftc-strategic-plan-2025-update.pdf.

[91] *See, e.g.*, Shmuel I. Becher, *Ex Ante Access to Justice*, 30 COMPETITION & CONSUMER L.J. 138, 145-52 (2023) (demonstrating how corporate power and regulatory capture may have shaped protections against unfair contract terms in New Zealand and framing the findings as an ex ante access to justice issue).

[92] *See, e.g.*, Christopher Bret Alexander, *The General Data Protection Regulation and California Consumer Privacy Act: The Economic Impact and Future of Data Privacy Regulations*, 32 LOY. CONSUMER L. REV. 199, 200 (2020) (discussing business efforts to lobby Congress to limit consumer data protection proposals by citing costs of compliance); Elizabeth Earle Beske, *The Court and the Private Plaintiff*, 58 WAKE FOREST L. REV. 1, 46 (2023) (chronicling Congress' concern with the "increased cost to business" of credit card identity theft protections).

[93] Sorrell v. IMS Health Inc., 564 U.S. 552, 576 (2011); Edenfield v. Fane, 507 U.S. 761, 771 (1993).

inefficient shopping environments that do not optimally satisfy their preferences.

3. Can AI Shopping Agents Achieve Rational Shopping?

AI tools promise a way out of this impasse. A shopper on their own may be hopelessly outgunned when it comes to trying to maximize their preferences, but a shopper aided by AI may just be able to make it a fair fight. By shifting the burden of processing information from the individual consumer to an autonomous agent, AI agents may considerably mitigate the primary barriers to rational shopping: market-based obstacles (like information asymmetry and transaction costs), cognitive biases, emotional manipulation, and exogenous preference construction.

First and foremost, AI agents have the potential to overcome the problem of information asymmetry and inflated transaction costs.[94] As explained, a key obstacle to rational shopping lies in consumers' inability to access or process relevant information—whether buried in fine print, scattered across various fora, or obscured by web design or the product itself. By delegating shopping to an AI agent, consumers could benefit from the agent's far greater informational reach and processing capabilities. The agent could unearth hidden fees, detect inferior warranties, warn against one-sided privacy policies, or flag products with poor reputational signals—thus addressing the very asymmetries that frustrate preference satisfaction.[95]

AI agents may also reduce the friction involved in acting on that information—particularly the switching costs that discourage consumers from abandoning unsatisfactory providers.[96] By automating

[94] Businesses are already heralding the efficiency gains from their AI commercial facilitators. Amazon touts Rufus as saving shoppers' time while Macy's describes its AI as a "tool that's going to make shopping easier for our customer" by speeding up the browsing and buying process. McCarthy, *supra* note 23.

[95] For a similar general argument, see Yonathan A. Arbel & Shmuel I. Becher, *How Smart Are Smart Readers? LLMs and the Future of the No-Reading Problem*, in *The Cambridge Handbook of Emerging Issues at the Intersection of Commercial Law and Technology* 336, 349-50 (Stacy-Ann Elvy & Nancy S. Kim eds., 2025) (finding that LLMs can identify and analyze quite well exploitative terms in standard form contracts).

[96] *See* Sovern, *supra* note 49; Alexi Horowitz-Ghazi & Jeff Guo, *The Subscription Trap*, NPR (Oct. 18, 2024), https://www.npr.org/2024/10/18/1210938543/subscription-economy-dark-patterns-negative-option-billing-click-to-cancel (noting

the steps of cancellation, account migration, or price comparison, AI agents could enable users to escape loyalty traps that no longer serve their interests. Rather than becoming fatigued by choice and information overload, the AI shopper will simply crunch the numbers to find the best option.

Moreover, AI agents could intensify competition by expanding the market's "surface area." Because their algorithms can mine data from various feeds, direct-from-factory platforms, and specialty forums—not just the first page of search results—agents are uniquely positioned to surface the offerings of relevant smaller or less known suppliers. Google's AI model, for example, provides access to 50 billion continually refreshed product listings.[97] By lowering discovery barriers, agents may erode brand-name markups and convert formerly niche producers into viable alternatives, enlarging consumers' feasible choice set.

Likewise, AI agents hold promise in avoiding cognitive biases that undermine human judgment. A digital agent will not be seduced, for example, by a "trending" sign or by a splashy product placement. Consumers routinely fall prey to heuristics and biases—leading them to favor higher-priced "sale" items, default renewal options, or brands positioned as "bestsellers." Lacking human affect, the AI can easily bypass the psychological shortcuts marketers exploit and focus solely on attributes like price, durability, or value per unit.

In addition to serving as a shield against cognitive biases, AI agents may also insulate consumers from emotional manipulation. Luxury branding, influencer endorsements, appeals to nostalgia, and scarcity signals work by shaping affective responses rather than conveying substantive information. For an AI tool, however, such cues are irrelevant noise: one brand name has no more appeal than another, and emotional messaging has no impact. A digital agent tasked with selecting a product would not in itself care whether a handbag is associated with status or whether a product is trending on social media (unless, of course, instructed otherwise by the user). By filtering out emotional appeals, the agent might enable a cleaner mapping of consumer preferences to market offerings.

That said, AI's potential to facilitate rational preference satisfaction depends on the quality and completeness of the data the

that "some companies have designed their offerings to be as easy as possible to sign up for and also as difficult as possible to cancel").

[97] Wong, *supra* note 27.

agent relies upon. While AI may escape human cognitive distortions, it introduces the possibility of machine-level distortions that can be harder to detect or contest.[98] If the underlying information ecosystem remains polluted by incomplete disclosures or algorithmically manipulated rankings, even a highly capable AI will be hampered. For example, firms may opt to selectively reveal different prices to different agents, implement technical barriers to comparison, or create information environments that appear comprehensive while subtly directing agents toward higher-margin offerings.[99] Moreover, to the extent the agent's recommendations are reliant on prior purchase histories, social data, or user engagement patterns, the irrational biases of the past may be indirectly baked into its algorithms.[100] Without structural interventions, there is no guarantee that automation will translate into greater rationality.

Finally, even as they facilitate preference satisfaction, AI agents can also influence the very construction of those preferences. The design of AI agents could be shaped by institutional priorities. If a retailer or platform embeds its own commercial agendas into the agent's recommendation engine—favoring in-house brands, sponsored listings, or high-margin products—the consumer's preferences risk being subordinated to the intermediary's interests. Even mostly well-intentioned platforms may privilege their own commercial relationships, subtly nudging recommendations toward affiliated products. In this way, AI agents could substitute one form of preference distortion (emotional or misleading advertising) for another (platform bias), reproducing structural vulnerabilities under a veneer of automation.

Some scholars note the optimistic possibility that market competition among digital tools would avoid this problem, incentivizing more trustworthy agent designs.[101] In a vibrant market

[98] *See* HILKE SCHELLMANN, THE ALGORITHM: HOW AI DECIDES WHO GETS HIRED, MONITORED, PROMOTED, AND FIRED AND WHY WE NEED TO FIGHT BACK NOW 163 (2024).

[99] *See* Abbey Stemler, *Surveillance Pricing* (SSRN, 2025) (examining how businesses may use consumer data to implement customer-specific pricing strategies that extract maximum consumer surplus).

[100] GARY RIVLIN, AI VALLEY: MICROSOFT, GOOGLE, AND THE TRILLION-DOLLAR RACE TO CASH IN ON ARTIFICIAL INTELLIGENCE 139 (2025) (discussing problem of AI being trained on Wikipedia even though less than 15 percent of Wikipedia authors are female).

[101] Rory Van Loo, *Digital Market Perfection*, 117 MICH. L. REV. 815, 825-26 (2019).

for shopping agents, consumers could select agents provided by businesses that do not sell most end goods or services, like Google or Microsoft, over potentially more biased offerings from retailers like Amazon and Walmart. Possibly, consumers could even design their own agents based on the offerings of neutral platforms.[102]

We believe this optimistic scenario is indeed viable yet contingent on more than market solutions. The opacity of AI models is a longstanding problem, making it difficult both to evaluate performance and to understand why the model performs the way it does.[103] The inherent difficulty of auditing algorithmic decision-making, combined with consumers' inability to observe or evaluate an agent's underlying logic, may weaken the disciplining power of competition.[104]

This underscores a central paradox: The shift from human judgment to algorithmic recommendation alters the locus of vulnerability but does not eliminate it. To fulfill their potential as facilitators of rational choice, AI agents must not only be technologically capable but institutionally accountable. As we explore in Part III, realizing the promise of AI-assisted rational shopping will require legal and policy safeguards to ensure that autonomous agents prioritize user interests over platform incentives.

B. Shopping, Autonomy, and Control

The previous Section presented shopping primarily as a utilitarian exercise: an information-seeking activity aimed at satisfying preferences and fostering competition. According to this reading, the focus lies on outcomes—i.e., whether consumers satisfy their preferences via open market transactions. But this account overlooks

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[102] While some consumers might be able to design their own agents, it is also important to address the risk that not all consumers will benefit equally from AI shopping agents due to the digital divide. Along these lines, recent evidence suggests that when AI tools negotiate, the more advanced tools outcompete their inferior counterparts; *see* Caiwei Chen, *When AIs Bargain, A Less Advanced Agent Could Cost You*, MIT TECH. REV. (June 16, 2025), https://www.technologyreview.com/2025/06/17/1118910/ai-price-negotiation/.

[103] ARVIND NARAYANAN & SAYASH KAPOOR, AI SNAKE OIL: WHAT ARTIFICIAL INTELLIGENCE CAN DO, WHAT IT CAN'T, AND HOW TO TELL THE DIFFERENCE 12 (2024) (discussing how AI's opacity leads to accountability problems); Amy Cyphert et. al., *AI Cannibalism and the Law*, 22 COLO. TECH. L.J. 301, 302-03 (2024) ("Even for technical experts who understand how the algorithms perform, 'explainability'—or how the algorithm arrives at its output—is an elusive goal in the field of AI.").

[104] *See also infra* note 140 and accompanying text.

other critical dimensions, as the very process of selecting among products and services offers unique psychological benefits. Shopping functions as a key domain for experiencing and expressing autonomy—a pillar in human flourishing—through acts of identity construction, anticipation, and discovery. In the discussion that follows we consider whether outsourcing shopping to AI risks eroding these autonomy-enhancing functions.

1. Consumer Autonomy: Identity, Anticipation, and Surprise

Being able to make decisions that determine our own life is critical for self-esteem.[105] Below, we show how shopping fosters autonomy through three mechanisms: identity construction, anticipation, and surprise.

Identity. One way shopping fosters a sense of control is by enabling individuals to construct and express their identities through consumer choices. People are inherently motivated to use products to confirm and signal who they are.[106] We see who we are through what we consume: clothing, home décor, food, and many other retail items all serve as tools for self-expression and cultural affiliation. To take one seminal scholarly example, the sociologist Pierre Bourdieu argued that consumption patterns reflect and reproduce social class. His work illustrated how middle-class consumers select products to project cultural sophistication, while upper-class shoppers favor understated luxury to signal natural "good taste."[107]

Some brand selections visibly express an aspirational self—think Apple, Harley Davidson, or Rolex. Purchasing decisions can signal innovation, environmental concern, political alignment, or cultural identity, thereby providing a sense of agency. The decision to buy—or, when circumstances change, to sell—a product like a Tesla exemplifies how consumption operates as a vehicle for personal expression and evolving social meaning.

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[105] Wen Yu Chai, Sylvia Y. C. L. Kwok & Minmin Gu, *Autonomy-Granting Parenting and Child Depression: The Moderating Roles of Hope and Life Satisfaction*, 27 J. CHILD & FAMILY STUD. 2595, 2602 (2018); Robert Young, *The Value of Autonomy*, 32 PHIL Q. 35, 40, 43 (1982).

[106] Eugina Leung, Gabrielle Paolacci & Stefano Puntoni, *Man Versus Machine: Resisting Automation in Identity-Based Consumer Behavior*, 55 J. MKTG. RES. 818, 819 (2018).

[107] PIERRE BOURDIEU, DISTINCTION: A SOCIAL CRITIQUE OF THE JUDGEMENT OF TASTE 175 (1984).

Not every purchase, of course, is central to identity. Someone who identifies as a skilled baker may reject an automated bread machine because this would replace an expertise that is at the core of their self-definition. But the same self-identified baker may happily adopt a dough-kneading machine that automates an unskilled, repetitive task.[108] Yet even such practical purchases can affirm identity and need not be public to reinforce self-image. Some product selection is indeed done to display an ideal self to the outside world; others are inconspicuous, quietly confirming an internal sense of who we are.[109] Journalist J.B. MacKinnon notes everyday shopping's value in allowing individuals to act in a way that is congruent with their ideal self. As he puts it, "It is this that can make it a thrill to walk to the store to buy your groceries: it is a small enactment of who you know you want to be. It is exactly the way you want to do that particular chore, and you know it, and you know why."[110]

Anticipation. Anticipation—the period between selecting a purchase and consuming it—plays a powerful role in reinforcing shopper autonomy.[111] Consumers describe the delay between purchase and consumption as "a substantive benefit in its own right."[112] The planned vacation, the restaurant reservation, the ingredients for a homemade dinner—all extend pleasure into the future by creating opportunities to anticipate satisfaction.[113]

People derive substantial enjoyment from the period leading up to an experience, with anticipation itself serving as an important source of happiness.[114] Even before we have purchased anything, a pleasurable surge of dopamine floods our brain from window shopping

[108] Leung et al., *supra* note 106, at 820.

[109] Alexander Chernev, Ryan Hamilton & David Gal, *Competing for Consumer Identity: Limits to Self-Expression and the Perils of Lifestyle Branding*, 75 J. MKTG. 66, 67-68 (2011).

[110] J.B. MACKINNON, THE DAY THE WORLD STOPS SHOPPING 246 (2021).

[111] Michel Tuan Pham & Jennifer J. Sun, *On the Experience and Engineering of Consumer Pride, Consumer Excitement, and Consumer Relaxation in the Marketplace*, 96 J. RETAILING 101, 107-09 (2020).

[112] Tunyaporn Vichiengior, Claire Lise-Ackermann & Adrian Palmer, *Consumer Anticipation as a Performative Experience*, 57 EUR. J. MKTG. 3005, 3026 (2023).

[113] *Id.*

[114] *See* Elizabeth W. Dunn, Daniel T. Gilbert & Timothy D. Wilson, *If Money Doesn't Make You Happy, Then You Probably Aren't Spending It Right*, 21 J. CONS. PSYCHOL. 115 (2011) (noting that anticipation contributes significantly to the enjoyment of experiential purchases).

or scrolling Amazon's digital arcades.[115] In our mind, that planned trip to Florida will involve perfect weather and treasured family moments, not rain delays and sibling squabbles. Anticipatory imaginings reinforce our earlier decision to select an item for purchase. In envisioning our future experience of the chosen product, we author a narrative about our volitional acts in the marketplace.

Marketers anticipate this response, crafting idealized images and scenarios that help consumers project themselves into satisfying futures. As one researcher notes, "Those perfectly merchandized, curated collections of products can get our imagination going as we project ourselves in satisfying environments."[116] Such visualization elevates mood and strengthens commitment to purchase decisions.

One's feeling of ownership begins as soon as a purchase decision is made, not upon physically possessing the product. Behavioral studies show that the endowment effect—the tendency to value something more simply because one owns it—is triggered at the moment of shopping, reinforcing the buyer's sense of control and commitment.[117] The buyer has performed their market research, whittled down the possibilities, picked the best product to satisfy their goals, and can now simply wait to enjoy the fruits of their efforts. In this way, the anticipatory period reinforces the shopper's ability to decide things for themselves.

Surprise. Alongside the pleasure of anticipating a consumption experience, shopping sometimes offers an unexpected delight—the thrill of discovery. This pleasure does not stem from fulfilling a known desire but from encountering the unforeseen through one's own actions. Surprise reinforces autonomy by allowing consumers to feel they have uncovered something for themselves, rather than having it handed to them. One business psychologist advises commercial designers to preserve an air of mystery in retail environments, recommending they "[H]ave just enough signage to get people in the

[115] *Why 'Retail Therapy' Makes You Feel Happier*, CLEVELAND CLINIC (Dec. 10, 2024), https://health.clevelandclinic.org/retail-therapy-shopping-compulsion.
[116] *Id.*
[117] *See, e.g.*, Daniel Kahneman, Jack L. Knetsch & Richard H. Thaler, *Experimental Tests of the Endowment Effect and the Coase Theorem*, 98 J. POL. ECON. 1325, 1329-36 (1990) (presenting experiments in which individuals exhibited the endowment effect).

right area without spoiling the joy of finding what they've been hunting for."[118]

Stores like Kohl's, Target, and CVS designate areas as "discovery zones" to appeal to shoppers seeking unexpected finds.[119] Even in luxury settings, clearance racks attract avid shoppers who may not need discounts but relish the pleasure of finding quality at an unexpected price.[120] Online retailers deploy parallel strategies, strategically placing digital coupons or special offers at different points in the user's journey to stimulate surprise and trigger feelings of shopping savvy.[121] The appeal is real: consumers report pride when they uncover an unexpected deal or find a product that exceeds their expectations.[122]

Taken together, these three mechanisms—identity construction, anticipation, and surprise—show that shopping is not merely a means to acquire goods. They reveal that the marketplace, though often associated with manipulation, overload, and asymmetry, can also support self-authorship. Shopping, then, can be a way for individuals to build meaning and exercise agency. Recognizing both shopping's autonomy-enhancing functions and its burdensome realities is critical for understanding what might be lost or gained when consumers begin outsourcing shopping decisions to AI agents.

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[118] *Why We Buy: The Science of Shopping*, PBA HEALTH (Dec. 30, 2021), https://www.pbahealth.com/elements/the-science-behind-consumer-shopping-habits/.

[119] *CVS Pharmacy Unveils Enhanced Customer Experience, New Store Design*, CVS HEALTH (Apr. 20, 2017), https://www.cvshealth.com/news/pharmacy/cvs-pharmacy-unveils-enhanced-customer-experience-new-store-desi.html; Rachel Douglass, *Kohl's Reveals Investment and Expansion Plans for Retail Stores*, FASHIONUNITED (May 27, 2022), https://fashionunited.com/news/retail/kohl-s-reveals-investment-and-expansion-plans-for-retail-stores/2022052747833; *Ulta Beauty at Target Launches in August — Get All the Gorgeous Details*, TARGET (July 2021), https://corporate.target.com/news-features/article/2021/07/ulta-beauty-at-target-launch.

[120] UNDERHILL, supra note 55, at 98.

[121] Rhett Power, *Is Couponing Making a Comeback in Online Shopping?*, FORBES (Dec. 8, 2024), https://www.forbes.com/sites/rhettpower/2024/12/08/is-couponing-making-a-comeback-in-online-shopping/.

[122] Pham & Sun, *supra* note 111, at 104-05; Guy Trebay, *At Forever 21, the Adrenaline Rush Was the Point*, N.Y. TIMES (Mar. 19, 2025).

2. AI Shopping Agents: Identity, Anticipation, and Surprise Revisited

The ability to construct identity, experience anticipation, and enjoy surprises may all be diminished when software makes our commercial choices for us. What appears to be a mere convenience tool may subtly erode agency, reducing shopping to a process stripped of opportunities for personal authorship. Below we revisit the three pillars of shopping autonomy—identity, anticipation, and surprise—exploring how AI agents interact with these core values.

Identity. What does it mean to own a Harley-Davidson motorcycle or a Ralph Lauren shirt if an AI agent chooses it for you? In fashioning our identities through consumption, the act of choosing may matter more than the actual items acquired. For example, Taylor Swift fans curate identities through concert merchandise and carefully chosen outfits that reflect their emotional connection to the artist and their place within the fan community.[123] Delegating shopping choices to algorithms risks undermining the consumer's ability to signal, experiment with, and construct identity.[124]

Although people are likely to prefer algorithmic judgment to the judgment of an external human advisor, they tend to reject such judgment when considering the algorithm's judgment against their own, at least at first.[125] Part of this may stem from simple overconfidence in decision-making capabilities. But it also likely reflects a desire for control over choices, even when exercising such control may produce less than ideal results.[126]

Compounding this risk to identity formation is AI's reliance on past behavior to predict future preferences. To some degree, such reliance makes sense—prior purchases can signal a buyer's perception of value and identification with a particular product.[127] But too much dependence on the past runs the risk of self-reinforcing loops that

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[123] *See, e.g.*, Mattea Kott, *Sociological Swifities: An Ethnographic Analysis of The Eras Tour Movie*, 10 SOCIOLOGICAL IMAGINATION (2025) (documenting how Swift's Eras Tour film cultivated collective identity among attendees through symbolic merchandise, including Taylor-themed attire).

[124] Leung et al., *supra* note 106, at 818.

[125] Logg et al., *supra* note 48, at 97.

[126] Leung et al., *supra* note 106, at 828.

[127] Son K. Lam et al., *Resistance to Brand Switching When a Radically New Brand Is Introduced: A Social Identity Theory Perspective*, 74 J. MKTG. 128, 129 (2010).

undermine consumer sovereignty.[128] Over time, this reliance on historical data could ossify consumer identity, locking individuals into prior tastes and limiting opportunities for self-reinvention. Autonomy implies the ability to change. By reducing both the process and flexibility of choice, AI agents threaten to flatten the dynamic, performative nature of identity construction into an algorithmically fixed profile.

At present, most consumer-facing AI applications are developed by commercial platforms. Thus, their primary goal would likely be to generate data and maximize engagement and sales, not to foster user autonomy or exploration. Without regulatory intervention, there is little reason to expect AI shopping agents to balance platform profitability or market efficiency with design choices that allow consumer identities to evolve.

Anticipation. As explained above, the period between selecting a product and consuming it creates a distinct form of "pre-consumption pleasure."[129] Delegating shopping decisions to AI agents threatens to compress or eliminate this anticipatory window. Automated systems that make purchases on a user's behalf—perhaps even without explicit knowledge or approval—transform shopping from an experience to a mere transaction. Rather than waiting, imagining, or planning, consumers would simply find the goods at their doorstep, ready to be consumed but stripped of the narrative arc that once preceded consumption.

Anticipation involves more than waiting; it reflects a deliberate act of prioritizing, selecting, and envisioning future possibilities. By minimizing or bypassing consumer deliberation, AI shopping agents weaken the opportunity to construct meaning through choice. If the AI system acts before the consumer even knows a decision has been made, it forecloses the opportunity for reflection, expectation, and narrative authorship. What remains is immediate gratification, but at the cost of the autonomy embedded in choosing and looking forward. Here too, firms and developers have little incentive to consistently preserve the psychological richness of anticipation at the expense of frictionless convenience and sales optimization.[130]

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[128] Klaus Wertenbroch et al., *Autonomy in Consumer Choice*, 31 MKTG. LETTERS 429, 432 (2020).

[129] *See* text accompanying note 113.

[130] *See, e.g.*, Will Douglas Heaven, *How AI Can Help Supercharge Creativity*, MIT TECH. REV. (Apr. 10, 2025), https://www.technologyreview.com/2025/04/10/

Surprise. Surprise introduces an element of serendipity that enriches the shopping experience. As discussed, shopping offers the thrill of discovery—the delight of encountering something unexpected or unplanned. The spontaneous find, whether a product or a deal, affirms the shopper's ability to move beyond prescribed paths and predetermined choices, reinforcing one's sense of agency.

AI risks undermining this autonomy-enhancing feature of shopping by narrowing the consumer's exposure to the unexpected. Algorithmic engines built on prior behavior, preferences, and purchases are much less likely to lead to surprises. That is, shopping agents might be so attuned to our needs and past buying behavior that they shrink the commercial field of vision along with opportunities for discovery.

With half of all online commerce taking place on Amazon.com, shoppers already complain about the company's ubiquitous product recommendation engine doing just this. As one observer notes, "The whole technology of recommending to us things that we've already shown an interest in does seem to be reducing our exposure to entirely new things via that most delightful serendipity."[131] Minimizing the opportunities for chance encounters could diminish consumer satisfaction, stripping the pleasure of the unexpected from our commercial forays.[132]

To be sure, preserving the autonomy benefits of discovery in an age of algorithmic curation is still possible. In domains ranging from scientific discovery to music composition, users have been using AI agents to inject serendipity to support creative innovations.[133] Shopping platforms have the ability to introduce deliberate variability into their recommendations or balance collaborative filtering with

1114256/ai-creativity-art-collaboration-music/ (exploring adverse cognitive impacts of AI tools on creative ideation).

[131] Tim Worstall, *The Absence of Serendipity, or, Why I Hate Shopping at Amazon*, FORBES (Nov. 19, 2013). *See also* Wertenbroch et al., *supra* note 128, at 429 (discussing a self-reported loss of agency thanks to personalized algorithms even as these algorithms help consumers find products).

[132] *See* Camille Grange, Izak Benbasat & Andrew Burton-Jones, *With a Little Help From My Friends: Cultivating Serendipity in Online Shopping Environments*, 56 INFORMATION & MGMT. 225, 225 (2019); Cheng Yi, Zhenhui Jiang, & Izak Benbasat, *Designing for Diagnosticity and Serendipity: An Investigation of Social Product-Search Mechanisms*, 28 INF. SYS. RES. 413 (2017).

[133] Heaven, *supra* note 130 (discussing how AI agents can augment, rather than replace, human creativity in the domain of creative arts).

input from differently-situated users. But, as described in Part III, regulatory safeguards may be necessary to ensure that surprise remains part of the shopping experience.[134]

3. Delegating Choice and Consumer Agency

Beyond these specific autonomy-enhancing functions of shopping, AI shopping agents raise broader questions about what it means to delegate choice. At its core, autonomy entails the capacity to consciously evolve: to reflect, revise, and redirect one's preferences over time. But as we have seen in the context of identity, AI shopping agents risk freezing consumers within algorithmic profiles. In this sense, over-personalization—especially if built on past behaviors and decisions—risks constraining the evolving self. [135]

Of course, not all delegation undermines autonomy. Some forms of delegation are benign, even liberating. We routinely cede control in exchange for convenience or efficiency. Online users disclose personal information, relinquishing control over how we are profiled, in return for more tailored product recommendations. We let platforms like Spotify or Netflix curate what we hear or watch, shaping leisure without active choice. Along similar lines, we entrust smart home systems to learn and adjust to our habits—heating the house before we arrive, dimming lights, or locking doors. Drivers and pilots cede control to autonomous systems for the sake of safety, convenience, and efficiency.[136] Sometimes, choosing not to know—or choosing to let an external system decide—can itself be an expression of agency.[137]

At the same time, some tradeoffs implicate autonomy interests more than others. As Michal Gal remarks, "There are spheres in life in which choosing is more important than arriving at the optimal outcome."[138] Shopping is sometimes such a domain: when

[134] *See infra* Part III.B.1.

[135] Wertenbroch et al., *supra* note 131, at 432 ("Consumers become less likely to be exposed to options and content that does not correspond to their revealed (first-order) preferences, depriving them of opportunities to change these preferences and choose something else (enacting their second-order preferences).")

[136] Cassandra Burke Robertson, *Litigating Partial Autonomy*, 109 IOWA L. REV. 1655, 1676 (2024).

[137] *See* Ralph Hertwig & Christoph Engel, *Homo Ignorans: Deliberately Choosing Not to Know*, 11 PERSP. ON PSYCH. SCI. 359, 365 (2016).

[138] Michael S. Gal. *Algorithmic Challenges to Autonomous Choice*, 25 MICH. TECH. L. REV. 59, 90 (2019).

consumption decisions intertwine with identity, aspiration, or meaning, the process of choosing can transcend material acquisition. If a marketing technique threatens consumers' sense of self-authorship, consumers will adjust their actions accordingly. To wit, after learning that their impending shopping choices became predictable from their previously measured preferences, research subjects altered their behavior to reassert their autonomy, choosing less-preferred options.[139]

A consumer presented with decisions as a fait accompli, with no insight into the agent's reasoning or methods, is more likely to experience disempowerment. Delegation erodes autonomy most acutely when it renders the delegate's actions opaque and incomprehensible to the user. AI shopping agents might exemplify this risk. If their designers are unable to fully explain their pathways and outputs, these agents will erode the aspects of identity-building, anticipation, and discovery in shopping that once provided a sense of personal control.[140]

These concerns echo long-standing cultural anxieties: from Forster's *The Machine Stops*[141] and Huxley's *Brave New World*[142] to contemporary dystopias like *Black Mirror*,[143] narratives of technological overreach repeatedly warn that convenience and stability can come at the expense of freedom, desire, and self-determination. Automating shopping will not necessarily fulfill these dystopian prophecies. Yet it will alter how we relate to choice, control, and consumption in subtle but significant ways. If AI systems remove the act of choosing—presenting purchases not as an opportunity but as an

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[139] R.Y. Schrift et al., *The Dark Side of Microtargeting: Predicting Consumers' Preferences Threatens Their Sense of Free Will*, *in* ADVANCES IN CONSUMER RESEARCH 254, 254-58 (R. Bagchi, L. Block & L. Lee eds., 2019).

[140] *See* Cyphert et. al., *supra* note 103, at 302-03 ("Even for technical experts who understand how the algorithms perform, 'explainability'—or how the algorithm arrives at its output—is an elusive goal in the field of AI."); Melissa Heikkila, *Nobody Knows How AI Works*, MIT TECH. REV. (Mar. 5, 2024).

[141] E.M. Forster, *The Machine Stops*, *in* COLLECTED SHORT STORIES OF E.M. FORSTER (1947) (depicting a society that lives underground, utterly dependent on a centralized Machine that fulfills every need while extinguishing human connection and agency).

[142] ALDOUS HUXLEY, BRAVE NEW WORLD (1932).

[143] *Black Mirror: Nosedive* (Netflix Oct. 21, 2016) (portraying the risk that algorithmic systems, social credit scores, and immersive technologies quietly erode human autonomy beneath a veneer of convenience and personalization).

outcome—we risk losing a foundational sense of authorship over our preferences, our identities, and our participation in the marketplace.

C. The Social Fabric of Shopping

Psychologists say that if they had to summarize the science of happiness in a single word, that word would be "social."[144] Social connection is a cornerstone of human flourishing, operating across a spectrum of interactions that collectively enrich our lives.[145] Relationships and social ties provide emotional security, meaning, and resilience. Incidental interactions are also associated with pleasure and a sense of belonging, contributing to overall well-being.[146] Research consistently shows that people who are socially active enjoy better physical health, greater psychological well-being, and longer lives.[147] These connections—whether profound or fleeting—satisfy our evolutionary need for social embeddedness. They enable us to share experiences, grow through knowledge exchange, and construct meaning together.[148]

Beyond preference satisfaction or autonomy, shopping is also a communal activity. Whether browsing a mall with friends, chatting with a salesperson, or watching influencer unboxing videos, shopping

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[144] *The Science Behind the Smile*, HARV. BUS. REV. (Jan. 2012), https://hbr.org/2012/01/the-science-behind-the-smile (quoting professor Daniel Gilbert, a famous happiness researcher, saying "If I had to summarize all the scientific literature on the causes of human happiness in one word, that word would be 'social'.").

[145] MARTIN E.P. SELIGMAN, FLOURISH: A VISIONARY NEW UNDERSTANDING OF HAPPINESS AND WELL-BEING 16 (2011) (defining 'positive relationships' as one of the five key pillars of well-being).

[146] *See, e.g.*, Gillian M. Sandstrom & Elizabeth W. Dunn, *Is Efficiency Overrated? Minimal Social Interactions Lead to Belonging and Positive Affect*, 5 SOC. PSYCH. & PERSONALITY SCI. 437, 439 (2014) (finding that short interactions with strangers, such as a barista, can boost happiness).

[147] *See, e.g.*, Yang Claire Yang et al., *Social Relationships and Physiological Determinants of Longevity Across the Human Life Span*, 113 PROC. NAT'L ACAD. SCI. U.S. 578 (2016); Teresa E. Seeman et al., *Social Relationships, Social Support, and Patterns of Cognitive Aging in Healthy, High-Functioning Older Adults: MacArthur Studies of Successful Aging*, 20 HEALTH PSYCHOL. 243 (2001).

[148] *See, e.g.*, Robin I.M. Dunbar, *The Social Brain Hypothesis*, 6 EVOL. ANTHROPOL. 178 (1998) (evolutionary need for social embeddedness); NICHOLAS A. CHRISTAKIS & JAMES H. FOWLER, CONNECTED: THE SURPRISING POWER OF OUR SOCIAL NETWORKS AND HOW THEY SHAPE OUR LIVES (2011) (sharing experiences and knowledge exchange); JEROME BRUNER, ACTS OF MEANING (1990) (constructing meaning together).

fosters interaction and shared experience. In the ensuing discussion, we focus on two relational functions: shopping with others and shopping for others. Together, these functions reveal shopping's dual role as both a site of direct communal participation and a medium for expressing imagined care. Throughout this analysis, we consider what may be lost—psychologically, relationally, and culturally—if we outsource consumption to machines.

1. Shopping with People

Shopping is embedded in physical spaces, social rituals, and communal experiences. Shopping often occurs in shared affinity spaces, requiring interactions with others—from like-minded fellow shoppers to salespersons who answer questions and offer recommendations.[149] Even in stores with self-checkout stations, shoppers navigate shared physical spaces, encountering other customers and employees stocking shelves.

In part because of these interactions, some describe shopping as a form of leisure or escape rather than a grimly utilitarian task.[150] Perhaps counterintuitively, the mere presence of in-store crowds can enhance shopping satisfaction.[151] At a time when scholars and public health officials warn of rising loneliness and people (particularly younger demographics) spend more time on devices than face-to-face, shopping stands out as an everyday opportunity for in-person interaction.[152]

Retailers recognize this social function and design shopping environments to foster interaction, engagement, and pleasure.[153] Some

[149] Even seemingly minor exchanges—with store clerks or fellow shoppers—help weave a fabric of belonging that combats isolation and boosts happiness. *See* Gillian M. Sandstrom & Elizabeth W. Dunn, *Social Interactions and Well-Being: The Surprising Power of Weak Ties*, 6 PERSONALITY & SOCIAL PSYCHOL. BULL. 910 (2014) (finding that even brief, casual interactions enhance feelings of belonging and well-being).

[150] DANIEL MILLER, A THEORY OF SHOPPING 69 (1998).

[151] S.A. Eroglu, K. Machleit & T.F. Barr, *Perceived Retail Crowding and Shopping Satisfaction: The Role of Shopping Values*, 58 J. BUS. RES. 1146, 1146 (2005).

[152] Ashley Ahn, *Malls Have Rebounded Thanks to an Unlikely Source: Gen Z*, L.A. TIMES (Jan. 19, 2024); Marisa Gerber, *Americans Face an Epidemic of Loneliness. For Some, Supermarket Self-Checkouts Make It Worse*, L.A. TIMES (Sept. 7, 2023).

[153] *See, e.g.*, Jeremy Ainsworth & Jayme Foster, *Comfort in Brick and Mortar Shopping Experiences: Examining Antecedents and Consequences of Comfortable Retail Experiences*, 35 J. RETAILING & CONS. SERV. 27, 28 (2017) (noting that

retail establishments are so identified with enjoyable social environments that people routinely go there without the intention of shopping. Shoe stores install climbing walls,[154] IKEA offers sprawling, maze-like showrooms,[155] and bookstores invite browsing and lingering, often with on-site cafés or bakeries.[156] Perhaps the apotheosis of retail sociality is the shopping mall, with its wide corridors, communal food courts, and staged gathering spaces designed to encourage lingering and shared encounters.[157] Malls continue to evolve, remaining destinations for customers seeking in-person gatherings and dining experiences, not merely retail transactions.[158]

To be sure, retail environments vary widely. Buying a necklace on Rodeo Drive differs from picking up dish soap at Walmart. Yet many if not most shopping spaces attend to the hedonic and social dimensions of consumption, designing atmospheres and inventories to engage our senses and cultivate prosocial moods conducive to buying.[159] Even purchasing mundane items can be a social activity—"a shared experience that provides people with a common ground to communicate and exchange information and opinions about products, brands, and retail experiences."[160]

Online shopping lacks the same opportunities for direct interaction with employees and fellow customers. Yet even these solitary journeys retain social traces. Over forty percent of Generation

"marketers today tend to consider shopping to be a multisensory 'experience' rather than a simple acquisition task.").

[154] Mark J. Arnold & Kristy E. Reynolds, *Hedonic Shopping Motivations*, 79 J. RETAILING 77, 77 (2003).

[155] Prince Mukherjee, *How IKEA Has Mastered Gruen Effect*, MEDIUM (Dec. 19, 2022), https://medium.com/design-bootcamp/how-ikea-has-mastered-gruen-effect-c51b0c3b6d80.

[156] Ezra Klein, *How Barnes & Noble Came Back from Near Death*, N.Y. TIMES (Jan. 28, 2023) (describing the allure of Barnes & Noble as "a place to sit and play and exist among books").

[157] *See, e.g.*, Aaron Short, *How Malls Became Cool Again*, BUS. INSIDER (Jan. 21, 2025), https://www.businessinsider.com/how-malls-became-cool-again-thanks-to-gen-z-2025-1 (describing the mall as a place where people, and particularly young choppers, can test their personas, experience authenticity, and interact with others).

[158] Ahn, *supra* note 152.

[159] Ainsworth & Foster, *supra* note 153, at 28; Arnold & Reynolds, *supra* note 154, at 77.

[160] Lee & Bottger, *supra* note 6, at 45.

Z customers begin their commercial searches on social media,[161] perhaps out of a desire for sociality alongside product discovery. Knowing this, online product reviewers often deploy playful humor, aiming more to tickle fellow shoppers than to impart critical information.[162]

Digital fora allow consumers to vicariously experience others' shopping activities.[163] The popularity of unboxing videos testifies to the stimulative power of remote, communal shopping experiences. Watching someone else exercise their consumptive choices can trigger a salutary emotional response,[164] while influencer promotions attract audiences for their perceived authenticity and relational meaning.[165] People consult unboxing videos and influencer posts not merely to gather product information, but to participate in a shared entertainment experience.[166]

AI threatens to shrink these avenues for social connection. With digital agents executing transactions on our behalf, fewer opportunities will remain to shop alongside others, whether in physical or online spaces. Traveling to brick-and-mortar retailers to explore options with other human shoppers can become harder to justify once an AI agent efficiently reviews, compares, and optimizes purchases. Similarly, the social aspects of online reviewing may fade. Humorous or emotional product write-ups will find smaller audiences when the AI agent, not a human reader, is the primary focus. Overall, commercial journeys will become more isolated as retailers recalibrate their selling environments and marketing strategies to appeal to an AI audience of one.

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[161] Charles Nicholls, *The Shift to Social Shopping and What It Means for Brands*, FORBES (Oct. 2, 2024).

[162] A. Peter McGraw, Caleb Warren & Christina Kan, *Humorous Complaining*, 41 J. CONS. RES. 1153, 1154-56 (2014).

[163] *See* Alexandra Jones, *How I Became Obsessed with Reading Online Reviews*, REFINERY29 (June 2, 2020).

[164] Sharif Mowlabocus, *"Let's Get This Thing Open": The Pleasures of Unboxing Videos*, 23 EUR. J. CULTURAL STUD. 564, 569-71 (2020).

[165] EMILY HURD, THE INFLUENCER INDUSTRY: THE QUEST FOR AUTHENTICITY ON SOCIAL MEDIA 10 (2023).

[166] Rhonwyn K. Vaudrey, *A Practice Unpacked: Unboxing as Consumption Practice*, 145 J. BUS. RES. 843, 847 (2022).

2. Shopping for People

Even when we shop alone, we rarely shop solely for ourselves. Many purchases—whether a household staple, a gift, or a symbolic indulgence—carry traces of our relationships with others. Shopping often serves as a relational act, shaped by the imagined reactions of those we love, care for, or wish to impress.[167] As Miller puts it, "What the shopper desires above all, is for others to want and appreciate what she brings."[168]

Whereas shopping is often portrayed in popular culture as anti-social self-indulgence,[169] people see themselves fulfilling a role—perhaps as the supportive partner, thoughtful gift-giver, or protective parent—when making purchasing decisions. Through this lens, shopping carries social obligations alongside personal enjoyment and hedonic value.[170] Even buying things for oneself still involves conceptualizing how a purchase matches larger community values and sentiment. Consider, for example, recent controversies over particular brands' commitment (or lack of commitment) to inclusion (*e.g.*, Abercrombie & Fitch, Bud Light, Victoria's Secret)[171] or political affiliation (*e.g.*, Goya Foods, Tesla).[172]

While the rational choice model depicts shopping as an individual act, many consumer decisions remain fundamentally relational. A prominent example is gift-giving. Each year, American consumers spend hundreds of billions of dollars on gifts, with retailers centering

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[167] *See* MILLER, *supra* note 150, at 3 ("[Y]our shopping is dominated by your imagination of others, of what they desire of you and their response to you.").

[168] *Id*. at 149.

[169] Popular novels from FIGHT CLUB to CONFESSIONS OF A SHOPAHOLIC lament solipsistic consumerist lifestyles while news stories warn of insatiable shoppers ruining their credit and falling prey to scams. *See id.* at 68.

[170] Arnold & Reynolds, *supra* note 154, at 81; Barry J. Babin, William R. Darden & Mitch Griffin, *Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value*, 20 J. CONS. RES. 644, 644 (1994).

[171] *See, e.g.*, Jura Liaukonyte, Anna Tuchman & Xinrong Zhu, *Lessons from the Bud Light Boycott, One Year Later*, HARV. BUS. REV. (Mar. 20, 2024), https://hbr.org/2024/03/lessons-from-the-bud-light-boycott-one-year-later (analyzing the Bud Light boycott's impact and highlighting factors that make brands susceptible to backlash when engaging in sociopolitical issues).

[172] Joseph Bernstein, *A Culture War on Wheels*, N.Y. TIMES (July 22, 2024), https://www.nytimes.com/2024/07/22/style/elon-musk-tesla-cybertruck.html; Cache McClay, *Goya Foods: Hispanic Brand Faces Boycott for Praising Trump*, BBC (July 10, 2020), https://www.bbc.com/news/world-us-canada-53371392.

promotional campaigns around holidays like Christmas and Valentine's Day.[173] Buying a gift involves anticipating another's preferences and navigating commercial options to satisfy them. The recipient, in turn, will assess not only whether the gift suits their tastes, but also how well the giver understood them and how much effort the giver invested in choosing it.[174]

Beyond gifts, everyday shopping decisions also offer ways to imagine and enact relationships with others. Virtually all shopping—not just gift-giving—can be cast as a ritual act, elevating consumption beyond satisfying immediate material needs into something more transcendent. Miller illustrates this through examples from late 1990s London, like a couple that understands their selection and purchase of an IKEA sofa as an enactment of their love for each other and a woman that views satisfying her family's food requests as an enjoyable manifestation of her duties as wife and mother.[175] Like other rituals, shopping involves the sacrifice of present resources (as the purchaser surrenders time and money) as part of a devotional act for the future good of others.[176]

This ritual dimension extends into broader consumer culture, where traditions are commercialized and imbued with shared social meaning. Retailers commercialize seasonal traditions—whether Starbucks' fall drinks or Coca-Cola's holiday campaigns—inviting shoppers to participate in shared cultural rituals. Sports teams nurture fan ceremonies like tailgating and donning particular attire.[177] The cyclical nature of shopping—seasonal sales, new collections, upgrade cycles—can create rhythm and shared experience in daily life, somewhat similar to how religious calendars organize time around sacred observances. According to this view, shopping's ritualistic aspects allow it to serve as a conduit for social values, passing on what we consider meaningful to future generations.

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[173] Julian Givi, Laura Birg, Tina M. Lowrey & Jeff Galak, *An Integrative Review of Gift-Giving Research in Consumer Behavior and Marketing*, 33 J. CONS. PSYCH. 529, 529-30 (2022).

[174] Na Kyong Hyun, Yoobin Park & Sun W. Park, *Narcissism and Gift Giving: Not Every Gift Is for Others*, 86 PERSONALITY & INDIVIDUAL DIFFERENCES, 47, 50 (2016).

[175] MILLER, *supra* note 150, at 21, 28-29.

[176] *Id*. at 78.

[177] Tonya Williams Bradford & John F. Sherry, Jr., *How Marketers and Consumers Synchronize Temporal Modes to Cocreate Ritual Vitality*, 52 J. ACAD. MKTG. SCI. 554, 554-55 (2024).

Beyond symbolic rituals and cultural participation, shopping also serves as a site for practicing relational virtues. By meeting an external standard—whether for savvy bargain hunting, thoughtful gift-giving, or prosocial and pro-environmental behavior toward fellow shoppers and the planet—commercial environments offer arenas for self-validation according to community norms.[178] Take thrift—not just the act of saving money, but the expression of restraint, diligence, and care for one's household or social circle.[179] Even casual bargain hunting—clipping coupons, sharing discounts, boasting about deals—functions as a social ritual, transforming indulgent consumption into a moral practice and reinforcing thrift as a communal norm.[180]

In fact, those who display shopping thrift are considered virtuous. As one scholar concluded after performing research on shopping behaviors in Indian bazaars, "thriftiness . . . is generally endowed with dignity, even sanctity."[181] And for those not exhibiting thrift, "overpaying as the result of not bargaining with sufficient savvy is seen as a kind of moral flaw, a wastefulness bordering on sinfulness."[182]

This dynamic is not confined to any one market or culture. In a way, most shopping experiences contain some element of thrift—understood broadly as the desire to make purchases that reflect care, judgment, and value. Eight out of ten shoppers report bragging to friends about the bargains they find.[183] Those who clip coupons and hunt for discounts signal their savvy. But even those who pay more can frame their decision as prudent—emphasizing quality, durability, or long-term savings. In either case, shoppers justify their choices as smart and responsible.[184] Again, this demonstrates that shopping is about more than satisfying immediate desires—it instructs and socially signals proper behavior.[185]

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[178] Pham & Sun, *supra* note 111, at 103.

[179] MILLER, *supra* note 150, at 56; Lee & Bottger, *supra* note 6, at 46-47; Andy Rotman, *Bargaining Justice: Negotiating Law in an Indian Bazaar*, 45 SEATTLE U. L. REV. 131, 147–48 (2021).

[180] MILLER, *supra* note 150, at 104.

[181] Andy Rotman, *Bargaining Justice: Negotiating Law in an Indian Bazaar*, 45 SEATTLE U. L. REV. 131, 147–48 (2021).

[182] *Id*. at 148.

[183] *Americans Spend More Than Two Full Days Online Shopping per Year, New Study Reveals*, N.Y. POST, Aug. 7, 2024.

[184] MILLER, *supra* note 150, at 56.

[185] *Id*. at 104.

This brings us to the potential consequences of delegating buying decisions to non-humans on these three key themes of gift-giving, communal rituals, and thrift. Consider first the practice of gift-giving. Gifts selected by AI agents may be materially superior to human-chosen gifts. As established, AI agents can evaluate thousands of options, filtering for quality, price, and fit, unencumbered by the cognitive shortcuts or biases that might limit a human gift-giver.[186]

But on another level, these algorithmically selected gifts are markedly inferior. Recipients often view sacrifice as value: the effort, attention, and care expended by the giver constitute part of the gift's meaning.[187] If, instead of the human giver, an AI performs the evaluative work, that non-monetary sacrifice disappears. For some, a gift that does not demonstrate the giver's own thought and effort ceases to be a true gift at all.[188]

Next, we move to consider communal rituals. Here, we established that shopping is not only an individual act but a way of participating in shared cultural practices. However, delegating purchases to AI agents risks severing consumers from this participatory process. If AI orders the seasonal drink, selects holiday decorations, or curates the content for a religious or cultural celebration, the consumer's role shifts from intentional participant to passive recipient. The ritual remains materially intact but relationally hollowed—automated consumption replacing active engagement.

More subtly, AI delegation may also reduce opportunities to learn from others. Shopping exposes consumers to diverse preferences, styles, and practices—both through observing others' choices and imagining different cultural scripts. An AI agent designed to optimize for individual preferences risks creating a "perfect echo chamber,"[189] narrowing exposure to alternative tastes and communal trends. True,

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[186] For example, people tend to err in their predictions of others' preferences, often substituting their own preferences for that of the recipient. *See* Jeff Galak, Julian Givi & Elanor F. Williams, *Why Certain Gifts Are Great to Give but Not to Get: A Framework for Understanding Errors in Gift Giving*, 25 CURRENT DIRECTIONS IN PSYCH. SCI. 380, 380 (2016).

[187] Charles S. Areni, Pamela Kiecker & Kay M. Palan, *Is It Better to Give Than to Receive? Exploring Gender Differences in the Meaning of Memorable Gifts*, 15 PSYCH. & MKTG. 81, 85 (1998).

[188] Kate Murphy, *Unpacking the Psychology of Gift-Giving*, N.Y. TIMES (Nov. 23, 2022), https://www.nytimes.com/2022/11/18/style/holiday-best-gift-stress.html ("Bad gifts make you wonder if the giver knows you at all.").

[189] ETHAN MOLLICK, CO-INTELLIGENCE: LIVING AND WORKING WITH AI 90 (2024).

AI's perfection might be good for saving money or optimizing return on investment. But it could also make us less understanding of others and less prone to learn from them.

Finally, outsourcing product selection to AI agents could also reconfigure the relationship between shopping and thrift. On its face, a virtual agent might model thrift more efficiently than a human shopper. After all, the agent can better reconcile cost, quality, and long-term value in a way that sticking with human-centered buying may appear profligate by comparison.

Nonetheless, outsourcing shopping to algorithms deprives consumers of their chief means of demonstrating thrift to others. Part of the pride consumers may have in their shopping behaviors has to do with perceived difficulty.[190] Successful navigation of the marketplace means resisting temptation, being vigilant, and exercising judgment. It is unlikely these feelings of pride will transfer if users take an increasingly passive role and delegate the entire purchasing journey to digital tools. Such a move risks making shopping strictly instrumental, eliminating the effort, discernment, and intentionality that once signaled reliability, sobriety, or care.

Closely related to thrift's moral function is its pedagogical role. Shopping frequently offers a low-stakes terrain for cultivating market literacy; it can teach consumers to discern misleading claims, evaluate offers, and exercise prudent judgment.[191] Outsourcing purchases to AI risks hollowing out this pedagogical function. If an algorithm makes our purchases, it will leave little opportunity for consumers to understand or learn from their marketplace failures.[192]

Delegating authority to AI agents may optimize purchase decisions, but at a cost: it risks eroding our deliberative and critical faculties. Regular reliance on AI can dull problem-solving skills and

[190] Pham & Sun, *supra* note 111, at 104.

[191] Along these lines, consumer protection laws are not intended to strip every potential misleading sales technique or confusing marketing message from our surroundings. A prominent example is puffery—exaggerated promotional statements or claims that a reasonable consumer would not interpret as literal fact—which the law does not ban. *See* David A. Hoffman, *The Best Puffery Article Ever*, 91 IOWA L. REV. 1395, 1400 (2006).

[192] Myrthe Blosser & Andrea Weihrauch, *A Consumer Perspective of the AI Certification – the Current Certification Landscape, Consumer Approval and Directions for Future Research*, 58 EUROPEAN J. MKTG. 441, 443 (2024); Michal S. Gal, *Algorithmic Challenges to Autonomous Choice*, 25 MICH. TECH. L. REV. 59, 83 (2018).

reduce the kind of market literacy that comes from navigating tradeoffs, comparing options, and exercising judgment. Over time, this may undermine not just consumer competence but civic reasoning more broadly.[193] Instead of having the experience of saving money, AI shopping simply saves money.

* * *

Shopping serves multiple purposes. Ideally, it gives consumers the means to satisfy their preferences, thereby incentivizing greater market competition on quality and price. Shopping can also enhance individual autonomy through opportunities for anticipation, discovery, and identity formation. It is furthermore one of the primary ways that we negotiate our most important relationships and express care and concern for others. Each of these functions—economic discipline, personal autonomy, and relational meaning—raises distinct regulatory challenges. Part III takes up these challenges, asking what legal and policy tools might preserve these functions without sacrificing the efficiency gains of AI delegation.

III. LAW IN THE AGE OF AI SHOPPING AGENTS

Part II showed that shopping is far more than a tool for satisfying consumer preferences—it is a practice rich with economic, psychological, and social significance. These insights complicate the overly reductive narrative of AI agents merely enhancing efficiency by reducing search costs and automating undesirable tasks. Left unchecked, algorithmic delegation threatens to erode the very functions that make shopping meaningful—functions often overlooked by market incentives. Table 1 captures the major challenges and opportunities that AI shopping agents present.

[193] *See* Francesca L. Procaccini, *Equal Speech Protection*, 108 VA. L. REV. 353, 435 (2022) (discussing the relevance of commercial speech to political and social life). *See also* Va. State Pharmacy Bd. v. Va. Citizens Consumer Council, 425 U.S. 748, 760 (1976) (noting the social importance of both political and commercial speech).

Table 1: Shopping – Functions, Risks, and Safeguards

Dimension	Function	Risks	Safeguards
Market Discipline	Preference satisfaction; competition	Preference distortion; platform bias	Align agent and consumer incentives; transparency; accountability
Autonomy	Identity construction; anticipation; discovery	Ossification of identity; reduction in pre-consumption pleasure; reduced exposure to novelty	Design features to allow for customization, anticipation, and exploration
Social	Human connection; shared cultural participation; transmission of relational virtues	Loneliness; reduced meaning; loss of critical thinking skills	Socially sourced recommendations; preserving space for thrift's moral and pedagogical dimensions

With this in mind, Part III shifts from diagnosis to prescription. It outlines a sequence of initiatives aimed at harnessing the primary benefits of AI agents—convenience, scale, and optimization—while safeguarding critical normative values. Our approach recognizes that law must not only respond to new risks but also proactively shape the design and governance of AI agents to align with social values, consumer autonomy, and market integrity.

Before delving into the details, three interrelated clarifications are due. First, the proposals offered below, though not exhaustive, establish a foundation for future law and policy conversations. Inevitably, the challenge will be operationalizing these ideas in practice. As we enter this age of algorithmic delegation, the devil truly will be in the details.

Second, our analysis adopts an ex ante perspective, focusing on how legal and policy tools can shape the architecture of general-purpose AI shopping agents before harm occurs. This Article does not engage with ex post remedies such as redress mechanisms or agent

accountability,[194] nor does it address retailer-specific AI systems that operate within closed commercial ecosystems.[195] Both issues raise important legal questions—particularly around consumer protection and competition—but lie beyond the scope of this Article.

Finally, although our proposals are organized according to the normative values at stake—rational choice, autonomy, and social connection—they span a broad regulatory spectrum. Some rely on minimal intervention, leveraging market incentives and soft design nudges. Others involve more intrusive actions, including legal mandates, certification regimes, or outright prohibitions. By aligning regulatory tools with the specific risks posed by automated shopping, we aim to offer a targeted and proportionate response. Yet many of these proposals cut across multiple normative concerns, reflecting the complex entanglements of real-world shopping behavior.

A. Facilitating Rational Consumer Choice

The clearest potential benefit of automated shopping is enhanced preference satisfaction.[196] By canvassing enormous amounts of product and market information and avoiding the cognitive shortcomings of human shoppers, digital agents can do a better job of satisfying consumer preferences than the status quo. But without adequate guardrails—such as consumer protection and fair competition measures—AI shopping agents will fail to direct consumers to better value.

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[194] Whether and how to impose common law duties on firms for the actions of their AI agents is a difficult legal question. Employing agency law to AI agents ex post may seem intuitively appealing, but the analogy breaks down under scrutiny. Traditional agency doctrine presumes human agents capable of intent, judgment, and fiduciary accountability, while AI agents operate through probabilistic inference and lack the mental state, ability to consent, and supervision structures on which agency law depends. *See, e.g.*, Desai & Riedl, *supra* note 9, at 14-19 (explaining why agency law is an improper legal framework for governing AI agents); Kolt, *supra* note 9, at 30-37 (same).

[195] For instance, a recent case involved Air Canada's AI chatbot, which promised a discount the airline later refused to honor. A tribunal ultimately held the airline liable, signaling that firms may be responsible for representations made by their autonomous systems. *See* Moffatt v. Air Canada, 2024 BCCRT 149, https://decisions.civilresolutionbc.ca/crt/crtd/en/item/525448/index.do.

[196] *See supra* Sections I.B, I.C, and II.A.

1. A Consumer Protection Perspective

AI agents may appear to act in the user's interest while, in fact, advancing the goals of their corporate creators. To illustrate, consider a shopping chatbot that pledges to comprehensively survey all available commercial listings but, unbeknownst to the user, privileges its corporate parent's products in its recommendations. As one concrete example of that concern, Amazon's Alexa voice assistant recommended Amazon's Choice and "sponsored" products without disclosing that status to users.[197]

To genuinely facilitate preference satisfaction and promote competition, consumers will need to be able to trust their agent's recommendations. An AI tool that selects goods and services from a sponsoring business rather than recommending the best product to fit the consumer's preferences runs afoul of its commitment to users. Viewed as consumer-facing products, consumer protection law principles could inform the regulation of AI shopping tools.

Generally speaking, economists categorize goods into three types: search goods, whose quality can be evaluated before purchase (e.g., the design of greeting cards); experience goods, assessed upon use (e.g., the taste of canned tuna); and credence goods, whose quality remains difficult to judge even after repeated use (e.g., whether food is organic or an electronic device energy efficient).[198] AI shopping agents could fall in the last category. Because their functioning is opaque, adaptive, and shaped by inaccessible data and algorithms, consumers cannot reliably evaluate their quality or trustworthiness, even over time.[199] In fact, AI agents may be even more problematic than traditional credence goods because they can excel at justifying their

[197] Blut et al., *supra* note 48, at 310. When asked to search for a product, voice shoppers typically recommend a single item, and tests show that requests for alternative options are rebuffed. Noga Blickstein Shchory & Michal S. Gal, *Voice Shoppers: From Information Gaps to Choice Gaps in Consumer Markets*, 88 BROOK. L. REV. 111, 120 (2022).

[198] Phillip Nelson, *Information and Consumer Behaviour*, 78 J. POL. ECON. 311, 327 (1970).

[199] *See* Richard A. Posner, *An Economic Approach to the Law of Evidence*, 51 STAN. L. REV. 1477, 1489 (1999) ("A good is a credence good if the consumer cannot readily determine its quality by inspection or even use, so that he has to take its quality 'on faith.'").

own wrong answers,[200] and their creators can make vague claims (such as "AI agent will optimize your shopping") that are hard to verify.

Sales involving credence attributes warrant stronger regulatory guardrails than sales involving other attributes (which consumers can more easily verify or assess). Consumers lack a way to evaluate the performance of credence products, potentially allowing producers to get away with false claims or mediocre results—and creating a risk of exploitation due to information asymmetry.[201] Even in competitive markets, consumers cannot detect low-quality performance in credence goods—and therefore cannot reward good providers or penalize bad ones.[202]

When it comes to credence goods, therefore, consumers need regulatory support mandating the provision of helpful product information. One familiar remedy is to craft an outside mechanism for verifying the seller's representations, such as implementing certification programs by an intermediary.[203] For example, the U.S. Department of Energy's Energy Star label certifies that products like dishwashers and refrigerators meet energy and water conservation standards, helping consumers assess a quality—energy efficiency—they otherwise could not evaluate on their own.[204] Along similar lines, the U.S. Department of Agriculture sets standards for organic products, allowing certified purveyors to place the USDA organic seal on their packaging.[205]

Voluntary certification pathways for AI systems are already emerging and could be extended to shopping agents. Some firms, such as ORCAA, offer third-party audits to assess whether AI tools operate

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[200] MOLLICK, *supra* note 189, at 53.

[201] Lee Goldman, *The World's Best Article on Competitor Suits for False Advertising*, 45 FLA. L. REV. 487, 497-501 (1993); Sivaramjani Thambisetty, *Patents as Credence Goods*, 27 OXFORD J. LEGAL STUD. 707, 726-27 (2007).

[202] Loukas Balafoutas & Rudolph Kerschbamer, *Credence Goods in the Literature: What the Last Fifteen Years Have Taught Us About Fraud, Incentives, and the Role of Institutions*, 26 J. BEHAV. & EXP. FINANCE 1, 10 (2020) ("the impact of competition on fraud in credence goods markets is at best ambiguous").

[203] Luca Enriques et. al., *Green Gatekeepers*, 109 MINN. L. REV. 609, 626-27 (2024).

[204] *About Energy Star*, ENERGYSTAR, https://www.energystar.gov/about (last visited June 16, 2025). The Energy Star program has existed since 1992, but the Trump administration is trying to end it. *See* Elizabeth Kolbert, *Why End Energy Star?*, NEW YORKER, May 12, 2025.

[205] *Organic Certification*, USDA, https://www.ams.usda.gov/services/organic-certification/certification (last visited June 16, 2025).

in a fair, unbiased, or trustworthy manner.[206] Others—both consultancies and nonprofits—provide similar services aimed at evaluating algorithmic performance and risk.[207] To incentivize firms' participation in such programs, lawmakers could condition liability protections or tax benefits on meeting specific certification standards.[208]

Another consumer protection regulatory tool is disclosure—envisioned here as "algorithmic nutrition labels." Well-crafted disclosures can help turn a credence attribute into a more verifiable, search-like attribute.[209] For example, food safety laws require producers to disclose nutritional content and serving size—enabling consumers to evaluate product characteristics, like healthfulness, that would otherwise remain opaque.[210] Interestingly, the literature also suggests using "nutrition labels" in the context of privacy.[211]

Given the difficulty of knowing whether a shopping agent is truly prioritizing the consumer's best interests, disclosure mandates could improve transparency and accountability.[212] Although labeling AI performance may be more complex than nutritional labeling, meaningful disclosures are still possible. Bills before Congress already propose that the Federal Trade Commission (FTC) issue guidelines and reporting rules for AI-based decision systems, including mandatory third-party audits submitted to the FTC.[213] Legislation

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[206] ORCARISK, https://orcaarisk.com/ (last visited June 17, 2025).

[207] Blosser & Weihrauch, *supra* note 192, at 450; *see, e.g.*, *Who We Are*, RESPONSIBLE ARTIFICIAL INTEL. INST., https://www.responsible.ai/who-we-are/ (last visited June 17, 2025).

[208] Peter Cihon et al., *AI Certification: Advancing Ethical Practice by Reducing Information Asymmetries*, 2 IEEE TRANSACTIONS ON TECH. & SOC'Y 200, 202 (201); Reuven S. Avi-Yonah, *Can Tax Policy Help Us Control Artificial Intelligence?*, MARQUETTE LAWYER, Summer 2025.

[209] Sonia K. Katyal & Aniket Kesari, *Trademark Search, Artificial Intelligence, and the Role of the Private Sector*, 114 TRADEMARK REP. 910, 919 (2024).

[210] Shmuel I. Becher et. al., *Hungry for Change: The Law and Policy of Food Health Labeling*, 54 WAKE FOREST L. REV. 1305, 1313 (2019).

[211] Patrick Gage Kelley et al., *A "Nutrition Label" for Privacy*, PROCEEDINGS 5TH SYMPOSIUM ON USABLE PRIVACY & SECURITY (2009) pp. 1-12.

[212] *See* Kees Stuurman & Eric Lachaud, *Regulating AI: A Label to Complete the Proposed Act on Artificial Intelligence*, 44 COMPUTER LAW & SECURITY REV. p.105657 (proposing an AI labeling requirement for NGOs and commercial third parties).

[213] *See* Artificial Intelligence Civil Rights Act of 2024, S. 5152, 118th Cong. (2024); Algorithmic Accountability Act, H.R. 5628, 118th Cong. (2023); Consumer Online Privacy Rights Act, S. 3195, 117th Cong. (2022).

could go further in the context of shopping agents—requiring, for instance, performance audits against benchmarked prices or reports to the FTC regarding the scope of retail listings consulted.[214] This information could then become part of our algorithmic nutrition label, perhaps even bundled into an overall trust score provided to consumers as they evaluate shopping agent performance.

2. Market Architecture and Interoperability Requirements

As gatekeepers between consumers and the marketplace, shopping agents influence which products are seen, which sellers gain prominence, and how options are presented. If agents are operated by dominant retail platforms—such as Amazon or Walmart—it may raise concerns about self-preferencing and discriminatory access. In this sense, the AI agent is not merely a product but a market infrastructure—one that must be governed to preserve competitive conditions across the retail ecosystem. Accordingly, the law should work to ensure that AI agents operate on fair, neutral, and non-discriminatory terms.[215] This could include prohibiting algorithmic self-dealing, mandating equal treatment of third-party sellers, or requiring transparency in how rankings or recommendations are generated.

A particular pro-competitive intervention would be requiring users' AI shopping data to be portable. If consumers cannot easily transfer their preferences, shopping histories, or agent profiles across platforms, switching agents becomes costly—entrenching incumbent platforms and discouraging market entry. Regulations could mandate that firms with high market share enable meaningful user data portability, ensuring that consumers retain the ability to move between

[214] Here, the FTC could draw on the regulation of endorsements and fake reviews, which requires disclosure of non-organic recommendations. *See, e.g.*, *Lord & Taylor Settles FTC Charges It Deceived Consumers Through Paid Article in an Online Fashion Magazine and Paid Instagram Posts by 50 "Fashion Influencers"*, FTC (March 15, 2026), https://www.ftc.gov/news-events/news/press-releases/2016/03/lord-taylor-settles-ftc-charges-it-deceived-consumers-through-paid-article-online-fashion-magazine.

[215] While new regulations may be required here, at least under some conditions, self-preferencing can become an antitrust issue. *See also* Lina M. Khan, *Amazon's Antitrust Paradox*, 126 YALE L.J. 710 (2017) (arguing that dominant platforms like Amazon function as essential infrastructure and that antitrust law must address self-preferencing and discriminatory treatment of third-party sellers).

agents without losing functionality or personalization.[216] This would both empower user choice and reduce the data-driven advantages that allow dominant platforms to consolidate their market position.[217]

In addition to regulating shopping agent *providers*, legal obligations may also be needed for the *retailers* on whom those agents rely. To deliver on their promise, AI shopping tools need access to accurate, comprehensive market data. Yet some retailers—especially those unable to compete on price or quality—may have incentives to withhold or obscure such information. Thus, information disclosures should be implemented to ensure that AI agents (and their users) can easily access and use the disclosed information.[218]

Older disclosure mandates—like Israel's requirement that supermarkets post and continuously update their prices online—aided shoppers by prompting stores to reduce prices to stay competitive.[219] Analogous requirements will be necessary to make the marketplace fully legible to shopping agents. Regulations could prohibit efforts to evade machine-readable transparency and require product data to be disclosed in standardized, machine-readable formats to enhance competition and benefit consumers.[220]

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[216] *Cf.* Joshua Gans, *Enhancing Competition with Data Portability*, BROOKINGS (June 2018), https://www.brookings.edu/wp-content/uploads/2018/06/ES_THP_20180611_Gans.pdf (explaining how data portability can facilitate competition).

[217] Even accounting for potential "free rider" concerns, dominant platforms would still have strong incentives to collect and refine user data. The value of such data lies less in ownership than in analytical capabilities and scale, which entrants cannot easily duplicate. Data portability also concerns user-specific inputs, not proprietary algorithms or internal analytics, and thus preserves investment incentives. Moreover, historical experience with data portability regimes—such as those under the GDPR—suggests that few consumers actually switch providers, indicating that the practical erosion of competitive advantage is limited.

[218] Fernando Luco, *Who Benefits from Retail Disclosure?: The Case of Retail Gasoline*, 11 AM. ECON. J.: MICROECONOMICS 277, 303 (2019).

[219] Itai Ater & Oren Rigbi, *The Effects of Mandatory Disclosure of Supermarket Prices* 2-3 (CESifo, Working Paper No. 6942, 2018). *See also* Yair Listokin & Rory Van Loo, *Against Monetary Primacy*, 119 NW. U. L. REV. 1483, 1522 (2025) (citing the Israeli regulation as an example of "interventions that might either lessen businesses' ability to algorithmically exploit consumer biases, or even support third-party digital intermediaries that could help consumers find the best deals").

[220] Gal, *supra* note 192, at 102.

B. Designing for Consumer Autonomy

Shopping fosters autonomy through identity formation, anticipation, and serendipitous discovery.[221] AI shopping agents risk undermining each of these, especially if they rely exclusively on past preferences, obscure their logic, or reduce opportunities for self-directed exploration. In what follows, we revisit these three mechanisms—identity, anticipation, and surprise—to examine how their erosion or preservation depends on the design of AI systems and the legal regimes that govern them.

1. Algorithmic Design and User Agency

AI agents can be calibrated to foster user self-determination. A well-designed agent can act as an active collaborator in identity formation by curating products that align with a consumer's aspirational values. Consider value-based consumption and the problem of credence attributes: consumers committed to fair trade, animal welfare, environmental sustainability, or other ethical considerations can struggle to verify complex supply chains or manufacturing processes. But AI agents can systematically scan certification databases, corporate reports, and third-party evaluations to identify products truly aligned with a consumer's ideological preferences. In this way, one can imagine AI agents constructed to validate rather than undermine consumer identity. Shopping agent design might also facilitate feelings of anticipation. If configured to flag upcoming purchases, offer delay options, or prompt users to confirm choices before fulfillment, agents can reintroduce a moment of expectation between decision and delivery, providing some of the pre-consumptive pleasure shoppers crave.

However, firms may have little incentive to implement such design features voluntarily. Socially-conscious purchasing strategies might reduce overall sales. An algorithm calibrated to heighten anticipatory pleasures might cause the consumer to postpone additional purchases. To preserve these salutary consumer options, it is essential, as recommended in Part III.A, to facilitate competition between shopping agent providers. And, if the market for digital assistants does not generate these autonomy-enhancing features, regulators or nominated auditors could require the option of

[221] *See supra* Section II.B.

anticipatory buffers or consent prompts for non-routine purchases, thereby restoring deliberative control over some automated transactions.

A more formidable concern stems from AI agents tethering purchases solely to past behavior, thereby generating biased recommendations based on existing inputs.[222] True, many shoppers would often be comfortable repeatedly ordering the same item or brand—after all, humans are naturally inclined to rely on shopping habits and familiar choices. Still, this does not always lead to optimal results, and people do sometimes look to shopping as a means for considering new trends and ideas.[223] Furthermore, regardless of the relevance of past commercial selections to optimizing future preference satisfaction, there is a strong normative intuition that, as part of our autonomy, we ought to have the capacity to update our preferences.[224]

Agents should include dynamic preference-feedback tools that allow users to update their tastes, override assumptions, or enter "explore" modes that encourage novelty. AI agents can indeed be coded to promote feelings of discovery, lest online shopping become too predictable.[225] Explore-mode features are especially important for preserving the surprise element of shopping—the delight of discovering something unanticipated or unfamiliar. In parallel, other legal mandates could also ensure autonomy-preserving design features—such as requiring confirmation for non-routine purchases or flagging when recommendations fall outside a consumer's historical profile. Overall, these design features and regulatory backstops would help reinforce the user's role as the ultimate author of their consumption journey.

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[222] Cyphert et al., *supra* note 140, at 306.

[223] Edward M. Tauber, *Why Do People Shop?*, 36 J. MKTG. 46, 47 (1972).

[224] Leung et al., *supra* note 106.

[225] *See* Camille Grange, Izak Benbasat & Andrew Burton-Jones, *With a Little Help From My Friends: Cultivating Serendipity in Online Shopping Environments*, 56 INFORMATION & MGMT. 225, 225 (2019); Christian Matt et al., *Escaping From the Filter Bubble? The Effects of Novelty and Serendipity on Users' Evaluations of Online Recommendations*, ICIS 2014 PROCEEDINGS, https://aisel.aisnet.org/icis2014/proceedings/HumanBehavior/67/.

2. Data and Copyright Fair Use

Even the best-designed agent cannot effectively support autonomy if it lacks access to new, diverse, human-generated data. To that end, AI shopping agents require continuous exposure to a broad and evolving corpus of information—covering brands, products, services, trends, and price trajectories.[226] This training data must not only be extensive but also human: created, cultivated, and curated through real-world experience and expression.[227] Synthetic content—i.e., data generated by AI models—is a poor substitute. Models trained primarily on their own outputs risk "model collapse," a form of degradation in which systems lose fidelity by learning from distorted reflections of themselves, thereby producing increasingly poor and unrealistic results.[228] Yet, the data necessary to support autonomy-enabling AI systems faces increasing legal constraints. Copyright holders have mounted vigorous challenges to the unauthorized use of their works in AI training, filing numerous lawsuits alleging infringement of their exclusive rights to reproduce and create derivative works.[229] Given that copyright protection extends to any original expression fixed in a tangible medium with even minimal creativity,[230] the central legal question in these cases is not whether the underlying material merits protection, but rather whether training generative AI systems constitutes fair use under existing doctrine.[231] This legal uncertainty threatens to significantly limit the breadth and diversity of training data available to AI developers, potentially constraining the development of systems capable of supporting meaningful human self-determination.

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[226] Peter K. Yu, *Beyond Transparency and Accountability: Three Additional Features Algorithm Designers Should Build into Intelligent Platforms*, 13 NW. U.L. REV. 263, 294 (2021).

[227] Cyphert et. al., *supra* note 140, at 309.

[228] Ilia Shumailov et al., *AI Models Collapse When Trained on Recursively Generated Data*, 631 NATURE 755 (2024).

[229] The George Washington University, *AI Litigation Database*, https://blogs.gwu.edu/law-eti/ai-litigation-database/.

[230] Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 345 (1991). *See also* Mark Bartholomew, *Copyright and the Creative Process*, 97 NOTRE DAME L. REV. 357, 362-63 (2021) (critiquing the permissive nature of copyright's creativity requirement).

[231] Pamela Samuelson, *Fair Use Defenses in Disruptive Technology Cases*, 71 UCLA L. REV. 1484, 1487 (2024) ("Fair use is likely to be the main defense generative AI companies will raise in the lawsuits.").

U.S. copyright law permits certain unauthorized uses of protected works under the fair use doctrine, which considers four statutory factors: (1) the purpose and character of the use, (2) the nature of the copyrighted work, (3) the amount used, and (4) the effect on the market for the original, protected work.[232] The most important of these is the first factor—especially whether the use is "transformative," thereby serving a new and different purpose from the original.[233]

Training shopping agents on expressive content should qualify as transformative use under established fair use doctrine. Courts have recognized in analogous contexts involving new technologies that copying for non-expressive, functional purposes—such as enabling searchability of books in digital libraries[234]—differs fundamentally from traditional copyright infringement.[235] AI training operates similarly: it ingests human-authored content to generate qualitatively different outputs in the form of tailored shopping recommendations rather than expressive reproductions of the original works. Shopping agents trained on reviews, advertisements, and other retail materials do not reproduce or display this content to users. Instead, they extract patterns from these inputs to generate individualized predictions and recommendations. This fundamental difference in purpose and output strongly supports a finding of transformative use, as the training process serves a markedly different function from the original expressive works.[236]

Admittedly, this argument was on stronger footing before the Supreme Court's 2023 decision in *Andy Warhol Foundation v. Goldsmith*.[237] In that case, the Court considered whether Warhol's use of a copyrighted photograph of the musician Prince—used as the basis for one of his signature celebrity portraits—was favored under the "purpose and character" factor. The Court held that it was not, downplaying the new meaning embodied in Warhol's use and emphasizing the commercial nature of his appropriation.[238] In doing

[232] 17 U.S.C. § 107.
[233] Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 579 (1994).
[234] Authors Guild, Inc. v. Google, Inc., 804 F.3d 202, 224-25 (2d Cir. 2015).
[235] Matthew Sag, *The New Legal Landscape for Text Mining and Machine Learning*, 66 J. COPYRIGHT SOC'Y U.S.A. 291, 294 (2019).
[236] Edward Lee, *Fair Use and the Origin of AI Training*, 63 HOUSTON L. REV. ___ at 59-60 (forthcoming 2025).
[237] Andy Warhol Found. for the Visual Arts, Inc. v. Goldsmith, 598 U.S. 508 (2023).
[238] *Id*., at 547. Specifically, the Warhol estate had licensed the resulting image to a magazine.

so, the Court stated that even a moderately transformative use "must be weighed against other considerations like commercialism,"[239] thereby minimizing the importance of transformation by declaring that though it "may be relevant . . . it is not, without more, dispositive of the first factor."[240]

Although *Warhol* involved expressive use (using a photograph to create a celebrity portrait), the decision may make courts more sceptical of non-expressive, AI-related copying.[241] Training shopping agents on copyrighted material will likely be construed as commercial activity—particularly given that even "free" AI services, like ChatGPT, often collect data for monetization.[242] Just as the licensing of Warhol's portrait weighed against fair use, courts may find that training shopping agents to produce recommendations serves commercial interests, not transformative ends.[243]

AI shopping developers may maintain that their training purpose—canvassing user commentary and retail information to generate customized predictions—is fundamentally different from the expressive goals of the original works. But critics could counter that this copying is, at best, "moderately transformative," amounting to little more than product recommendations based on repackaged inputs.[244] Some lower courts have already invoked *Warhol* to cast doubt on transformative fair use claims advanced by AI developers.[245] Such a cramped view of fair use endangers the promise of AI shopping;

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[239] *Id*. at 525.
[240] *Id*.
[241] David W. Opderbeck, *Copyright in AI Training Data: A Human-Centered Approach*, 76 OKLA. L. REV. 951, 991 (2024); Nicole S. Boucher, Note, *Beyond Appropriation Art and Algorithms: Examining the Precedent Set by* Warhol v. Goldsmith *and Its Implications for Artificial Intelligence*, 39 BERKELEY TECH. L.J. 1325, 1329 (2024).
[242] *See* Kadrey v. Meta Platforms, Inc., Case No. 23-CV-03417-VC, (N.D. Cal., June 25, 2025) at 18 (weighing the "commercial nature of Meta's use" against the AI platform even though Meta's use was deemed transformative and its platform available with a free license); Sara Morrison, *The Tricky Truth About How Generative AI Uses Your Data*, VOX (July 27, 2023), https://www.vox.com/technology/2023/7/27/23808499/ai-openai-google-meta-data-privacy-nope (discussing how AI platforms plan to generate subscription revenue in future).
[243] *See* Opderbeck, *supra* note 241, at 991.
[244] Sony Comp. Entmt. v. Connectix Corp., 203 F.3d 596, 606 (9th Cir. 2000).
[245] *AI Training Using Copyrighted Works Ruled Not Fair Use*, PATTERSON BELKNAP WEBB & TYLER LLP (Feb. 24, 2025), https://www.pbwt.com/publications/ai-training-using-copyrighted-works-ruled-not-fair-use.

starved of new data, outdated agents could lock consumers into outdated profiles.

Courts should distinguish *Warhol* as a case involving expressive reuse. AI training is different: it extracts patterns across vast datasets to generate functional outputs without substituting for original works. This kind of use is highly transformative; it advances innovation and user autonomy while posing minimal risk to creative markets. If the courts fail to see the distinction, then Congress needs to enact a statutory carve out, following the precedent of other legislative exceptions to copyright meant to address the challenges posed by new technologies.[246]

3. Data and Web Scraping

Not all online content is protected by copyright. The Copyright Act explicitly excludes ideas, procedures, processes, systems, methods of operation, concepts, or principles from protection.[247] Factual material like historical buying patterns, for instance, may be considered an uncopyrightable "idea" rather than protected "expression."[248] On this view, much of the online data needed to train AI shopping agents falls outside copyright protection. Legislative proposals and new legal interpretations would close off access to this data, jeopardizing the dynamic, real-world inputs AI agents need to incorporate users' evolving preferences.

AI platforms collect both copyrightable and uncopyrightable content through web scraping—the automated extraction of information from websites.[249] This technique has powered the training of models like ChatGPT and DALL·E.[250] To be sure, web scraping is widespread, accounting for roughly a quarter of all internet traffic.[251]

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[246] *See, e.g.*, Digital Millenium Copyright Act, 17 U.S.C. § 512; Audio Home Recording Act of 1992, 17 U.S.C. § 1008.

[247] 17 U.S.C. § 102(b).

[248] Copyright law excludes all material, like facts, "that do not owe their origin to an act of authorship." Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 347 (1991).

[249] *What is Data Scraping?*, CLOUDFLARE (Oct. 21, 2022), *archived at* https://perma.cc/Q8ZT-NRPE.

[250] Opderbeck, *supra* note 241 at 961; Dennis Layton, *ChatGPT – Show Me the Data Sources*, MEDIUM (Jan. 30, 2023).

[251] Tess Macapinlac, *The Legality of Web Scraping: A Proposal*, 71 FED. COMM. L.J. 399, 402 (2019).

It is widely used to aggregate large volumes of online information that would be impractical to gather manually.[252] The same technique will likely underpin emerging shopping agents that rely on real-time access to diverse product data—so long as some ill-advised efforts to combat the practice do not succeed.

Website owners use various tools to deter scraping. One is the installation of a "robots.txt" file—a widely used protocol that instructs bots to avoid certain pages.[253] In addition, some platforms, including major news outlets like the New York Times and BBC, also attempt to block scraping through their terms of service.[254] For the most part, these efforts to restrict scraping are not legally enforceable. Courts have generally held that denying access via robots.txt, without more, does not create binding obligations. Similarly, courts typically require clear evidence of assent—such as clicking a button or checking a box—before anti-scraping terms of service restrict users.[255]

As a result, most publicly accessible websites cannot legally exclude AI agents that collect data without the agent's interacting with the site in a way that signals assent.[256] Nevertheless, a few courts have taken a different approach, finding that ignoring the robots.txt file or anti-scraping provisions in terms of service constitute actionable violations.[257] Also troubling are initiatives that partially outlaw scraping or condition its legality on the scraper securing prior consent. European regulators suggest that certain sources naturally relied on for AI training, including public social media profiles, should be excluded

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[252] *Id.*

[253] Andrew M. Parks, *Unfair Collection: Reclaiming Control of Publicly Available Information from Data Scrapers*, 120 MICH. L. REV. 913, 919 (2022).

[254] Ariel Bogle, *New York Times, CNN, and Australia's ABC Block OpenAI's GPTBot Web Crawler from Accessing Content*, GUARDIAN (Aug. 24, 2023); Emilia David, *The BBC Is Blocking OpenAI Data Scraping but is Open to AI-Powered Journalism*, THE VERGE (Oct. 6, 2023).

[255] *See, e.g.*, Berman v. Freedom Fin. Network, LLC, 30 F.4th 849, 856 (9th Cir. 2022).

[256] Some state laws already require platforms to disclose that scraping is occurring. *See* Brian Stuenkel, *Personal Information and Artificial Intelligence: Website Scraping and the California Consumer Privacy Act*, 19 COLO. TECH. L.J. 429 (2021) (discussing the application of California Consumer Privacy Act to web scraping activities). These disclosure requirements are generally unobjectionable; they may support transparency, especially when auditing the reliability of AI shopping agents.

[257] *See* hiQ Labs, Inc. v. LinkedIn Corp., 639 F. Supp. 3d 944, 954-55 (N.D. Cal. 2022); Healthcare Advocates, Inc. v. Harding, Early, Follmer & Frailey, 497 F. Supp. 2d 627, 423 (E.D. Pa. 2007).

from data collection.[258] In the U.S., some legal scholars and state legislators want to allow creators of publicly-available content to opt-out of scraping,[259] potentially imposing cumbersome requirements on AI agent providers and reducing the quality and comprehensiveness of available data. The absence of clear national rules has left web scraping in a state of legal uncertainty, especially for developers of AI systems intended to serve consumer-facing functions.

To preserve the adaptability of AI shopping agents and ensure they can respond to users' evolving preferences, Congress should enact federal legislation protecting web scraping for AI training. Like human market researchers, AI agents should be free to access publicly available websites without seeking permission. While broad access would entail various implications that should be considered,[260] denying agents this access risks stagnation, bias, and eventual model collapse.[261] While some objections to the downstream use of scraped data are legitimate,[262] this should not preclude narrowly tailored protections for socially beneficial applications. Accordingly, Congress should enact legislation that permits web scraping for AI training when the data is (1) publicly accessible, (2) factual in nature, and (3) used to support consumer-serving systems such as AI shopping agents.

A clear federal rule along these lines would preempt inconsistent state laws and reduce liability risks for responsible developers. It would also resolve the legal ambiguity around robots.txt files and "do

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[258] *To Scrape or Not to Scrape: EU Authorities' Recent Interpretations*, DENTONS (June 18, 2024), https://www.dentons.com/en/insights/articles/2024/june/18/to-scrape-or-not-to-scrape-eu-authorities

[259] Opderbeck, *supra* note 241, at 956; Frank Pasquale & Haochen Sun, *Consent and Compensation: Resolving Generative Ai's Copyright Crisis*, 110 VA. L. REV. ONLINE 207, 211 (2024) (proposing "an opt-out mechanism, permitting creatives to forbid nonconsensual use of their works for training AI models after documenting copyright infringement.").

[260] Permitting large-scale scraping is not costless, as automated access increases server load and bandwidth costs for content hosts, raising questions about who bears those operational burdens. More broadly, if agent-based browsing supplants human access, it could reshape web architecture and business models: webpages may evolve into API-like data endpoints with minimal front-end design, and sectors built on human visibility—such as influencer marketing—could be substantially disrupted. These implications would warrant careful calibration and further deliberation.

[261] *See supra* notes 226-228 and accompanying text.

[262] See Benjamin L.W. Sobel, *A New Common Law of Web Scraping*, 25 LEWIS & CLARK L. REV. 147, 149-51 (2021) (discussing the need to prevent creation of facial recognition databases through unauthorized web scraping).

not train" notices in website terms of service, providing much-needed certainty for innovators acting in good faith.[263] Enabling AI agents to surface surprising or exploratory results—rather than merely replicating past behavior—requires continuously updated data sources. Web scraping protections are thus not just about keeping models current; they are essential to ensuring users continue to encounter the unexpected and unprescribed, thereby facilitating serendipity. Guardrails of this kind would preserve the data commons essential for innovation while preventing misuse in more sensitive contexts.

C. Keeping Shopping Prosocial

Shopping is not merely a solitary act of consumption but a socially embedded practice. Through purchases, we express affection, signal moral commitments, and participate in shared rituals. From gift-giving to co-shopping to choosing ethically branded products, consumer choices often double as social gestures. Navigating the marketplace sharpens critical faculties and shared virtues that carry over into other, non-commercial contexts.

AI agents jeopardize these social facets by streamlining transactions in ways that strip them of interpersonal resonance. The real challenge lies not in the technology itself but in whether its design aligns with—or becomes divorced from—the social dimensions that make shopping a relational practice. If thoughtfully implemented, AI agents can amplify, not undermine, some communal rituals. They could surface socially sourced recommendations (e.g., products endorsed by friends or affinity groups), invite users into shared browsing sessions, or even facilitate collective bargaining and group purchases at scale. They might also introduce users to culturally significant traditions outside their existing networks, using collective data to foster cross-cultural awareness and shared discovery.

Designed the right way, agents could even partially preserve the transmission of thrift as a social virtue. For example, research reveals that subtle accountability cues bolster responsible spending. Thrift-instructive AI shoppers could send gentle "stewardship" nudges to remind users of their role as wise guardians of shared resources.[264] In

[263] Desai & Riedl, *supra* note 9, at 106.

[264] *See* Melissa Bateson, Daniel Nettle & Gilbert Roberts, *Cues of Being Watched Enhance Cooperation in a Real-World Setting*, 2 BIOL. LETTERS 412, 412 (2006)

all these ways, AI design might help reinforce shopping's social dimensions, not erode them.

Nevertheless, the incentives of retailers and shopping assistant providers may not align with these prosocial practices, resulting in design elements that fray shopping's communal fabric. Furthermore, some shopping practices carry a social weight that algorithmic design cannot replicate. Where the human act matters most—for example, when a purchase must express care, solidarity, or personal attention—automated assistance may not only be unnecessary but genuinely unwelcome. To preserve these prosocial qualities, there must be some mandatory shopping agent design features as well as the ability to blockade AI's participation from some commercial decisions. We next turn to two such safeguards: the user "off button" and a broader institutional kill switch.

1. The User "Off Button"

One simple but powerful control safeguard is a mandated "off button": a user-facing mechanism to disable shopping agents for specific transactions or time periods. While one might hope that competition amongst shopping agent providers will encourage such a feature, there is no guarantee it will—especially when continuous automation serves both convenience and profit.[265] Mandating an off button would protect consumer autonomy and allow users to ringfence those domains where prosocial benefits loom largest.

At a certain point, delegating a task to technology risks undermining our moral or relational commitments. We may lack the time to be as attentive to others as we would like, but there remains a threshold beyond which delegation ceases to support care and instead erodes it. For instance, even though the necessary technological capabilities already exist, an app that auto-likes friends' posts or a device that monitors a partner's moods and sends prewritten texts in response would dehumanize our relationships, stripping away their substance.[266]

(reporting that displaying images of eyes increased contributions to an honesty box, suggesting subtle observation cues promote cooperative behavior).

[265] *See supra* note 47 (citing Mastercard's claim about increased conversion rate).

[266] *See* BRETT FRISCHMANN & EVAN SELINGER, RE-ENGINEERING HUMANITY 162 (2018) ("Providing direct attention through personalized communication is an important way we show people we care about them.").

The same holds true for certain purchases. A gift adequately expresses care and love when it reflects a human choice, not an algorithmic shortcut. Delegating the task to AI risks reducing what should be a meaningful act into an optimized transaction.[267] Turning off the agent in such contexts would preserve the relational significance of the act. Designers might even consider allowing users "certify" or "watermark" purchases as made in human mode—signaling to recipients that the gesture was personal, not outsourced.

Without safeguards like an off-switch, users risk being steered toward consumption by default in all contexts—even when their deeper preference is abstention. Take the one-day economic boycott organized on February 28, 2025, in protest of "corporate greed" and a lack of "government accountability" during the early days of the second Trump administration.[268] The campaign measurably reduced both online and in-store traffic at major retailers like Target and Walmart across the United States.[269] A commercially-oriented agent might fail to recognize such situational anti-consumerism, still nudging its users to make a purchase, finding the presence of a discount or limited-time deal more salient than political protest. Preserving the political agency of consumers in such cases requires mechanisms that allow users to resist algorithmic momentum and assert their values on their own terms.

An off-switch is also needed to give users control over when and how they are surveilled. From a preference-satisfaction perspective, it might seem optimal for AI agents to monitor users constantly—regularly absorbing behavioral cues to refine recommendations. Yet individuals should sometimes be able to shield themselves from such tracking.[270] Notably, this is distinct from merely choosing agent-free shopping, which should remain trivially available without any override or difficult navigation of default settings. The agent-user interface should allow particular physical spaces, human relationships, and timeframes to be declared off limits from algorithmic tracking.

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[267] *Id*. at 165.

[268] Ivana Saris, *What to Know About the Feb. 28 "Economic Blackout,"* AXIOS, (Feb. 25, 2025), https://www.axios.com/2025/02/25/economic-blackout-february-28-peoples-union.

[269] Betty Lin-Fisher, *What Are the Results from the Feb. 28 Economic Blackout? See What the Data Shows,* USA TODAY (Mar. 6, 2025).

[270] *See generally* Julie E. Cohen, *What Privacy Is For*, 126 HARV. L. REV. 1904 (2013) (arguing that privacy is essential to self-development and autonomy).

Of course, the incentives of AI shopping agent providers run in a different direction. They are likely to push for ubiquity—positioning agents as seamless tools not just for shopping, but for checking the weather, tracking loved ones, or managing daily logistics. The more shopping is folded into the other tasks we willingly automate, the less visible the agent becomes, even as it continuously monitors our behavior and purchases on our behalf.

We already trust algorithms to filter spam, autocomplete sentences, and optimize our thermostats. Other technologies—Spotify's bedtime playlists, fitness watches tracking our sleep—study our unconscious rhythms. It is not hard to imagine gradual acceptance of an always-on digital sentry that turns every facet of life into market research and fails to adjust for commercial transactions implicating intimate relationships, political protest, or privacy concerns.[271] This is why an off-button is critical.

An off-button only helps if it is used—and here, the details of implementation matter. Defaults encode values, and where social meaning is at stake, those values deserve deliberate calibration. If AI agents are activated by default, many users will sleepwalk through socially meaningful transactions without ever pausing to consider whether automation is appropriate.[272] Yet if the system requires users to manually opt in for each purchase, it risks introducing too much friction—especially in low-stakes contexts—that jeopardize the efficiency gains of AI shopping. Either way, the choice architecture will shape outcomes. The real challenge lies in designing defaults that reflect the normative weight of certain transactions without overwhelming users with decision fatigue or introducing unwarranted paternalism.

Knowing when to disable an AI agent will depend on context. At work, users may welcome AI agents that reorder office supplies, book travel, or manage recurring transactions. In this context, efficiency is paramount and delegation often benign. But domestic and relational purchases—gifts for loved ones, shared meals, or symbolic objects—carry a different weight. Bringing the same logic of optimization into

[271] Consider, for example, the real practice of marketing to consumers while they dream. *See* Dustin Marlan, *The Nightmare of Dream Advertising*, 65 WM. & MARY L. REV. 259, 263-67 (2023).

[272] Behavioral economics has long emphasized the power and stickiness of defaults. *See, e.g.*, Eric J. Johnson & Daniel Goldstein, *Do Defaults Save Lives?*, 302 SCIENCE 1338 (2003).

these spaces risks dulling the very social sensitivities that make such purchases meaningful.[273] As in other domains, it is important not to conflate market norms with social norms.[274] The point is not to ban automation from private life, but to preserve room for messiness, intention, and surprise—features that enrich rather than impede human connection.

Even so, discerning the line between helpful social optimization and erosion of a critical human function will not be easy. Admittedly, any regulatory framework must largely delegate these boundary-drawing decisions to individual users, since the social meaning of purchases is subjective and can vary across cultures, relationships, and personal values. Rather than prescribing which transactions matter, the goal is to ensure users can easily identify when automation is active and meaningfully opt out when social significance is at stake.

While bright-line rules would be impractical, certain commercial categories seem to prioritize human control. Gifts expressing personal relationships, purchases tied to religious or cultural rituals, and symbolic objects marking life transitions might all trigger nudges from a sensitive shopping agent for exercising the off-button prerogative. Other domains—such as interactions with cable and internet providers or acquisition of routine household supplies—more readily accommodate automation.

In close calls, the default should err on the side of preserving the human, while allowing users to make a deliberate choice to opt out. Sociality is a fragile human capability, vulnerable to techno-social drift.[275] Tasks once considered unthinkable to outsource—emotional expression, symbolic gestures—may slowly become routinized. Most would still balk at algorithmically composed wedding vows or condolence messages, but norms can change.[276] The danger is not just

[273] FRISCHMANN & SELINGER, *supra* note 266, at 163.

[274] *See, e.g.*, Margaret Jane Radin, *Market-inalienability*, 100 HARV. L. REV. 1849 (1987) (arguing that some goods and relationships should be kept outside market exchanges because converting them into commodities corrodes underlying social norms and values).

[275] *See* Ewan Morrison, *The Cruelty of Tech Utopianism: Human Suffering Isn't Progress*, UNHERD (May 20, 2025), https://unherd.com/2025/05/the-cruelty-of-tech-utopianism/.

[276] *See* Katherine Tangalakis-Lippert, *ChatGPT Is Making Us Weird*, BUSINESS INSIDER (June 1, 2025) (discussing online debate about "whether it's appropriate for a spouse to use ChatGPT to write a love note to their partner").

automation itself, but the way it migrates—justified in one domain, then normalized in another.

While no off-switch can cordon off entire domains, this design feature still offers something crucial: the ability to choose which relationships, rituals, or spaces we entrust to automated systems, and which we refuse to commercialize. Given the speed at which these systems are advancing—often outpacing our ability to predict or absorb their social implications—such tools of discretion may be essential to preserving the relationships, rituals, and forms of social meaning that make shopping a human, not merely transactional, activity.

2. The Government Kill Switch

Whereas a user-facing off-button can help preserve shopping's interpersonal and expressive functions, some social dimensions require more than individual discretion. There may be cases where AI agents must be restrained despite accurately reflecting consumer choice, when unfiltered delegation erodes the broader civic or developmental functions that shopping has long served. In such moments, what is needed is the institutional equivalent of a government kill switch: a structural safeguard to suspend or limit certain uses of AI agents in order to protect socially vital practices.

Societies sometimes preserve analog systems not because newer tools fail, but because older practices cultivate forms of engagement that remain socially valuable. Cab drivers in London, for example, must still pass a rigorous map-based memory test that takes years to master—despite the ubiquity of GPS—because that skill fosters spatial reasoning and adaptive judgment that automation does not fully replace.[277] Students still learn long division even though they now travel life with a calculator in their pocket. Modern jurors may prefer to complete their service remotely, but trials continue to take place in person in the solemnity of the courtroom.[278]

Similarly, traditional shopping fosters forms of comparison, evaluation, and negotiation that can support broader civic dispositions.

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[277] *See* Kirsten Robertson, *Not the End of the Road for London Cabbie Test the Knowledge*, METRO (Dec. 23, 2023), https://metro.co.uk/2023/12/23/not-end-road-london-cabbie-test-knowledge-19974861/.

[278] Paula Hinton & Tom Melsheimer, *The Remote Jury Trial Is a Bad Idea*, LAW360, June 9, 2020.

Assessing marketing claims, navigating warranties, and working within budgets may not teach citizenship outright, but these tasks reinforce habits of discernment, self-advocacy, and resource awareness that translate beyond the marketplace.[279] If AI agents displace these activities entirely, the loss may not be technical but cultural: a thinning of everyday practices that help sustain shared norms, attentiveness to others, and civic reasoning. Alas, this comes at a moment when democratic societies already face concern over declining civic literacy and reduced opportunities for responsive, face-to-face engagement.[280]

At first glance, one might argue that if users prefer to delegate their shopping decisions, there is no justification for state interference. This objection echoes, for instance, Mill's classic harm principle: individuals should be free to act as they wish unless their actions harm others.[281] But such a view assumes that present preferences are always authoritative—that what a consumer chooses today fully reflects what promotes their flourishing over time.

Against this backdrop, the capabilities approach advanced by Amartya Sen and Martha Nussbaum may offer a more nuanced foundation for intervention.[282] The capabilities approach emphasizes the need to safeguard the conditions under which individuals can develop and exercise core human capabilities—such as critical reflection, practical reasoning, and social affiliation. On this view, the state's role is not merely to prevent harm, but to ensure that people retain access to the practices and domains that sustain those capabilities. For example, from historic preservation to life-saving

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[279] *See, e.g.*, DONALD E. FREY, AMERICA'S ECONOMIC MORALISTS: A HISTORY OF RIVAL ETHICS AND ECONOMICS 91 (2009) (chronicling belief that navigating the temptations and tricks of the marketplace have taught Americans salutary values); Alfred C. Yen, *The Constructive Role of Confusion in Trademark*, 93 N.C. L. REV. 77, 125-26 (2014) (arguing that legal tolerance for some confusing trademark uses helps consumers "develop valuable cognitive skills").

[280] John Bridgeland & Louise Dube, *Nation's Report Card Shows America Is Flunking at Civics*, CINCINNATI ENQUIRER (June 22, 2023), https://www.cincinnati.com/story/opinion/2023/06/22/nations-report-card-shows-america-is-flunking-at-civics-opinion/70314975007/.

[281] JOHN STUART MILL, ON LIBERTY 23 (1859).

[282] *See generally* AMARTYA SEN, DEVELOPMENT AS FREEDOM (1999) (laying the conceptual groundwork for the capabilities approach); MARTHA C. NUSSBAUM, CREATING CAPABILITIES: THE HUMAN DEVELOPMENT APPROACH (2011) (developing a normative framework of central human capabilities for policy and law).

drugs to preserving the information commons, individual property rights sometimes need to yield to foster the capabilities necessary to human flourishing.[283]

When AI agents begin to displace shopping in ways that erode civic learning or relational engagement, a structural intervention—like a kill switch—may be warranted not in spite of consumer choice, but because the very capacity for meaningful choice is at risk. To illustrate, consider the domain of childhood and adolescent development. If young people grow up entirely shielded from price comparison, weighing trade-offs between immediate needs and long-term value, or even the act of selecting a gift, they may lose opportunities to cultivate judgment. Given shopping's longstanding role in transmitting prosocial skills, it may make sense to institute age verification requirements that would prohibit children from using shopping agents without supervision.[284] Recognition that developmental needs and age-related vulnerability can justify limiting choices that adults would freely make already underlies numerous tailored legal protections for children—from restrictions on advertising and social media access to movie ratings and child labor laws.[285]

Beyond age cutoffs, there need to be other mechanisms in place allowing for aspects of AI shopping to be halted to protect broad social interests. Certification requirements can be valuable not only for verifying the credence qualities necessary to optimizing consumer preference,[286] but also to ensure that shopping agents threatening to prosocial qualities are taken offline. The periodic reviews necessary for certification could scrutinize AI agent operation for surveillance harms, commercialism creep, and design features that privilege efficiency gains over the user's reported ethical preferences. If found

[283] Gregory S. Alexander, *The Social-Obligation Norm in American Property Law*, 94 CORNELL L. REV. 745, 791-815 (2009).

[284] For instance, Utah's App Store Accountability Act, UTAH CODE ANN. § 13-75-101 (West. 2025), requires mobile app stores (chiefly Google and Apple) to verify user ages, link underage accounts to a parent's account, and obtain parental permission for any in-app purchases. *See* Kif Leswing, *Utah Governor Signs Online Child Safety Law Requiring Apple, Google to Verify User Ages*, CNBC, Mar. 26, 2025.

[285] *See, e.g.*, Children's Television Act of 1990, 47 U.S.C. § 303a (limiting commercial content in children's programming; Fair Labor Standards Act, 29 U.S.C. § 212 (restricting employment of minors).

[286] *See* Part III.A.1 *supra.*

to be lacking, the agent would be removed from the market until its purveyor adopted the best practices necessary for re-certification.

A more significant safeguard would involve foundational legislation enabling legislators to scale back shopping automation without new laws. Sunset provisions embedded in initial AI shopping legislation could mandate periodic review, preventing regulatory defaults from becoming permanent without deliberate reconsideration.[287] While regulatory fine-tuning may be difficult given uncertainty around AI agents' trajectory and risks,[288] adopting a wait-and-see approach that foregoes regulation entirely would be a mistake. Regulation incorporating sunset provisions would permit legal standards to evolve as the technology's effects clarify.[289]

Sunset clauses are established tools for addressing technological advancement. The USA Patriot Act's surveillance features contained expiration dates, demanding renewed assessment and debate about federal surveillance technologies while balancing effectiveness against civil liberties.[290] Similarly, the main law meant to address the rise of the Internet, the Telecommunications Act of 1996, included provisions ensuring reevaluation amid changing technology and market conditions.[291] Sunset provisions have been proposed for other nascent technologies with significant social implications, reflecting their utility in managing technological uncertainty.[292]

The critical consideration is preserving regulatory flexibility. The Telecommunications Act, with its default offramps, is considered both revolutionary and successful.[293] In contrast, section 230 of the Communications Decency Act, enacted the same year without sunset

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[287] Sofia Ranchordás, *Innovation-Friendly Regulation: The Sunset of Regulation, the Sunrise of Innovation*, 55 JURIMETRICS J. 201, 219 (2015).

[288] Gary Marcus, *The "AI 2027" Scenario: How Realistic Is It?*, SUBSTACK, May 22, 2025.

[289] Nathan Cortez, *Regulating Disruptive Innovation*, 29 BERKELEY TECH. L.J. 175, 218–19 (2014).

[290] *See* John E. Finn, *Sunset Clauses and Democratic Deliberation: Assessing the Significance of Sunset Provisions in Antiterrorism Legislation*, 48 COLUM. J. TRANSNAT'L L. 442, 462-63 (2010).

[291] *See* Thomas J. Hall, *The FCC and the Telecom Act of 1996: Necessary Steps to Achieve Substantial Deregulation*, 11 HARV. J.L. & TECH. 797, 815 (1998).

[292] *E.g.*, Jesse Krompier, *Safety First: The Case for Mandatory Data Sharing as a Federal Safety Standard for Self-Driving Cars*, 2017 U. ILL. J. L., TECH & POL'Y 439, 466-67 (self-driving cars); Henry E. Smith, *Governing the Tele-Semicommons*, 22 YALE J. REG. 289, 301 (2005) (telecommunications).

[293] Smith, *supra*, at 289.

provisions, is viewed much less favorably.[294] That section grants broad immunity to internet platforms for user-generated content and has remained essentially unchanged throughout three decades of dramatic technological and social transformation. In that time, the political and financial power of the social media companies has grown exponentially, undercutting efforts at reform despite growing evidence of social media's deleterious consequences to children and others.

Without legislative kill switches, initial, hesitant attempts to address AI shopping risk becoming impossible to dislodge. The kill switch is not a call to halt innovation, nor a rejection of convenience. It is a recognition that some social functions—care, connection, civic learning—cannot be reconstructed once displaced. Used sparingly but deliberately, and in combination with other safeguards, structural interventions like these can help ensure that the future of shopping remains not only efficient, but meaningfully human.

To visualize our key regulatory and policy proposals, Diagram 1 describes a four-tier continuum of interventions for AI shopping agents: beginning with light-touch informational tools, moving to soft structural measures, followed by mid-level structural controls, and culminating in enforceable command-and-control mechanisms. The Diagram lists each tier's specific toolkit elements, mapping the escalation of regulatory force to distinct policy objectives.

Diagram 1: Segmented Regulatory Continuum

	Light touch	**Structural (soft)**	**Structural (mid)**	**Command-and-control**
Intervention type	Information tools	Competition enhancement	Design controls	Mandatory regulatory overrides
Toolkit	Algorithmic nutrition labels	Portability mandates Standardized data formats	Off button Novelty slider	Age limits Sunsets

[294] *E.g.*, Mary Graw Leary, *The Failed Experiment of Section 230 of the Communications Decency Act: How It Facilitates Exploitation and How It Must Be Reformed*, 70 VILL. L. REV. 49, 56 (2025); Spencer Overton & Catherine Powell, *The Implications of Section 230 for Black Communities*, 66 WM. & MARY L. REV. 107, 117-18 (2024).

	Regulatory (FTC) reports	Voluntary certification	Copyright carve out Data integrity rules	Mandatory certification

CONCLUSION

The rise of AI agents represents more than a technological advancement—it signals a fundamental recalibration of the triadic relationship among consumers, markets, and society. As this Article illustrates, AI agents can make markets more competitive, commercial transactions more fair, and shopping more efficient. Yet along with this promise, there are perils to AI shopping. Left unchecked, shopping agents threaten to distort market competition, constrain consumer autonomy, and erode the social rituals and civic learning opportunities that underpin much of our collective life.

Calibrated legal interventions are indispensable for preserving the economic discipline, personal autonomy, and relational richness that make shopping valuable far beyond mere acquisition. Yet traditional legal frameworks—built on assumptions of human deliberation and transactional transparency—prove inadequate for governing algorithmically mediated commerce operating at machine speed, scale, and sophistication. To navigate this profound transformation, this Article advocates for a proactive, machine-aware regulatory response encompassing targeted consumer protection and antitrust enforcement, design nudges to preserve shopper autonomy, and structural safeguards, including age limits and sunset provisions.

The shopping practices that have long defined modern commerce will gradually become obsolete in an algorithmic age. But the "end of shopping" we envision does not reflect a prediction that shopping as a phenomenon will cease to exist. Instead, it represents a recognition that AI agents will fundamentally transform how we acquire goods and services, potentially severing the connection between transaction and experience that has characterized commerce for millennia. As new technologies reshape the architecture of choice and compress the temporal space between desire and fulfillment, regulatory frameworks must evolve beyond traditional consumer protection to preserve the economic discipline and social interaction that imbue shopping with meaning. The challenge ahead is to refine the efficiency of acquisition

while maintaining the human elements that transform mere purchasing into the rich, multifaceted practice we call shopping.