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TRADEMARKS IN AN ALGORITHMIC WORLD

Christine Haight Farley*

Abstract: According to the sole normative foundation for trademark protection—"search costs" theory—trademarks transmit useful information to consumers, enabling an efficient marketplace. The marketplace, however, is in the midst of a fundamental change. Increasingly, retail is virtual, marketing is data-driven, and purchasing decisions are automated by AI. Predictive analytics are changing how consumers shop. Search costs theory no longer accurately describes the function of trademarks in this marketplace. Consumers now have numerous digital alternatives to trademarks that more efficiently provide them with increasingly accurate product information. Just as store shelves are disappearing from consumers' retail experience, so are trademarks disappearing from their product search. Consumers may want to buy a product where the brand is the essential feature of the product such that the brand is the product, but they no longer need the assistance of a trademark to find the product.

By reflexively continuing to protect trademarks in the name of search costs theory, courts give only lip service to consumer interests without questioning whether trademarks are fulfilling any useful information function. In many cases, trademarks may actually misinform consumers by masking the identity of the producer or its distanced relationship with the trademark owner. Without having deliberately decided to do so, trademark law is now protecting "brands as property" without any supportive normative rationale. Removing the veil of search costs theory will enable courts to consider whether trademark protection is justified in particular cases.

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INTRODUCTION

Wearing smart glasses, Jamie scans the room. Google instantly spots a desk chair and zooms in on it. Google knows Jamie has been sitting for long periods, has recently purchased an increased amount of ibuprofen, and has an upcoming chiropractic appointment. Google now captions the framed chair with the best place to purchase it, considering price, availability, shipping time and cost, and the rewards programs in which Jamie is enrolled. Jamie has come to rely on these smart recommendations without ever deciding to do so. This chair will be a good fit as it is based on Jamie's body dimensions, desk area (based on data derived from the robot vacuum—another Google suggestion), and style preferences. Jamie had not previously decided to purchase a chair, but was ready to then, having already been primed by news articles on back pain and the photos of stylish offices that populated Jamie's various social media feeds.

Back at home, the smart speaker senses Jamie's presence using ultrasound technology. Using facial and voice recognition, it identifies Jamie and listens in for future shopping suggestions even without the wake-up command. It announces that a grocery delivery, based on data from the smart fridge, will be delayed until tomorrow. Before Jamie can process this news, it has preemptively made a dinner reservation at a new restaurant based on Jamie's habits, calendar, and a contact's review. When Jamie awakes in the night and turns to the Kindle, Amazon records the time and book title for information about sleep patterns and interests, which will factor into future purchase suggestions.

Whether the above scenario sounds dystopian or convenient,[1] it illustrates the change that is underway in retail today. Consumers are

1. A Super Bowl commercial for Alexa captures both the convenience and intrusion of these technologies. When Scarlett Johansson wakes up in the morning and speaks to Colin Jost, their Echo announces that it is ordering extra strength mouthwash. *See Scarlett Johansson and Colin Jost in Super Bowl Ad*, CNN, https://www.cnn.com/videos/media/2022/02/09/scarlett-johansson-colin-jost-super-bowl-ad-alexa-sot-france-nr-vpx.cnn/video/playlists/business-super-bowl/ (last visited Oct. 31, 2023).

increasingly relying on algorithms to make purchases.[2] These algorithms can accurately predict what a consumer will buy because the consumer's every move that can be surveilled has been collected and processed.[3] Rather than consumers deciding to make a purchase or choosing what to purchase, they may receive curated purchase suggestions based on data analytics, or even presumptive purchases that can be cancelled should the consumer disagree with the machine. Even when a consumer exercises agency by digitally capturing an image of something they like on a screen or in the physical world, one click unleashes the machines to do the searching and sifting of information that results in an instantaneous purchase suggestion. In any event, the suggestion of what to buy and from whom is thoroughly researched, factoring in all of the consumer's preferences. Even the consumer's satisfaction with that purchase becomes an input for future suggestions.

Significantly, missing from this description of the new retail experience are trademarks. In these scenarios, consumers are not relying on trademarks to decide what to purchase. Instead, products are suggested to them based on a multitude of factors in which the trademark may not figure. When a consumer approves a purchase, trademarks may not be visible in the transaction. The machines may process the trademark, but the consumer may not. The fact that trademarks are increasingly less prevalent and less relevant to consumers in deciding what to purchase in this algorithm-mediated marketplace has so far escaped notice in the law or literature.

This Article critically re-examines trademark law's rationale by bringing surveillance capitalism to bear on trademark law. According to the sole theoretical justification for the law, trademarks function as concise identifiers of the source of products.[4] By one glance, the trademark assures the consumer that the product is made by the same producer as a product they have previously experienced. Trademarks thus convey source information to consumers that assists them in selecting the product they desire. Articulated through the Chicago School of Economics as "search costs" theory, trademarks' social utility is that they enable an efficient marketplace by lowering consumer search costs.[5] Since consumers have no practical capacity to do actual research on a product's origin, characteristics, or quality, trademarks function as a stand-in for

2. *See infra* section III.C.

3. *See infra* section III.C.

4. *See infra* section I.B.

5. *See infra* section II.C.

such research. Trademarks make shopping efficient by instantaneously transmitting source information to consumers.

The increasingly algorithmic world we inhabit reveals the faulty premise on which the rationale of trademark law rests. How consumers will make purchases in the future—and have started to already—stands in sharp contrast to trademark law's account of how consumers behave in the marketplace. Trademark's rationale thus depends on a descriptive account of the marketplace and how consumers behave in it. The marketplace, however, is not static, and that account is now anachronistic. The proliferation of algorithmic decision-making in the marketplace today exposes the historical contingency of the theoretical basis of trademark law and thus undercuts its rationale.

A look backward teaches that it was a similar dramatic change in the marketplace that spawned the modern theory of trademarks. Retail underwent a paradigm shift in the early twentieth century, which is when both consumer choice and the information theory of trademarks emerged.[6] Before then, the problem that trademarks are said to address—efficiently finding and choosing which product to buy—was nonexistent. At that time, a product's source of origin was of no concern to consumers because the source was usually anonymous. Instead, consumers relied on their local shopkeeper to choose which products to make available to them.[7] The goodwill of consumers was an asset that the shopkeeper cultivated, not the producer.

We are now experiencing a second paradigm shift in retail where artificial intelligence (AI), algorithms, and advertising technology (adtech) play an increasingly central role. As with the pre-twentieth century marketplace, consumer choice is once again becoming mediated—this time by technology.[8] As a result, like the pre-twentieth century marketplace, consumers will make purchases without relying on trademarks.

Even the marketplace of the twentieth century, on which the trademark information and search costs theories were based, failed to function as described. Gradual changes in the marketplace, such as increased assignments and licensing, subcontracted production, and complicated supply chains, undermined the trademark information theory. The relationship between the trademark owner and the origin of the product has become increasingly attenuated. These realities of the marketplace diminish the information function of trademarks and, in some cases,

6. *See infra* section III.A.

7. *See infra* section II.A.

8. *See infra* section II.A.

trademarks actually conceal source information that may be relevant to consumers' purchasing decisions.[9] Search costs theory provides too simple an account of a much more complicated marketplace.

Thus far, neither scholarly critique nor the numerous inconsistent realities of the marketplace have been able to topple the persistence of search costs theory. However, with the advent of the AI-mediated marketplace we are now at an inflection point where search costs theory has met its justifying limit. This paradigm shift in the marketplace fundamentally undercuts the accepted rationale for protecting trademarks.

If we protect trademarks because they are efficient at conveying accurate information, it means that the cost of this protection outweighs the alternative, which would be less efficient or less accurate. The image of a consumer overwhelmed by a store shelf full of choices makes such a tradeoff seem necessary. Consumers today, however, possess alternative means to efficiently find, identify, and choose products. No longer must consumers rely solely on the informational shortcut provided by trademarks. Consequently, trademarks are vanishing from consumers' product searches.[10] Consumers' increased technological capacity enables them to search for products, not trademarks. Trademarks no longer need to stand in for actual product research, which was formerly impractical.

Trademarks' justifying theory is based on consumer agency in purchasing decisions. But even that is disappearing as retail has become increasingly virtual, marketing ever more data-driven, and purchasing decisions driven by AI. Predictive analytics is changing consumer behavior. When it comes to making purchasing decisions, consumers are increasingly delegating the search for products, product selection, and whether to purchase out of convenience. Marketers today know vast amounts about us and have increasingly sophisticated means of using this knowledge to predict our purchasing choices.[11] Consumers, in turn, are recognizing that algorithms can make purchasing decisions faster and better than they can.[12]

This mediation of consumers' purchasing decisions fundamentally changes the flow of information. Rather than communicating with consumers through trademarks, producers will be increasingly interested in conveying product information to machines. Machine-to-machine communication offers accuracy and efficiency unparalleled by

9. *See infra* sections II.B–II.C.

10. *See infra* Part IV.

11. *See infra* section III.C.

12. *See infra* section III.C.

trademarks.[13] In this marketplace, trademarks become superfluous—if not distracting—packets of information. Trademark law was supposed to foster a more decipherable marketplace for consumers. In surveillance capitalism, the marketplace is increasingly only decipherable by machines.[14]

Trademark law has thus far failed to acknowledge the fundamental disruptions to the marketplace brought about by digital technologies. Consumers used to watch ads; now, ads watch them.[15] Now that the marketer has near-perfect information about the consumer, the consumer has little need for the informational value of the trademark.

The AI-driven marketplace undermines trademark law's sole rationale for protection. Today, and more so in the future, trademarks may offer no informational value or search efficiency and may even obfuscate such informational values. The correspondence between trademarks and the search costs rationale has been lost. At a minimum, if the information conveyance function can now be performed without the aid of trademarks, at least in some cases, the diminished value of trademarks should be accounted for in the law. To analyze the cost to competition of trademark protection, the benefit—the informational value of trademarks—must be reconsidered in light of the current availability of alternative means.

Trademarks are being protected even though they are not functioning as posited. Perversely, as the informational value of trademarks has diminished, the commercial value and level of legal protection of many trademarks has increased.[16] These trademarks, or rather "brands," have a different function in the marketplace. They are less packets of source information that travel with the product, and more the products themselves.[17] The brand itself is the commodity exchanged. When consumers desire the brand as the product, they are not relying on the information function of trademarks. Brand value has supplanted trademark value, but trademark law has not yet acknowledged this changed marketplace function.

These new insights on the role of trademarks in the digital world provide the necessary foundation for considering the next big challenges for trademark law. Stuck in the twentieth century, trademark law is ill-prepared for the marketplace in the virtual world. In the metaverse, digital goods will be branded, but those brands will function to communicate

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13. *See infra* section III.C. Although this technology offers accuracy, it is also prone to manipulation. *See infra* section III.C.

14. *See infra* Part III.

15. *See infra* section III.C.

16. *See infra* section IV.A.

17. *See infra* section IV.A.

status, image, aspirations, and associations from one consumer to another. Digital goods have no meaningful source of origin or hidden qualities or characteristics.[18] They thus have no need for trademarks' informational function. Trademark law may well want to protect the actual functioning of brands in the metaverse, but it will need a new rationale to do so.

Trademark theory needs to acknowledge that trademarks are doing less work and doing it less often. Instead of protecting trademarks qua information, the law is protecting brands as property. Presently, brands enjoy robust protection because of unexamined application of search costs theory and not because of a considered determination that they are deserving of legal protection. This Article contends that the support for the economic welfare or social utility claim is now at its weakest point in the history of trademark law. It is time to recalibrate trademark law's normative foundations.

This Article proceeds as follows. Part I begins with an examination of the theoretical justification for trademark protection. The central idea is that trademarks assist consumers in the marketplace by imparting useful information in the most efficient manner. Accordingly, the theory that trademarks reduce consumer search costs now dominates trademark law. Part II observes that the search costs theory is fundamentally a descriptive account and, as such, is vulnerable to a changing marketplace. This Article briefly recounts the history of retail to show how trademark law developed as a response to a major change in the way consumers shopped. It then exposes the rationale for trademark protection as contingent on the particular way that marketplace functioned. Noting significant changes in the marketplace in the latter part of the twentieth century, Part II challenges the idea that trademarks invariably impart useful information to consumers. Trademark owners, who today are unlikely to be the producers of the products that bear their label, have become increasingly attenuated from the source of the products, and trademarks often mask complicated corporate relationships and untraceable supply chains. Part III contrasts search cost theory's imagined marketplace with today's AI-driven marketplace, where algorithms increasingly drive purchasing decisions. These data-driven purchases are highly efficient and are based on much more information than a trademark can impart. Consumers may not even be presented with trademarks in these transactions. Part IV argues that trademark law needs to acknowledge that trademarks are now doing less useful work for consumers and doing it less often. Rather than informing consumers about the source of the product, as search costs theory holds, many trademarks now aim to convey "brand attributes,"

18. *See infra* section IV.B.

such as associations, feelings, image, and status. The marketplace has shifted from trademarks to brands, but trademark law has failed to recognize this change because search costs theory cannot account for it. Instead of only protecting trademarks qua information, trademark law now protects brands as property. The uncritical acceptance of search costs theory has enabled the extension of trademark protection without even a question as to the social utility of such protection.

I. THE NORMATIVE RATIONALE FOR TRADEMARKS

A. Why Protect Trademarks?

The protection of trademarks is not easy to justify. As the United States Supreme Court explicitly observed in 1879 when evaluating the first federal trademark statute, trademarks, unlike copyrights and patents, do not involve creativity or inventiveness.[19] Because trademarks were not identified by framers of the United States Constitution as the subject of federal legislation, again unlike copyrights and patents,[20] in order to receive federal protection, trademarks must affect interstate commerce.[21] Thus, from the start, trademark law has been tied to the regulation of the marketplace without any more lofty policy goals. Early common law protection of trademarks was directed at routing out deceptive trade practices.[22] Early trademark law consistently acknowledged that as the law was to facilitate the marketplace, the protection of trademarks should be limited so as not to harm competition.[23] Especially in light of trademark

19. Trade-Mark Cases, 100 U.S. 82, 93–94 (1879).

20. *See* U.S. CONST. art. I, § 8, cl. 8.

21. *See Trade-Mark Cases*, 100 U.S. at 94–97.

22. *See* 1 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 5:2 (5th ed. 2020) ("In 19th century cases, trademark infringement embodied many of the elements of fraud and deceit from which trademark protection developed."); *see also, e.g.*, Pierce v. Guittard, 8 P. 645, 647 (Cal. 1885) ("[I]t is a fraud on a person who has established a business for his goods and carries it on under a given name or with a particular mark, for some other person to assume the same name or mark, or the same with a slight alteration, in such a way as to induce persons to deal with him in the belief that they are dealing with a person who has given a reputation to that name or mark.").

23. Beverly W. Pattishall, *Trade-Marks and the Monopoly Phobia*, 50 MICH. L. REV. 967, 968 (1952). Commentators, judges, and lawyers made frequent references to monopolies while discussing trademark policy. *See, e.g.*, EDWARD CHAMBERLIN, THE THEORY OF MONOPOLISTIC COMPETITION 59–61 (1933) (discussing how firms in certain markets differentiate their products to gain a degree of market power); Pattishall, *supra*, at 968–69 (stating that many jurisdictions have adopted the "anti-monopoly" ideology when determining trademark protection). The legislative history of the Lanham Act reveals challenges brought by the United States Department of Justice opposing the Act's creation of new and stronger rights by arguing that it was anticompetitive and might facilitate monopolies. *See* MCCARTHY, *supra* note 22, § 5:4.

law's interference with competition—as well as explicit accusations of monopoly rights[24]—courts, treatise authors, and commentators sought to justify why protecting mere "labels" was socially valuable.[25] Two related justifications for the protection of trademarks emerged: the informational value of trademarks and their enhancement of market efficiency.

B. Trademarks Convey Source of Origin Information to Consumers

Today, the idea that trademarks provide valuable information to consumers, empowering them to efficiently search for the product they want to purchase, dominates trademark law. In fact, it is now the sole theoretical justification for the law.[26]

According to the accepted justification, trademarks are consumers' helpers in the marketplace. The theory assumes that the source of the product is important to consumers, and that consumers seek out products from particular producers. It is accepted that consumers acquire knowledge about the product's source or producer based on their own prior experience with the products, the experience of others, and claims made by the producer.[27] This information then becomes a stand-in for actual research on the product's characteristics and quality, for which the consumer does not have capacity.[28] Because consumers are confronted with many choices within a product category and are not practically able to devote adequate time and consideration to most choices, they may make

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24. *See* MCCARTHY, *supra* note 22, § 5:4.

25. *See infra* sections II.B–II.C.

26. Although Frank Schechter's 1927 *Harvard Law Review* article did articulate an alternate theory of trademarks, that underlying theory of trademarks never made any serious headway, even if trademark dilution was eventually added to the Lanham Act. *See* Robert G. Bone, *Schechter's Ideas in Historical Context and Dilution's Rocky Road*, 24 SANTA CLARA COMPUT. & HIGH TECH. L.J. 469, 472, 475, 505 (2008). As discussed *infra* notes 272–273, Schechter argued that the law's protection should respond to the way trademarks actually functioned in the marketplace, which was "to identify a product as satisfactory and thereby to stimulate further purchases by the consuming public." *See* Frank I. Schechter, *The Rational Basis of Trademark Protection,* 40 HARV. L. REV. 813, 818 (1927) [hereinafter Schechter, *Rational Basis*]. The idea that trademarks have "selling power" has never been denied, but basing protection on that purpose has only seldom been acknowledged. *See, e.g.*, Mishawaka Rubber & Woolen Mfg. Co. v. S.S. Kresge Co., 316 U.S. 203, 205 (1942) (referring to trademark law as "the law's recognition of the psychological function of symbols").

27. *See* William M. Landes & Richard A. Posner, *Trademark Law: An Economic Perspective*, 30 J.L. & ECON. 265, 269 (1987) [hereinafter Landes & Posner, *Economic Perspective*] ("[S]uppose a consumer has a favorable experience with brand X and wants to buy it again. Or suppose he wants to buy brand X because it has been recommended by a reliable source or because he has had a favorable experience with brand Y, another brand produced by the same producer. Rather than investigating the attributes of all goods to determine which one is brand X or is equivalent to X, the consumer may find it less costly to search by identifying the relevant trademark and purchasing the corresponding brand.")

28. *See id.*

mistaken purchases. In this scenario, trademarks function as valuable packets of information that help consumers make informed purchasing decisions.[29] As stable bearers of immediate information, they enable an efficient marketplace. Trademarks are therefore worthy of protection because they ensure stability in the marketplace for both consumers and producers. Thus, trademark law protects any designation that consumers recognize as indicating the products' source of origin.[30]

This idea that trademarks provide valuable information to consumers dates back to the earliest trademark cases. In its first trademark case in 1871, the United States Supreme Court stated that "[t]he office of a trademark is to point out distinctively the origin, or ownership of the article to which it is affixed; or, in other words, to give notice who was the producer."[31] Later, in 1916, in its influential *Hanover Star Milling Co. v. Metcalf*[32] decision, the Court reiterated the utility of trademarks, stating that "[t]he primary and proper function of a trademark is to identify the origin or ownership of the article to which it is affixed."[33] Just recently, in

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29. *See* Robert G. Bone, *Hunting Goodwill: A History of the Concept of Goodwill in Trademark Law*, 86 B.U. L. REV. 547, 549 (2006) [hereinafter Bone, *Hunting Goodwill*] ("The core of trademark law, as it is understood today, is based on a model which I shall call the 'information transmission model.' This model views trademarks as devices for communicating information to the market and sees the goal of trademark law as preventing others from using similar marks to deceive or confuse consumers."); Glynn S. Lunney, Jr., *Trademark Monopolies*, 48 EMORY L.J. 367, 369 (1999) (explaining the prevailing idea that "a trademark provides consumers with information that they need (and cannot otherwise readily obtain) in order to match their desires to particular products"); Stephen L. Carter, *The Trouble with Trademark*, 99 YALE L.J. 759, 759 (1990) (describing trademarks as "packets of information"); Stacey L. Dogan, *What* Is *Dilution, Anyway?*, 105 MICH. L. REV. FIRST IMPRESSIONS 103, 106 (2006) ("[T]rademark law has never aimed to provide exclusive rights in marks, but has focused on preserving informational clarity in the marketplace."); Jake Linford, *Valuing Residual Goodwill After Trademark Forfeiture*, 93 NOTRE DAME L. REV. 811, 820 (2017) ("The law thus protects trademark**s** so that they can be used to convey accurate information . . . ."); William P. Kratzke, *Normative Economic Analysis of Trademark Law*, 21 MEM. ST. U. L. REV. 199, 216–17 (1991) (arguing the law should protect trademarks to facilitate the transmission of informational messages).

30. Lanham Act § 45, 15 U.S.C. § 1127; *see also* B&B Hardware, Inc. v. Hargis Indus., Inc., 575 U.S. 138, 142 (2015) ("The principle underlying trademark protection is that distinctive marks . . . can help distinguish a particular artisan's goods from those of others."); United Drug Co. v. Theodore Rectanus Co., 248 U.S. 90, 97 (1918) (noting a trademark "designate[s] the goods as the product of a particular trader" and "protect[s] his good will against the sale of another's product as his"); 1 ANNE GILSON LALONDE, GILSON ON TRADEMARKS § 1.03(1) (2023) ("[A] trademark . . . is accorded legal protection when it designates the source or origin of a product or service to distinguish that product or service from those of others, even if the consumer can't name that source. . . . [Trademark law] makes it easier for consumers to choose the products and services they want.").

31. Canal Co. v. Clark, 80 U.S. (13 Wall.) 311, 322 (1871).

32. 240 U.S. 403 (1916).

33. *Id.* at 412; *see also* Sidney A. Diamond, *The Historical Development of Trademarks*, 73 TRADEMARK REP. 222, 247 (1983) ("Trademarks are essential to the operation of a competitive system of free enterprise, for they are the only feasible means by which the consumer can select the

Jack Daniel's Properties, Inc. v. VIP Products LLC,[34] the Court gave emphasis to the notion that trademarks indicate source, designating this trademark's "'primary' function."[35] The Court acknowledged that "[t]rademarks can of course do other things: catch a consumer's eye, appeal to his fancies, and convey every manner of message."[36] But the Court emphasized that "whatever else it may do, a trademark is not a trademark unless it identifies a product's source (this is a Nike) and distinguishes that source from others (not any other sneaker brand)."[37] It further stated that the "primary mission" of the Trademark Act, known as the "Lanham Act," is plainly evident "[f]rom its definition of 'trademark' onward," as it "views marks as source identifiers—as things that function to 'indicate the source' of goods, and . . . 'distinguish' them from ones 'manufactured or sold by others.'"[38] In a case briefed and argued as a case about trademark fair use, the majority opinion used the word "source" forty-eight times in its relatively short, eleven-page opinion.[39]

In these cases, the Supreme Court has adopted and standardized the notion that trademarks convey information about the origin, ownership, or identity of the producer of the product. This idea subsumes dependent concepts. The first is that the information the trademark conveys is that all products bearing the trademark come from a single source. The second is that because trademarks identify one seller's products, they help consumers distinguish these products from products sold by others. The third is that consumers can rely on trademarks to help them distinguish among different sellers' products because this information is stable. These concepts combine to produce the social utility of trademark information conveyance. At a minimum, with the ability to distinguish among products, trademarks offer consumers convenience in the marketplace. They allow consumers to sort. It is sometimes stated that the distinguishing function of trademarks is essential, rather than just a convenience.[40] Whether or not consumers want to sort by trademark

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particular variety of product that he wishes to buy from among the multitude of choices that manufacturers now make available to satisfy individual tastes and individual preferences among the purchasing public.").

34. 599 U.S. __, 143 S. Ct. 1578 (2023).

35. *Id.* at 1583.

36. *Id.*

37. *Id.*

38. *Id.* at 1589 (quoting 15 U.S.C. § 1127).

39. *Id.* at 1578.

40. *See, e.g.*, Lunney, *supra* note 29, at 369 ("By identifying the source of goods, a trademark provides consumers with information that they need (and cannot otherwise readily obtain) in order to match their desires to particular products."); S. REP. NO. 79-1333, at 4 (1946) ("Trade-

depends on whether consumers have preexisting information about a producer.[41] There is a certain tautology in this theory: trademarks function by conveying source information, so long as the law protects them from being copied; consumers will rely on trademarks for this source information; consumers will even come to invest these designations with their product research; consumers can then conveniently match products in the marketplace with their desires. This social utility deserves legal protection.

C. Trademarks Reduce Consumers' Search Costs

The information function of trademarks adopted by the Supreme Court was further shaped by the Chicago School of Economics. William Landes and Richard Posner set their law and economics lens on trademark law in 1987 and offered a positive economic justification for trademarks. They rearticulated the prevailing understanding of how consumers rely on trademarks in the marketplace as a "search costs theory."[42] They argued that the social utility of trademarks is that they enable an efficient marketplace by lowering consumer search costs.[43] Trademarks perform this function by instantaneously transmitting source information to consumers to assist them to select the product they desire.[44] Applying this theory, Judge Posner explained that

> [t]he fundamental purpose of a trademark is to reduce consumer search costs by providing a concise and unequivocal identifier of

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marks . . . make possible a choice between competing articles by enabling the buyer to distinguish one from the other.").

41. *See, e.g.*, S. REP. NO. 79-1333, at 3 (1946) ("[One] purpose underlying any trade-mark statute . . . is to protect the public so it may be confident that, in purchasing a product bearing a particular trade-mark which it favorably knows, it will get the product which it asks for and wants to get.").

42. Landes & Posner, *Economic Perspective*, *supra* note 27, at 269; William M. Landes & Richard A. Posner, *The Economics of Trademark Law*, 78 TRADEMARK REP. 267, 272 (1988) [hereinafter Landes & Posner, *Economics of Trademark*]; *see also* Nicholas S. Economides, *The Economics of Trademarks*, 78 TRADEMARK REP. 523, 526–27 (1988) ("[S]ellers have much better information as to the unobservable features of a commodity for sale than the buyers. . . . Unobservable features, valued by the consumer, may be crucial determinants of the total value of the good. . . . [I]f there is a way to identify the unobservable qualities, the consumer's choice becomes clear . . . . The economic role of the trademark is to help the consumer identify the unobservable features of the trademarked product. This information is not provided to the consumer in an analytic form, such as an indication of size or a listing of ingredients, but rather in summary form, through a symbol which the consumer identifies with a specific combination of features."); S. REP. NO. 79-1333, at 4 (1946) (noting that trademarks "make possible a choice between competing articles by enabling the buyer to distinguish one from the other").

43. Landes & Posner, *Economic Perspective*, *supra* note 27, at 269.

44. *See id.*

> the particular source of particular goods. The consumer who knows at a glance whose brand he is being asked to buy knows whom to hold responsible if the brand disappoints and whose product to buy in the future if the brand pleases.[45]

Landes and Posner use the example of the consumer who spots the trademark Crest on a store shelf.[46] That consumer instantly knows the source of the toothpaste and can select it from the many others on offer. The source of that toothpaste is the Proctor and Gamble Company,[47] but the consumer need not know the actual identity of the producer, only that Crest means it comes from a single source. This is the information that enables the consumer to distinguish this product from other toothpastes, thus reducing their search costs.

The significant contribution made by the Chicago School to the normative theory of trademarks is simply the reframing of the information theory of trademarks as an efficiency concern. The focus is on the cost to consumers in terms of time and effort searching within a product category for a selection that best meets their needs and desires. According to Landes and Posner, without the aid of the trademark, consumers would be forced to spend time researching each product choice.[48]

45. Ty Inc. v. Perryman, 306 F.3d 509, 510 (7th Cir. 2002).

46. Landes & Posner, *Economics of Trademark*, *supra* note 42, at 278.

47. *Id.*

48. *See id.* at 277.

This economic rationale has been repeated and rearticulated by courts,[49] treatise authors,[50] and scholars[51] ever since. The Supreme Court

49. *See, e.g.*, Scandia Down Corp. v. Euroquilt, Inc., 772 F.2d 1423, 1429 (7th Cir. 1985) (noting that trademarks "convey valuable information to consumers at lower costs" because they "reduce the costs consumers incur in searching for what they desire, and the lower the costs of search the more competitive the market"); W.T. Rogers Co. v. Keene, 778 F.2d 334, 338 (7th Cir. 1985) ("The purpose [of trademarks] is to reduce the cost of information to consumers by making it easy for them to identify the products or producers with which they have had either good experiences, so that they want to keep buying the product (or buying from the producer), or bad experiences, so that they want to avoid the product or the producer in the future."); Brennan's, Inc. v. Brennan's Rest., L.L.C., 360 F.3d 125, 132 (2d Cir. 2004) ("[I]f the mark is not recognized by the relevant consumer group, a similar mark will not deceive those consumers and thereby increase search costs."); New Kids on the Block v. News Am. Publ'g., Inc., 971 F.2d 302, 305 n.2 (9th Cir. 1992) ("[T]rademarks reduce consumer search costs by informing people that trademarked products come from the same source."); Kohler Co. v. Moen Inc., 12 F.3d 632, 643 (7th Cir. 1993) ("Innovation in product design and marketing for the purpose of enhancing producer identity reduces the costs to consumers of informing themselves about the product source so that they can . . . continue purchasing the products from particular producers . . . ."); Kraft Foods Grp. Brands LLC v. Cracker Barrel Old Country Store, Inc., 735 F.3d 735, 739 (7th Cir. 2013) ("A trademark's value is the saving in search costs made possible by the information that the trademark conveys about the quality of the trademark owner's brand."); Bretford Mfg., Inc. v. Smith Sys. Mfg. Corp., 419 F.3d 576, 579 (7th Cir. 2005) ("Trademark law is designed to reduce the costs customers incur in learning who makes the product . . . ."); Bos. Duck Tours, LP v. Super Duck Tours, LLC, 531 F.3d 1, 14 (1st Cir. 2008) (noting that "the primary justifications for protecting trademarks" are "to aid competition and lower consumers' search costs"); Union Nat'l Bank Tex., Laredo v. Union Nat'l Bank Tex., Austin, 909 F.2d 839, 844 (5th Cir. 1990) ("[T]rademarks are 'distinguishing' features which lower consumer search costs and encourage higher quality production by discouraging free-riders.").

50. *See, e.g.*, MCCARTHY, *supra* note 22, § 2:3 ("[A] trademark is a symbol that allows a purchaser to identify goods or services that have been satisfactory in the past . . . . [T]hey reduce the customer's costs of shopping and making purchasing decisions."); GILSON LALONDE, *supra* note 30, § 1.03(6) ("Trademarks enable consumers to purchase the specific goods they intend to purchase, reduce search costs, and help avoid deception in the marketplace.").

51. *See, e.g.*, Carter, *supra* note 29, at 759 ("[Trademarks] lower consumer search costs, thus promoting the efficient functioning of the market."); Stacey L. Dogan & Mark A. Lemley, *Trademarks and Consumer Search Costs on the Internet*, 41 HOUS. L. REV. 777, 787–88 (2004) [hereinafter Dogan & Lemley, *Trademarks and Consumer Search*] ("Consumers benefit because they don't have to do exhaustive research or even spend extra time looking at labels before making a purchase . . . ."); Robert G. Bone, *Taking the Confusion Out of "Likelihood of Confusion": Toward a More Sensible Approach to Trademark Infringement*, 106 NW. U. L. REV. 1307, 1311–12 (2012) [hereinafter Bone, *Trademark Infringement*] ("[T]rademarks reduce the costs to consumers of searching for product information."); Bone, *Hunting Goodwill*, *supra* note 29, at 555 ("[P]rotecting the source identification and information transmission function of marks . . . helps to reduce consumer search costs."); William McGeveran, *Rethinking Trademark Fair Use*, 94 IOWA L. REV. 49, 54 (2008) (noting that trademarks "reduce inefficient search costs"); Clarisa Long, *Dilution*, 106 COLUM. L. REV. 1029, 1056–59 (2006) ("[T]rademarks serve as source identifiers for consumers and thereby reduce consumer search costs."); Maureen A. O'Rourke, *Defining the Limits of Free-Riding in Cyberspace: Trademark Liability for Metatagging*, 33 GONZ. L. REV. 277, 307 n.114 (1997) ("One of the goals of trademark law is to reduce consumer search costs."); Margreth Barrett, *Internet Trademark Suits and the Demise of "Trademark Use,"* 39 U.C. DAVIS L. REV. 371, 376–78 (2006) ("[P]reventing misleading uses of marks that may confuse consumers about the source, sponsorship, or affiliation of the products or services they buy . . . reduces consumer search costs . . . ."); Ariel

has adopted this refinement of trademark theory, stating in *Qualitex Co. v. Jacobson Products Co.*[52] that "trademark law . . . 'reduce[s] the customer's costs of shopping and making purchasing decisions.'"[53] The Court elaborated that a trademark "quickly and easily assures a potential customer that *this* item—the item with this mark—is made by the same producer as other similarly marked items that he or she liked (or disliked) in the past."[54]

Most commentators accept the idea that trademarks "facilitate the transmission of accurate information to the market,"[55] whether they support or critique the extent of the law's protections of trademarks.[56] The search costs theory has become the blindingly dominant theoretical justification of trademark law.[57] In fact, no alternative account of

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Katz, *Beyond Search Costs: The Linguistic and Trust Functions of Trademarks*, 2010 BYU L. REV. 1555, 1557 (2010) ("[T]rademarks are socially beneficial because they reduce consumer search costs."); Michael Grynberg, *The Road Not Taken: Initial Interest Confusion, Consumer Search Costs, and the Challenge of the Internet*, 28 SEATTLE U. L. REV. 97, 97–99 (2004) (proposing a new framework, focused on consumer search costs, for analyzing initial interest claims); Lunney, *supra* note 29, at 432 ("Trademarks can, thus, reduce the searching costs involved in identifying the desired product."); David W. Barnes, *Trademark Externalities*, 10 YALE J.L. & TECH. 1, 35–36 (2007) ("Because reducing consumers' search costs is one of the goals of trademark law, preventing this increase in search costs is a benefit of recognizing exclusive rights."); Linford, *supra* note 29, at 819 ("Trademark law is thus efficient to the extent it reduces consumer search costs . . . .").

52. 514 U.S. 159 (1995).

53. *Id.* at 163–64 (alteration in original) (quoting 1 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 2.01(2) (3d ed. 1994)).

54. *Id.* at 164.

55. *E.g.*, Bone, *Hunting Goodwill*, *supra* note 29, at 548; *id.* (noting that trademark law's "core mission, as it is understood today, is to facilitate the transmission of accurate information to the market").

56. Some scholars whose work argues for checks on the expansion of trademark rights support the search costs theory because the alternative—a property theory of trademarks—would likely produce further expansion of rights that would not be in the consumers' interest. *See, e.g.*, Dogan & Lemley, *Trademarks and Consumer Search*, *supra* note 51, at 782 ("We argue that, cumulatively, these two axes of trademark expansion pose a grave danger to the law's information-facilitating goals."); Bone, *Trademark Infringement*, *supra* note 51, at 1378 (proposing "restructuring the infringement test so that it more closely fits the policies trademark law should serve"); Stacey L. Dogan & Mark A. Lemley, *A Search-Costs Theory of Limiting Doctrines in Trademark Law*, 97 TRADEMARK REP. 1223, 1223 (2007) [hereinafter Dogan & Lemley, *Search-Costs*] ("While the search costs theory provides a compelling argument for trademark rights, it also compels an equally important—but often overlooked—set of principles for defining and limiting those rights.").

57. *See* Mark A. Lemley, *The Modern Lanham Act and the Death of Common Sense*, 108 YALE L.J. 1687, 1690 (1999) (citing Nicholas Economides, George J. Stigler, and others who fit within the Chicago School approach and stating that trademarks "communicate useful information to consumers, and thereby reduce consumer search costs"); Carter, *supra* note 29, at 762 ("The economic argument for protecting marks is straightforward and quite forceful. The principal benefit of trademark protection is that it lowers consumer search costs." (footnote omitted)).

trademark policy even exists.[58] The theory has so firmly taken hold that legal theorists have been unable uproot it.[59]

The increasingly algorithmic world we inhabit exposes trademark law's rationale as inadequate. The proliferation of algorithmic decision-making undercuts the search costs theory by revealing its faulty premise. The search costs theory depends on a descriptive account of the marketplace and how consumers behave in it. This account hinges on a series of descriptive claims about how a consumer makes purchasing decisions. First, consumers are often motivated to make purchases based on previous positive experiences with a particular producer and their interest in repeating that experience. Second, consumers have limited ability to research products or their producers and rely on trademarks as a proxy for such information. Third, consumers are often unwary and easily distracted. Fourth, bad actors sometimes take advantage of this situation. Based on the consistent repetition of these descriptive claims in trademark cases alone, one could form a distinct mental picture of the marketplace: the consumer stands in a store before shelves of products from many different producers scanning for the particular trademark that has previously been satisfactory. This picture, however, stands in sharp contrast to the way that Jamie made purchases as described at the beginning of the Article.

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58. Barton Beebe, *The Semiotic Analysis of Trademark Law*, 51 UCLA L. REV. 621, 624 (2004); *see also* Mark P. McKenna, *A Consumer Decision-Making Theory of Trademark Law*, 98 VA. L. REV. 67, 75 (2012) [hereinafter McKenna, *Consumer Decision-Making Theory*] ("[I]t would be nearly impossible to overstate the extent to which the search costs theory now dominates as *the* theoretical justification of trademark law." (emphasis in original)); Barton Beebe, *Search and Persuasion in Trademark Law*, 103 MICH. L. REV. 2020, 2069 (2005) [hereinafter Beebe, *Search and Persuasion*] ("The received orthodoxy [is] that trademark law exists to minimize our search costs . . . ."); Deven R. Desai, *The Chicago School Trap in Trademark: The Co-Evolution of Corporate, Antitrust, and Trademark Law*, 37 CARDOZO L. REV. 551, 557 (2015) ("[T]he core logic of the Chicago School has not only taken over and now drives corporate and antitrust law but also drives modern trademark law.").

59. *See, e.g.*, Jeremy N. Sheff, *Marks, Morals, and Markets*, 65 STAN. L. REV. 761, 762 (2013) (arguing that search costs theory cannot account for much of trademark law's recent development); Jeremy N. Sheff, *Biasing Brands*, 32 CARDOZO L. REV. 1245, 1254 (2011) [hereinafter Sheff, *Biasing Brands*] ("[T]he search-costs model is descriptively inaccurate, or at least incomplete . . . ."); Desai, *supra* note 58, at 619 ("[T]he search costs and competition rationale behind current trademark law and theory flows from and serves the Chicago School vision of autonomous firms wielding all resources to maximize wealth as firms see fit."); McKenna, *Consumer Decision-Making Theory*, *supra* note 58, at 72 ("Rather than targeting search costs or confusion in and of themselves, trademark law should instead focus on deceptive practices that interfere with consumers' purchasing decisions."); Irina D. Manta, *Hedonic Trademarks*, 74 OHIO ST. L.J. 241, 247 (2013) ("[T]he search-costs theory is incomplete, as scholars have pointed out, and does not comport with some of the existing trademark doctrines."); *see also* Ann Bartow, *Likelihood of Confusion*, 41 SAN DIEGO L. REV. 721, 816 (2004) ("The educational and informational assistance trademarks provide to consumers is often overstated . . . .").

The changing technological landscape undermines the dominant rationale of trademark protection by exposing the historical contingency of its descriptive account. New technology demonstrates that the marketplace that served as the basis of the justification for protecting trademarks is rapidly becoming obsolete.

II. UNDERMINING TRADEMARK'S RATIONALE

A. The Historically Contingent Value of Trademarks

The digital marketplace that consumers encounter today has little connection to search costs theory. Contrasting the digital marketplace with search costs theory exposes the contingency of this theory on a particular conception of the marketplace. In a Seventh Circuit opinion that is thought to be the source of Landes and Posner's search costs theory,[60] Judge Easterbrook stated that "[t]rademarks help consumers to select goods."[61] Trademark assistance consists of "identifying the source of the goods" and thus "convey[ing] valuable information to consumers."[62] Significantly for Easterbrook and the Chicago School, this assistance "lower[s] the costs of search."[63] Easterbrook also attached trademark infringement to the search costs theory, explaining that "[c]onfusingly similar marks make consumers' task in searching for products harder."[64]

Considering that this is the entire theoretical basis upon which the legal protection of trademarks rests, it is surprisingly limited. The theory of trademarks or information regulation it offers is inseparable from its description of how consumers interact with trademarks in the contemporary marketplace. As a descriptive account of the contemporary

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60. *See* Jerre B. Swann, *The Evolution of Trademark Economics—from the Harvard School to the Chicago School to WIPO 2013—as Sheparded by INTA and* The Trademark Reporter, 104 TRADEMARK REP. 1132, 1135 (2014). Shortly after the *Scandia Down Corp. v. Euroquilt, Inc.*, 722 F.2d 1423 (1985), opinion by Judge Easterbrook, Judge Posner wrote the majority opinion in a case and rearticulated the search costs theory. *See* W.T. Rogers Co. v. Keene, 778 F.2d 334, 338 (7th Cir. 1985). While the *Scandia Down* opinion cites no authority for the search costs theory—it is stated as if a common understanding—the *W.T. Rogers* opinion cites both *Scandia Down* and a student note from 1984. *See id.* (first citing Peter E. Mims, Note, *Promotional Goods and the Functionality Doctrine: An Economic Model of Trademarks*, 63 TEX. L. REV. 639, 656–62 (1984); and then citing *Scandia Down*, 772 F.2d at 1429–30). Mims' note relies on Ralph H. Folsom & Larry L. Teply, *Trademarked Generic Words*, 89 YALE L.J. 1323 (1980). Mims, *supra*, at 641 n.7, 658 n.102. The Folsom and Teply article adopts the economic concept of search costs from George J. Stigler, *The Economics of Information*, 69 J. POL. ECON. 213 (1961), and applies it to trademark law, apparently for the first time. Folsom & Teply, *supra*, at 1335 nn.67–68 & 70.

61. *Scandia Down*, 772 F.2d at 1429.

62. *Id.*

63. *Id.*

64. *Id.* at 1430.

marketplace, it is vulnerable. First, Seventh Circuit judges and University of Chicago Law School professors are probably ill-suited to offer such a descriptive account. Search costs theory may, in fact, be based more on intuition or imagination than observation or empirical evidence.[65] Often when describing search costs theory, the example that proponents proffer to illustrate the theory is the ordinary consumer in a supermarket searching the shelves.[66] In the 1980s, the person ordinarily in the supermarket would most likely have been a housewife. It is possible, then, that the descriptive account is built on an outmoded stereotype.[67]

Second, and more significant, search costs theory is vulnerable as a descriptive account due to its historical contingency. Even if it accurately described the 1980s marketplace, search costs theory should not be mistaken for a universal principle. Just as the above description of the digitally enabled consumer does not match up with search costs theory's account, a review of retail's history in America reveals it does not accurately describe the purchasing process of ordinary consumers in earlier marketplaces. Such time-stamped snapshots of the marketplace reveal search costs theory's limits.

Trademarks emerged to respond to a specific marketplace. Trademark law is based on a particular conception of that marketplace and how consumers function within it. But that marketplace is time-bound,

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65. It could also be argued that the premises that consumers want to spend less time shopping or that shopping is just about buying something you need, do not accurately describe all consumers. Today, retail firms offer consumers various in-store and online experiences, such as AR, because they have found that consumers value spending time in this way. *See* Bobby Marhamat, *Five In-Store Customer Experiences Every Retailer Should Provide*, FAST CO. (Jan. 14, 2022), https://www.fastcompany.com/90712962/five-in-store-customer-experiences-every-retailer-should-provide (last visited Oct. 13, 2023). In the new experience economy, consumers buy so that they may shop more. *Cf. id.*

66. *See, e.g.*, MCCARTHY, *supra* note 22, § 2:5 ("No busy working person in a developed society has hours to spend agonizing anew over every single purchase at the supermarket or elsewhere."); Lunney, *supra* note 29, at 393 ("Consumer desire for, and the efficiency advantages associated with, trademark protection that will enable consumers to identify easily the particular soda they want from a shelf full of sodas seem reasonably clear."); Economides, *supra* note 42, at 527–28 ("A typical example of such a product is a bottle of diet COKE, the cola beverage. Information on the bottle and label give little indication of the taste. The trademark identifies the product. A consumer is typically offered a free introductory bottle, or buys the first bottle to sample it. From his experience he is then able to decide rationally as an informed consumer about his future choices between diet COKE and all other goods.").

67. In the context of trademark infringement litigation, Ann Bartow has similarly observed judges' tendency "to inappropriately rely on personal intuition and subjective, internalized stereotypes," Bartow, *supra* note 59, at 723, and the impact in the law of such gender stereotyping. *See id.* at 776–92; *see also id.* at 777 ("[O]ne notices that many of the most demeaning conceptions of consumers, and of their intelligence and discriminatory powers (or lack thereof), tend to be articulated in trademark cases in which the underlying goods and services are primarily designed for, marketed to, or purchased by women.").

resembling neither today's marketplace nor the marketplace of the nineteenth and early twentieth century. The first reported federal trademark case was decided in 1844.[68] Just as the marketplace has changed between 1987 and now, it certainly underwent significant changes between 1844 and 1987.[69] The changes in the law over that period reflect those changes in the marketplace.[70] However, since Landes and Posner released their article in 1987, trademark law's conception of the marketplace has been shockingly stable.[71]

Search costs theory is a refinement of a preexisting idea about trademarks developed in common law that trademarks provide consumers with relevant information about the products. That idea was developed in response to a perception about how consumers navigated the marketplace that then existed.[72] The rationale of trademark protection has depended on the particular characteristics of the marketplace. Should those characteristics fundamentally change, the rationale for trademark protection should be adjusted accordingly.

Although trademark rights developed in the courts beginning in the 1840s in the United States, they were on shaky ground until the first decades of the twentieth century when they began to find their bearings. Consumers had little need for trademarks until then.[73] In the eighteenth and nineteenth centuries, consumers did not behave as search costs theory suggests.

The first retail establishments in the early nineteenth-century United States were local general stores run by shopkeeper-owners.[74] During this time, consumers typically made all of their purchases at their local general

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68. *See* FRANK I. SCHECHTER, THE HISTORICAL FOUNDATIONS OF THE LAW RELATING TO TRADE-MARKS 134 (1925) (citing Taylor v. Carpenter, 23 F. Cas. 742 (C.C.D. Mass. 1844) (No. 13,784)). The first state trademark case was decided in 1837. *Id.* (citing Thompson v. Winchester, 36 Mass. (19 Pick.) 214 (Mass. 1837)). *See generally id.* ("Up to 1870 only sixty-two trade-mark cases in all were decided by American courts.").

69. *See* SUSAN STRASSER, SATISFACTION GUARANTEED: THE MAKING OF THE AMERICAN MASS MARKET 19 (1989).

70. *See supra* section II.B.

71. *See, e.g.*, Peaceable Planet, Inc. v. Ty, Inc., 362 F.3d 986, 992 (7th Cir. 2004) (noting the importance and context of identifiability to the consumer within trademark); *see also* Desai, *supra* note 58, at 555 (discussing the influence of the Chicago School of Law and Economics on antitrust and corporate law).

72. Landes & Posner, *Economic Perspective*, *supra* note 27, at 269.

73. *See* Fred Mitchell Jones, *Retail Stores in the United States 1800–1860*, 1 J. MKTG. 134, 134 (1936).

74. *See id.*; *see also* PAMELA WALKER LAIRD, ADVERTISING PROGRESS: AMERICAN BUSINESS AND THE RISE OF CONSUMER MARKETING 15 (2020).

store.[75] The shopkeeper sourced the merchandise from the traveling salesperson who worked for large wholesale houses and manufacturers from the large cities.[76] In this way, shopkeepers "curated" the consumer products available to consumers. Consumers had little to no choice within a product category.[77] The problem of efficiently choosing *which* product to buy was nonexistent.

Consumers knew their local shopkeepers and had to trust them. Shopkeeper's goodwill was generally dependent on the quality of the products that they sold.[78] Customers mostly bought on credit, which also produced strong loyalty.[79] It would not have occurred to consumers to care about the source of origin of the products; their satisfaction with the quality of products would affect the shopkeeper's goodwill, not the producer's.[80]

The source of the products on offer was anonymous. At this time, it would not have been clear to consumers whether products came from a single source or not. Most of the products sold at these local shops were unbranded.[81] Some products were sold in packages stamped with the shopkeeper's name as "sole agent."[82] The source of origin of the products was either perfectly obvious because it was local, or immaterial because the interface with the shopkeeper was the only source of concern to consumers.[83] Just as AI is today, the shopkeeper was an intermediary between the consumer and their purchasing decision and succeeded in this role to the extent that they satisfied their customers' desires.

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75. *See* STEPHEN H. PROVOST, THE GREAT AMERICAN SHOPPING EXPERIENCE 1–2 (2021) (noting that most towns only had one general store and that general stores supplied all the necessities); Mitchell Jones, *supra* note 73, at 134 ("The inhabitants of the thinly settled regions had no other source of supply of importance [than general stores], with the exception of the peddler, for those goods which they required and could not produce by their own efforts.").

76. SUSAN V. SPELLMAN, CORNERING THE MARKET: INDEPENDENT GROCERS AND INNOVATION IN AMERICAN SMALL BUSINESS 83 (2016). Traveling salesmen were called "drummers" because they drummed up business for wholesalers. *Id.*; *see also* STRASSER, *supra* note 69, at 19.

77. QUENTIN R. SKRABEC, JR., THE 100 MOST SIGNIFICANT EVENTS IN AMERICAN BUSINESS 119 (2012) (describing how Heinz used branding to change the way consumers interacted at the store by differentiating his products from "unlabeled competitors" so they ask for the Heinz brand name).

78. *See* Bone, *Hunting Goodwill*, *supra* note 29, at 575.

79. BENJAMIN LORR, THE SECRET LIFE OF GROCERIES 25 (2021).

80. *See* Bone, *Hunting Goodwill*, *supra* note 29, at 575.

81. SKRABEC, *supra* note 77, at 119 ("Most food products in the 1800s were sold as unbranded commodities in barrels, jars, and bags. Manufacturers sold to wholesalers who then distributed barrels of pickles, ketchup, flour, and so on to local stores.").

82. JAMES D. NORRIS, ADVERTISING AND THE TRANSFORMATION OF AMERICAN SOCIETY, 1865–1920, at 14 (1990).

83. *See* Bone, *Hunting Goodwill*, *supra* note 29, at 575. A 1920 book argued against expanded trademark protection because it diminished the role of merchants as expert advisers to the consuming public. SIDNEY WEBB & BEATRICE WEBB, INDUSTRIAL DEMOCRACY 683–84 (1920).

Also analogous to online shopping today, consumers in this period did not interact with products until after they were purchased. Consumers often passed their shopping lists to clerks who collected the products for the consumer.[84] Inaccessible to the consumer, products were typically stored on shelves shielded by a counter and clerk.[85]

Marketplaces began to shift from local to national in the early part of the twentieth century with the technology of mass production.[86] One innovation that changed retail was the development of packaging materials. Pre-cut cardboard boxes, invented in 1890, tin cans, paper bags, and card stock packaging allowed manufacturers to sell more products in packages.[87] Branding followed directly from this development. If products were sold in a box, then a name had to be put on the box. Products previously sold in bulk and unlabeled suddenly became branded.[88]

Advertising followed the emergence of national markets.[89] Producers used advertising to convince consumers to abandon homemade and bulk goods and in exchange to buy factory-produced branded merchandise.[90] Because these goods often could not compete on cost or quality, advertisers resorted to appeals that played on emotions and status consciousness.[91] If producers' direct appeals to consumers in radio advertisements were successful than consumers might ask for these products in their local stores. In this way, early radio ads could function as brand name prescription drug ads do today when they tell consumers to ask their doctor for a particular brand. Advertisers relied on customers to request items from retailers who did not carry the product.[92] This was the first instance of trademarks serving as a proxy for buyer security. The message was clear: trust trademarks; seek them out. Trademark practitioner and historian Frank Schechter quoted author H.G. Wells on the advent of this shift: "[F]irms reach[ed] their hands over the retail

84. *See* LORR, *supra* note 79, at 23–25.

85. *Id.*

86. *See* STRASSER, *supra* note 69, at 6–7, 15–17.

87. LORR, *supra* note 79, at 26.

88. One example is National Biscuit Company, the manufacturer of Ritz Crackers. *Id.* at 27.

89. Desai, *supra* note 58, at 557 ("[A]dvertising and branding practices helped firms move beyond local retailers and reach consumers directly."); *see also* Edward S. Rogers, *Some Historical Matter Concerning Trade-Marks*, 62 TRADEMARK REP. 239, 253 ("[T]he increased use of trade marks, brands and other identifying indicia in present day business . . . is directly traceable to the more extended distribution of products and this in turn is either the cause or the effect of modern advertising.").

90. *See, e.g.*, SKRABEC, *supra* note 81, at 119 (noting that Heinz used advertising to convince consumers to buy Heinz-branded products instead of bulk goods).

91. *See* Bone, *Hunting Goodwill*, *supra* note 29, at 580–81.

92. *See* STRASSER, *supra* note 69, at 21.

tradesman's shoulder, so to speak, and offer[ed] their goods in their own name to the customer."[93]

Shopkeepers, however, remained an intermediary between consumers and national brands for some time. Advertising enabled consumers to recall a brand name, but they still had to ask the store clerk to retrieve products from the walls of shelving behind the counter.[94] Therefore, shopkeepers could substitute other manufacturers' products if they did not carry that brand or preferred to sell another.[95]

Consumers were not able to examine products without the assistance of a shopkeeper until the 1916 invention of the self-service store.[96] Modeled on the invention of the cafeteria, consumers, supplied with a basket, followed a set pathway past every packaged product for sale.[97] This was a significant marketplace shift, as the absence of the intermediary shopkeeper meant that the items now had to speak for themselves.

The nature of shopping fundamentally changed at this moment. Now shopping was an opportunity to exercise personal preference. Selection of the right product was presented as a weighty decision. Consumers were encouraged to demonstrate their skill in making purchasing choices that saved money and provided quality products for their families.[98]

Other retail innovations bolstered consumer choice. National catalog companies, such as Montgomery Ward and Sears and Roebuck, brought unprecedented choices to every household in the United States.[99] Supermarkets, which came onto the scene in 1930, stunned consumers with the sheer volume of products for consideration in an unmediated manner.[100] The shopping cart was invented in 1937 because, for the first time, consumers were buying more products than they could carry.[101] Supermarkets quickly proliferated. In just twenty years, nearly every

93. Schechter, *Rational Basis*, *supra* note 26, at 818 n.21 (emphasis omitted).

94. STRASSER, *supra* note 69, at 21.

95. *See id.*

96. LORR, *supra* note 79, at 28.

97. The store was called the Piggly Wiggly because customers charged through like piggies to a trough. *See id.* at 29. This was just three years after the assembly line was first employed by Henry Ford. *Id.* at 29–30.

98. *Id.* at 30.

99. VICKI HOWARD, FROM MAIN STREET TO MALL: THE RISE AND FALL OF THE AMERICAN DEPARTMENT STORE 34 (2015).

100. King Kullen was the first supermarket, opening in 1930, and its "stores were warehouse-size shops." KIM HUMPHERY, SHELF LIFE: SUPERMARKETS AND THE CHANGING CULTURES OF CONSUMPTION 68 (1998).

101. *See* LORR, *supra* note 79, at 33.

grocery store in the United States was a supermarket.[102] Over the course of a century, local shops gave way to department stores and supermarkets, then to discount chains and big-box retailers, then to suburban shopping malls. With these marketplace changes, the consumer experience was transformed.

Trademark law was developed to respond to this changed marketplace and consumer experience.[103] The first draft of what would eventually become the Lanham Act emerged in 1921,[104] just after branded products had started to become prevalent and firms were investing in brand names.[105] By the time the Lanham Act passed in 1946,[106] supermarkets had made their debut and the postwar households had an abundance of product choices. When search costs theory emerged in 1987, the American shopping mall and big box stores were opening everywhere.[107] Trademark law and theory was responsive to the changing marketplace from 1921 to 1987.

This brief history of shopping reveals that retail underwent a paradigm shift in the early twentieth century when consumer choice emerged. We are now experiencing the second paradigm shift in retail, in which consumer choice is once again becoming mediated—this time by AI. In the first shift, consumers shifted their trust in the shopkeeper to trademarks. In the second shift, consumers are shifting their reliance on trademarks to AI. The first shift produced trademark law. Trademark law should be responsive to the second shift.

B. The Depreciation of Trademark's Information Function

Search costs theory presupposes the stability of the information-carrying function of trademarks and assumes, without question, that consumers can trust in the trademark. Sometimes, however, consumers' trust in trademarks is misplaced.

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102. *See id.*

103. *See* Mark Bartholomew, *Advertising and the Transformation of Trademark Law*, 38 N.M. L. REV. 1, 13–14 (2008) (explaining how the rise of advertising and mass production of goods changed the landscape of trademark law); Bone, *Hunting Goodwill*, *supra* note 29, at 576–78; Walter J. Derenberg, *Trade-Marks Ante Portas*, 52 YALE L.J. 829, 829 (1943) ("Today, with the tremendous development in modern methods of selling and advertising, trade-mark protection has become a matter of national concern . . . .").

104. Christine Haight Farley, *The Lost Unfair Competition Law*, 110 TRADEMARK REP. 739, 775 (2020).

105. Bartholomew, *supra* note 103, at 14 ("By 1920, however, advertising had changed. . . . Salesmanship of a brand became important; simple announcements of a product's availability and content were insufficient.").

106. Farley, *supra* note 104, at 775; *see* 15 U.S.C. § 1051.

107. MARLENE TARG BRILL, AMERICA IN THE 1980S, at 74 (2010).

Even before the age of algorithms, trademarks' "information transmission" theory[108] has been vulnerable to facts on the ground. As the marketplace has changed over time, the simple account search costs theory presents often fails to correspond with how trademarks are used. In numerous circumstances, trademarks fail to inform consumers about the source of the product, and in some, they actually conceal information that may be relevant to the consumer's purchasing decision. Nevertheless, the theory of trademarks prevails. It has artfully been stretched to fit new realities, but the consumers' interest is disserved.

Trademark doctrine reinforces the idea that when a consumer looks at a product and asks, "Who are you?," trademarks answer the question with, "It is me!"[109] The implication is that the consumer knows who that is.[110] But exactly who does the consumer think it is?

Although trademark law holds that trademarks indicate to consumers the source of origin of products, the concept of "origin" has not been stable over time. One might expect origin to refer to the place from which the product came, and it may have, back when products were made in one place. Today, origin refers instead to the entity that owns the trademark.

As "origin" has been a slippery concept in trademark law, the Supreme Court found it necessary to address its meaning in 2003 in *Dastar Corp. v. Twentieth Century Fox Film Corp*.[111] The Court concluded that "the most natural understanding of the 'origin' of 'goods'—the source of wares—is the producer of the tangible product sold in the marketplace."[112] The producer of the tangible product, then, is to whom the consumer thinks the trademark refers.

Even the term "producer," however, has morphed over time in trademark law. In the beginning, the producer was the manufacturer of the tangible product. The trademark owner has not been the actual manufacturer of most consumer products, however, for several decades

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108. *See* Bone, *Hunting Goodwill*, *supra* note 29, at 549 (coining this term).

109. In determining whether a term is generic, courts may employ the "who are you?/what are you?" test. *See, e.g.*, Off. Airline Guides, Inc. v. Goss, 6 F.3d 1385, 1391 (9th Cir. 1993) (citation omitted) (noting that if the name answers the question "what are you?," it is deemed generic and unprotectable as a trademark, whereas if the name answers the question "who are you?," it may be protected as a trademark).

110. Consumers need not know who exactly is the source of the marked products so long as they understand the products emanate from a single, albeit anonymous, source. MCCARTHY, *supra* note 22, § 3:12.

111. 539 U.S. 23 (2003).

112. *Id.* at 31; *see also* GILSON LALONDE, *supra* note 30, § 1.03(1) ("The source or origin of goods under trademark law is 'the producer of the tangible product sold in the marketplace.'" (quoting *Dastar Corp.*, 539 U.S. at 31)).

now.[113] The Ninth Circuit in *Siegel v. Chicken Delight, Inc.*[114] explicitly recognized that "[t]he historical conception of a trade-mark as a strict emblem of source of the product to which it attaches has largely been abandoned."[115] Even in *Dastar*, the Court permitted that "[t]he concept might be *stretched* . . . to include not only the actual producer, but also the trademark owner who commissioned or assumed responsibility for ('stood behind') production of the physical product."[116]

Search costs theorists have stretched the concept of origin even further, completely severing the relationship with any entity. Origin is instead a conceptual reference. For instance, in a companion article to Landes and Posner's, Economides asserted that "[t]he consumer of NABISCO WHEAT THINS knows and cares little about source (manufacturer). Rather the consumer identifies the trademark with the features of the commodity."[117] Likewise, the *Siegel* court proclaimed "a new rationale for trade-marks" in which trademarks, rather than representing the producer, instead are "representations of product quality."[118] Thus, "source" now equates not to who makes it or where it comes from, but to the attributes of the product, such as quality. While consumers might associate a producer with certain attributes, the law has as its target something much more amorphous by shifting from manufacturer to product attributes.

The theory that trademarks inform consumers about quality has an important caveat, which is that the "quality" need not be high quality, only

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113. For example, Levi's has not manufactured its own products since 2003. *Levi Strauss Closes Last Two U.S. Plants*, NBC NEWS (Jan. 8, 2004, 1:42 PM PST), https://www.nbcnews.com/id/wbna3909407 [https://perma.cc/2HRE-K5T4]. Likewise, an article on mattress firms quoted an industry representative as saying, "None of these guys, with a few rare exceptions, make their own mattresses." Jasmine Wu, *There Are Now 175 Online Mattress Companies—and You Can't Tell Them Apart*, CNBC (Aug. 19, 2019, 11:18 EDT), https://www.cnbc.com/2019/08/18/there-are-now-175-online-mattress-companiesand-you-cant-tell-them-apart.html [https://perma.cc/9YF5-XCA8].

114. 448 F.2d 43 (9th Cir. 1971).

115. *Id.* at 48.

116. *Dastar*, 539 U.S. at 31–32 (emphasis added). The Court, however, did put some limit on how far the concept of origin can be removed from the production of the goods:

> the phrase 'origin of goods' is in our view incapable of connoting the person or entity that originated the ideas or communications that 'goods' embody or contain. Such an extension would not only stretch the text, but it would be out of accord with the history and purpose of the Lanham Act and inconsistent with precedent.

Id. at 32.

117. Economides, *supra* note 42, at 527. *See generally id.* (using all caps to indicate a trademark).

118. *Siegel*, 448 F.2d at 48.

consistent quality.[119] Even this standard, however, imagines business relationships that do not equate with modern business practices. Where a trademark owner consistently contracts with the same manufacturer to produce the same product, ensuring consistent quality is feasible. Trademark owners today, however, contract with several different manufacturers. That same trademarked product may be produced by many additional manufacturers over time and even concurrently. Those manufacturers, in turn, may simultaneously produce that same product for competitor firms to be sold under their trademarks.[120] Even these manufacturers may subcontract in the manufacturing process. Although it may have initiated production and authorized the use of its trademark, the trademark owner has become so far removed from the actual production that quality control is possible only at the margins. Moreover, the source of origin of the ingredients or material in a product is increasingly difficult to ascertain in today's complex global supply chain and is more likely to be inconsistent.

Thus, in many cases, products are produced by other firms that are related to the trademark owner only by contract. Trademarks do not disclose this information to consumers. In fact, the trademark is more likely to obscure this information. Consumers may be dismayed to see the level of "control" that is hiding behind the trademark.

C. Trademarks that Misinform Consumers

Numerous realities of the marketplace have diminished the information function of trademarks. One reality that the information transmission theory ignores is the instability of the ownership of trademarks due to the volume of mergers and acquisitions (M&As), which has dramatically increased since the information transmission function was put forward.[121] In some cases, the change in ownership can dramatically alter the connection with the trademarked product, such as where the owner is a

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119. 3 MCCARTHY, *supra* note 22, § 18:55 ("It is important to keep in mind that 'quality control' does not necessarily mean that the licensed goods or services must be of 'high' quality, but merely of equal quality, whether that quality is high, low or middle.").

120. The mattress industry is illustrative. As one industry expert explained, "[mattress firms are] literally calling around to producers saying, 'we need a finished product and here's what we think it should look like.' Sometimes, they don't even know what they want it to look like." Wu, *supra* note 113.

121. *See, e.g.*, Charles R. McManis, *Intellectual Property and International Mergers and Acquisitions*, 66 U. CIN. L. REV. 1283, 1283 (1998) ("[A] new wave of mergers is recasting the face of business in the United States."); MICHAEL E.S. FRANKEL & LARRY H. FORMAN, MERGERS AND ACQUISITIONS BASICS: THE KEY STEPS OF ACQUISITIONS, DIVESTITURES, AND INVESTMENTS 2 (2d ed. 2017) ("There is a long-term upward trend in both the volume and average deal size of acquisitions in the United States.").

huge conglomerate without a specific reputation for the trademarked product or where a firm engaged in unrelated business activities or has a wholly different reputation in that market.[122] These M&As further attenuate the informational value of the trademark for the consumer.

The widespread assignment and licensing of trademarks also interferes with the transmission of useful information to consumers.[123] Trademark licensing was prohibited under common law and the Trademark Act of 1905 precisely because it caused the trademark to fail to accurately indicate the origin of the products.[124] The Lanham Act permits trademark licensing, but requires that trademarks be used by "related companies."[125] Today, however, the trademark owner and the manufacturer are typically "related" only by the licensing agreement.

For trademarks to serve as an information source that improves market efficiency, they must enable consumers to overcome the asymmetry of information about the quality and characteristics of the product. Economides explains:

> In many markets, sellers have much better information as to the unobservable features of a commodity for sale than the buyers. . . . Unobservable features, valued by the consumer, may be crucial determinants of the total value of the good. . . . The economic role of the trademark is to help the consumer identify the unobservable features of the trademarked product. This information is not provided to the consumer in an analytic form, such as an indication of size or a listing of ingredients, but rather

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122. Some examples of this disconnection are Unilever's purchase of BEN & JERRY's, Clorox's purchase of BURT'S BEES, and Colgate-Palmolive's purchase of TOM'S OF MAINE. Kim Bhasin & Patricia Laya, *13 Small Eco Brands that Are Actually Owned by Giant Corporations*, BUS. INSIDER (Oct. 1, 2011, 12:34 PM PDT), https://www.businessinsider.com/13-ethical-mom-and-pop-brands-that-are-actually-owned-by-giant-corporations-2011-10 [https://perma.cc/8D2R-YY8S]. Arguably, if the product remains the same, the trademark continues to serve its function, although who stands behind it has changed. While consumers can stop buying products that change in quality as a result of the new owners, the theory that the market will correct itself rests on a different conception of the consumer as hyper vigilant and introduces inefficiency.

123. *See* 2 JEROME GILSON, TRADEMARK PROTECTION AND PRACTICE § 6.01(2) (1998); Irene Calboli, *The Sunset of "Quality Control" in Modern Trademark Licensing*, 57 AM. U. L. REV. 341 (2007) (arguing that in today's economy, quality control by trademark owners is increasing unsustainable).

124. *See* 3 MCCARTHY, *supra* note 22, § 18:39 ("In the early development of trademark law, trademarks were thought to identify only the physical source of the product or service in connection with which the mark was used."); Dawn Donut Co. v. Hart's Food Stores, Inc., 267 F.2d 358, 366 (2d Cir. 1959) ("Prior to the passage of the Lanham Act many courts took the position that the licensing of a trademark separately from the business in connection with which it had been used worked an abandonment.").

125. 15 U.S.C. § 1055 ("Where a registered mark or a mark sought to be registered is or may be used legitimately by related companies, such use shall inure to the benefit of the registrant or applicant for registration, and such use shall not affect the validity of such mark or of its registration . . . .").

> in summary form, through a symbol which the consumer identifies with a specific combination of features.[126]

Thus, the economic theory of trademarks is contingent on the fact of consistency in the manufacture of products, and also an argument that the legal protection of trademarks will ensure such consistency. The fact that today a trademark is affixed to several and varied products produced by multiple third parties is a repudiation of this theory.

The advent of wide brand extensions has produced increased trademark licensing. Brand extensions involve exploiting valuable brands to sell an increasingly unrelated array of products. According to the influential trademark treatise author J. Thomas McCarthy, the quality theory of source was directly responsible for these brand extension practices.[127] For example, Harley Davidson attaches its famous motorcycle brand to products as disparate as clothes, cake decorations, and toilet paper.[128] The manufacturers of these products likely designed these products and may even have initiated the licensing deal. Who then is the more accurate source of the products?

Retailers' private labels tell consumers that the retail chain is the source of origin of the products. At Trader Joe's almost every product is branded with the private label even though they come from various and fluctuating sources. Trader Joe's takes efforts to conceal this source information from the public.[129] Whether it is Kirkland or Amazon Basics, the products sold under these brands are simply renamed, pre-existing products. The private label therefore obscures source information.

The mattress industry provides an illustrative example.[130] Here, although there are many companies offering competitive products, and

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126. Economides, *supra* note 42, at 526–27.

127. *See* 3 MCCARTHY, *supra* note 22, § 18:40 ("The quality theory led to the modern phenomenon of a trademark owner in market A licensing its mark to sometimes far-flung markets X, Y and Z.").

128. Victoria Slind-Flor, *Money and Mayhem*, INTELL. ASSET MGMT. 15, 15 (2007) (mentioning Harley Davidson's brand extensions to clothing, beer, perfume, condoms, cribbage boards, furniture for children, coffee, beef jerky, bedding, Barbie dolls, wedding-cake toppers, and cake-decorating kits).

129. Vince Dixon, *What Brands Are Actually Behind Trader Joe's Snacks?*, EATER (Aug. 9, 2017, 1:16 PM EDT), https://www.eater.com/2017/8/9/16099028/trader-joes-products [https://perma.cc/E5NT-WP3Y] ("Trader Joe's and its suppliers all but swear to keep the agreement secret.").

130. The eyewear industry is another example. One company, Luxottica, produces eighty percent of all branded eyeglasses and sunglasses. NAWAR AL-SAADI, TO UNDERSTAND THE WORLD UNDERSTAND ECONOMICS 60 (2022) ("[Luxottica] has bought almost all the major eyewear brands. However, they are still named differently. It creates an illusion in the consumer's mind that they have a variety of sunglasses to choose from, although they are all manufactured by one Company."). Luxottica owns or licenses to Oakley, Ray-Ban, and Versace, to name a few; it also runs LensCrafters, Pearle Vision, Sears Optical, Sunglass Hut, Target Optical, and EyeMed Vision Care. David Lazarus,

each firm itself offers numerous trademarked models for consumers to choose from, the trademarks on mattresses offer consumers little useful information and are often a barrier to accessing pertinent information. Although the profusion of trademarks insinuates a broad choice of producers, forty percent of all mattresses are produced by just one manufacturer.[131] These manufactures supply the identical mattress to multiple retailers under different brand names exclusive to each retailer.[132] Under this practice, Sealy Posturepedic Reyna Ridge mattresses may only be purchased at Macy's, while Bloomingdales and other retailers may sell identical mattresses, but under different trademarks. The deliberate consequence of this business practice is to prevent the consumer from comparison-shopping.[133] In this industry, trademarks perform the most minimal function of distinguishing one mattress from another within one retail outlet (although not between different retailers), but they fail to convey any information to consumers about the source of origin or characteristics of the products.

Consumers want to know about the firms with which they do business.[134] Today, consumers have expressed intense interest in knowing the level of social responsibility of the firms that offer them products. Evaluation of a firm's environmental, social, and corporate governance (ESG) has emerged as a means of expressing the public's concern over the general lack of transparency and accountability in today's corporations.[135] While trademarks could theoretically play an effective

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How Badly Are We Being Ripped Off on Eyewear? Former Industry Execs Tell All, L.A. TIMES (Mar. 5, 2019, 5:00 AM PT), https://www.latimes.com/business/lazarus/la-fi-lazarus-glasses-lenscrafters-luxottica-monopoly-20190305-story.html [https://perma.cc/3SUG-29FW].

131. Wu, *supra* note 113.

132. *See* Steven Kurutz, *An Easy Choice? Dream On*, N.Y. TIMES (Oct. 8, 2014), https://www.nytimes.com/2014/10/09/garden/how-to-find-the-best-mattress-in-the-maze-of-choices.html (last visited Oct. 16, 2023) ("I'd go into store B and say, 'Do you have the Serta blah, blah, blah?' And the salesperson would say: 'I don't know. We may. But ours have different names.'" (quoting a consumer)); Timothy B. Lee, *Mattress Stores Want to Rip You Off. Here's How to Fight Back*, VOX (Aug. 10, 2015, 3:00 PM EDT), https://www.vox.com/2015/3/5/8151607/mattress-buying-tips-savings [https://perma.cc/FQA9-5QEU] ("[S]ome mattress manufacturers will give the same mattress different names in different stores.").

133. *See* Lee, *supra* note 132.

134. *Cf.* Laura R. Bradford, *Trademark Law and Agency Costs*, 55 INTELL. PROP. L. REV. 193, 203 (2015) (noting the "undersupply of clear information about sponsorship and affiliation" in the consumer market).

135. For instance, New York first introduced proposed legislation in 2021, later reintroduced in 2023, that would create environmental and social governance reporting requirements for multinational fashion retail sellers and manufacturers. *See* Fashion Sustainability and Social Accountability Act, A. 8352, 2021–2022 Assemb. (N.Y. 2021); Fashion Sustainability and Social Accountability Act, A. 4333, 2023–2024 Assemb. (N.Y. 2023). Among other disclosures, firms would be required to

role here, such as alerting consumers to stay away from certain branded products based on low ESG scores, it is instructive to consider how trademarks may have contributed to the lack of transparency in the first place. Today, many trademark owners have relinquished, at least to some extent, their capacity to control quality, which they had when they manufactured and sourced the raw materials themselves.

Not only do many trademark owners typically have no production capacity, but they also may not even employ designers or inventors. Some trademark owners are holding companies. When trademark owners neither produce, design, nor even commission the products sold under that trademark, it is difficult to determine what useful information the trademark is conveying to consumers. For example, a consumer might believe that the menswear company Robert Graham was the firm of a designer named Robert Graham. Instead, Robert Graham products are designed by unrelated firms that approach the company to suggest certain products.[136] If agreed to, those firms then source the product from a manufacturer, who will in turn source the materials from other manufacturers.[137] Robert Graham will sign several such contracts with various third parties.[138] Recalling the *Wizard of Oz*, trademarks can function like a curtain that shrouds a lone contract attorney.

There are numerous examples of trademarks that unsurprisingly, perhaps deliberately, lead consumers astray. For example, a consumer who cares about the environment and consuming healthy food may be attracted to Boca Burgers veggie burgers, imagining that the firm that stands behind that trademark is guided by those concerns. It is not. Boca Burgers is owned by the large tobacco firm Philip Morris.[139] Fashion

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disclose supply chain mapping and social and environmental sustainability reports for "a minimum of" fifty percent of suppliers by volume. *Id.* These firms need a law to force them to learn just fifty percent of the supply chain for the goods that they affix with their trademark!

136. This business model was described to the author by the Robert Graham employee—who is not a lawyer—in charge of these decisions and contracts. Interview with Unnamed Robert Graham Employee, Robert Graham, in Washington, D.C. (June 11, 2014) (on file with author).

137. *Id.*

138. *Id.*

139. Dow Jones, *Kraft to Buy Boca Burger*, N.Y. TIMES, Jan. 19, 2000, at C13. Kraft Foods is a unit of Philip Morris. *Id.* Similarly, if a consumer has a bad rental car experience with National and therefore chooses Alamo the next time they rent a car, they may be disappointed to know that both brands are owned by Enterprise. *See* Andrew C. Taylor, *Enterprise's Leader on How Integrating an Acquisition Transformed His Business*, HARV. BUS. REV. (Sept. 2013), https://hbr.org/2013/09/enterprises-leader-on-how-integrating-an-acquisition-transformed-his-business [https://perma.cc/6TFR-FAL6]. Another example of trademark misinformation was the news reports of people around the world expressively pouring out STOLICHNAYA vodka to protest Russia's invasion of Ukraine. Claire Thornton, *Ditching Vodka to Protest Russia? You Might Be Surprised Where That Bottle Is Actually from*, USA TODAY (Mar. 4, 2022, 12:57 PM ET),

brands such as Christian Lacroix and Kate Spade likely indicate to consumers that the garments that carry the designer's names have been designed by or at least were designed under the authorization of the eponymous designer. In fact, in these cases and many others, the designer whose name the trademark bears is legally separate from the company.[140] Or consider the many examples of faux foreign trademarks like Ginsu knives (from Ohio, not Japan)[141] or Häagen-Dazs, whose original ice cream cartons depicted a map of Denmark, when in fact the ice cream brand was founded in the Bronx as a made-up, European-sounding name.[142] There is good reason to think that the misinformation trademarks convey is material. When consumers learned that Häagen-Dazs was not Danish, but came from the Bronx, sixty-eight percent decided not to buy it.[143] Even if we include the transmission of product characteristics under an information transmission theory approach, this function also does not work because consumers think they are getting product characteristics that they are not. In these scenarios, trademarks convey fraudulent assurance of product quality.

Even though the Supreme Court recently stated that "[t]he Lanham Act makes th[e] fact [of whether a mark's use is serving a source-designation function] crucial[] in its effort to ensure that consumers can tell where

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https://www.usatoday.com/story/money/2022/02/26/vodka-russia-most-vodka-brands-u-s-arent-russian/6952976001/ [https://perma.cc/FKJ5-YD6R]. STOLICHNAYA, however, is made in Latvia—a NATO member country—and is owned by a firm in Luxembourg. *Id.* Ownership of the STOLICHNAYA trademark is the subject of a decades-long legal dispute. Macpherson Kelley, *Long-Running Dispute over Stolichnaya and Moskovskaya Vodka Marks Reignited*, LEXOLOGY (July 21, 2021), https://www.lexology.com/library/detail.aspx?g=20e326cb-0da6-424b-bb0d-88fb09738931 [https://perma.cc/SGR3-SP3E]. As a result, the "origin" of STOLICHNAYA depends on the bottle.

140. *See* George C. Sciarrino & Matthew D. Asbell, *The Designer Formerly Known as . . .: Intellectual Property Issues Arising from Personal Names as Fashion Brands*, 107 TRADEMARK REP. 1150 (2017) (citing the examples of designer labels KATE SPADE, CHRISTIAN LACROIX, DAVID J. PLINER, PAUL FRANK, JOSEPH ABBOUD, CATHERINE MALANDRINO, and KAREN MILLEN); Yvette Joy Liebesman, *When Selling Your Personal Name Mark Extends to Selling Your Soul*, 83 TEMP. L. REV. 1, 27–31 (2010) (citing the examples of JOSEPH ABBOUD and SIGRID OLSEN); Allison B. Pitzer, Comment, *Unfashionably Late: Protecting a Designer's Identity After a Personal Name Becomes a Valuable Trademark*, 35 S. ILL. U. L.J. 309, 309–10, 318–24, 331–32 (2011) (citing examples of HERVE LEGER, Paolo Gucci of GUCCI, and JOSEPH ABBOUD).

141. Andrew Guy Jr., *The Ginsu Guys Carved a Very Profitable Niche*, CHRON. (Mar. 13, 2005), https://www.chron.com/life/article/The-Ginsu-guys-carved-a-very-profitable-niche-1934720.php [https://perma.cc/3R98-UXD8]; *see also id.* ("'Who would buy a set of knives made in Ohio? . . . We had to add some mystery.'" (quoting Barry Becher, co-founder of Ginsu)).

142. *See* Alison Spiegel, *Häagen-Dazs Doesn't Come from Where You Think It Comes from*, HUFFPOST (Feb. 11, 2021), https://www.huffpost.com/entry/haagen-dazs-comes-from_n_7266208 [https://perma.cc/FV9R-25MW]. General Mills now owns Häagen-Dazs. *Id.*

143. Dan Nosowitz, *Häagen-Dazs Ice Cream Is from the Bronx—so What's with the Name?*, ATLAS OBSCURA (Sept. 5, 2017), https://www.atlasobscura.com/articles/haagen-dazs-fake-foreign-branding [https://perma.cc/6MH2-ACH2].

goods come from,"[144] in so many cases, trademarks fail to inform consumers of the true provenance of the products they adorn. In fact, trademarks may serve to mask just how attenuated the origin of the product is from the trademark owner. In these instances, trademarks function less as information packets[145] than they do misinformation packets.

Economides, one of the economists that articulated the search cost theory to an enthusiastic trademark bar,[146] explained the benefit of trademarks from a consumer perspective. In Economides' view, trademarks aid the consumer in a situation of information asymmetry.[147] The consumer can only see competitive products that appear similar; they have no way of ascertaining the products' unobservable differences, which only the producers know.[148] By communicating these unobservable differences to consumers, trademarks, according to Economides, alleviate the information asymmetry.[149] However, the preceding examples demonstrate that information asymmetry still exists and has even been increased by the expansion of trademark protection. Search costs theory proponents, like Economides, fail to account for the information asymmetry that trademarks can engender. Unobservable differences between products also can be misrepresented to the consumer by means of the trademark.

III. TRADEMARKS IN THE AGE OF ALGORITHMS

A. The Tech Challenge to Trademark Theory

Thus far, neither scholarly critique nor the numerous inconsistent realities of the marketplace have been able to topple the ascendency of search costs theory. However, with the AI-mediated marketplace, search costs theory has finally met its justifying limit. This paradigm shift in shopping fundamentally undercuts the rationale for trademarks.

If we protect trademarks because they are efficient at conveying accurate information, it means that the cost of protection outweighs the

144. Jack Daniel's Props., Inc. v. VIP Prods. LLC, 599 U.S. __, 143 S. Ct. 1578, 1593 (2023).

145. *See* Carter, *supra* note 29, at 759.

146. *See* Swann, *supra* note 60, at 1132 n.3 (indicating that the Economides article was funded by a grant the from the United States Trademark Association (USTA), the precursor to INTA; that Landes and Posner's article was derived from a lecture by Judge Posner at a USTA funded event; and that Economides, along with Landes and Posner, published articles in *The Trademark Reporter* in 1988).

147. *See* Economides, *supra* note 42, at 526.

148. *See id.*

149. *See id.*

alternative, which would be less efficient or less accurate. Grounded in the archetype of a consumer overwhelmed by a store shelf full of choices, such a tradeoff seems necessary. However, consumers today possess alternative means to efficiently research which product choice is optimal. They are no longer forced to rely solely on the informational shortcut provided by trademarks. For example, origin information can be far more accurately and efficiently disseminated through blockchain than trademarks.[150] Walmart is already using blockchain to tell consumers the provenance of its products.[151] Other technological means may be more reliable than trademarks to trace products through the supply chain.[152] An obvious one is that almost all consumers carry with them tiny computers that can access and process nearly all of the world's information in milliseconds. Landes and Posner could never have anticipated this technological advance. Consumers are now able to bring real research to bear on purchasing decisions.[153] Anything that can be known about the products we are considering travels with us on our mobile devices. Which dish soap works best on grease, is most environmentally friendly, smells best, is most economical, is made with fair labor standards, is made in America, etc.? A few clicks will provide all the answers.

The consumer search costs theory of trademarks is premised on consumers mainly relying on their personal experience with products—good and bad—as the primary source of information that drives future purchasing choices, with second-hand information and advertising pitches supplementing that first-hand experience.[154] Search costs theory is premised on the consumer approaching the store shelf with their choice already made and efficiently eyeing the trademark that corresponds to that choice. This strategy is efficient—so long as you can remember which soap your friend mentioned—but may not yield the optimal choice because of the paucity of inputs. Relying on such limited input, however, is now wholly obsolete. Today, massive amounts of customer reviews are

150. *See, e.g.*, Ron Miller, *Walmart Is Betting on the Blockchain to Improve Food Safety*, TECHCRUNCH (Sept. 24, 2018, 12:00 PM PDT) https://techcrunch.com/2018/09/24/walmart-is-betting-on-the-blockchain-to-improve-food-safety/ [https://perma.cc/V9QN-ZL5H] ("By placing a supply chain on the blockchain, it makes the process more traceable, transparent and fully digital.").

151. *See id.*

152. *See* Margaret Chon, *Tracermarks: A Proposed Information Intervention*, 53 HOUS. L. REV. 421 (2015) (explaining how technology can provide traceable and verifiable source information to consumers).

153. Fifty-three percent of respondents answered the question, "How do you search for specific information on a product that you want to buy?," with "Search engines (e.g., Google)." *Sources of Information About Products in the U.S. as of June 2023*, STATISTA (Aug. 25, 2023), https://www.statista.com/forecasts/997051/sources-of-information-about-products-in-the-us#statisticContainer (last visited Sept. 23, 2023).

154. Economides, *supra* note 42, at 532–33.

ubiquitous in the online environment. Why rely on the producer's recommendation or your own limited experience when there is easy access to thousands of customer reviews, third party ratings, and knowledgeable descriptions of attributes? Economist George Stigler, who is credited with advancing the concept of consumer search costs in economics, argued in 1961 that search costs are reduced when consumers pool information.[155] Stigler could not have foreseen how large that pool of information would become.

Now, the consumer who stands before a shelf of product choices may be armed with more relevant and accurate information to make that choice. In those moments, however, consumers will still need to rely on trademarks as the devices that enable them to match products with their researched selections. That is, for the internet-informed consumer, the trademark still serves as a distinguishing device. The information function of trademarks, however, is dramatically scaled back. The trademark merely identifies itself. If internet research had persuaded the consumer to buy the cheapest or most expensive choice, the price tag would have functioned in exactly the same way.

B. The Disappearance of Trademarks from Search

The marketplace has dramatically changed since the 1980s when the search costs theory was articulated.[156] The consumer experience is radically changing, with the pandemic accelerating these changes.[157] The change in where and how consumers shop[158] significantly bears on the function of trademarks in search. Consumers are shopping in the physical world at declining rates.[159] More consumers are doing more shopping

155. *Cf.* Stigler, *supra* note 60, at 216.

156. *See, e.g.*, GILSON LALONDE, *supra* note 30, § 1.03(12) (illustrating the function of trademarks by describing a consumer selecting a product from a store shelf). How trademarks are advertised and function in the marketplace continues to be anachronistically described in trademark law even today. *Id.*

157. *See* Rae Yule Kim, *The Impact of COVID-19 on Consumers: Preparing for Digital Sales*, 48 IEEE ENG'G MGMT. REV. 212, 214 (2020).

158. *See* James Yang, *NPR/Marist Poll: Amazon Is a Colossus in a Nation of Shoppers*, NPR, http://www.npr.org/about-npr/617470695/npr-marist-poll-amazon-is-a-colossus-in-a-nation-of-shoppers [https://perma.cc/V8P8-JLC9] ("The habits of American shoppers are changing profoundly as more of them log on to buy things online. With one click or a voice command, things arrive magically at their doorsteps.").

159. *See* Simon Torkington, *The Pandemic Has Changed Consumer Behaviour Forever - and Online Shopping Looks Set to Stay*, WORLD ECON. F. (July 7, 2021), http://www.weforum.org/agenda/2021/07/global-consumer-behaviour-trends-online-shopping/ [https://perma.cc/XN3T-UHRA]; Tamara Charm, Becca Coggins, Kelsey Robinson & Jamie Wilkie, *The Great Consumer Shift: Ten Charts That Show How US Shopping Behavior Is Changing*,

online[160] and this trend is predicted to continue.[161] Millennials, who were projected to comprise one-third of total retail spending in 2021,[162] and will eventually "have a greater impact on the economy than the Baby Boomer[s],"[163] are comfortable doing all of their shopping online. Likewise, Gen Zers are digital natives never having known a world of commerce that did not include the internet, social media, and mobile.[164]

In the digital environment, making the optimal product choice is no longer an exercise in hunting for trademarks. According to the search costs model, consumers scan store shelves hunting for the package marked Crest. When shopping online, the consumer does not have to see Crest, or even remember Crest, but can follow clicks within their research to purchase the optimal toothpaste.

In the digital marketplace, trademarks are vanishing from search. In virtual retail, consumers cannot physically examine the product or its trademark and packaging. They see the physical product for the first time only after it has been purchased and delivered. Consequently, they may

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MCKINSEY & CO (Aug. 4, 2020), http://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-great-consumer-shift-ten-charts-that-show-how-us-shopping-behavior-is-changing [https://perma.cc/4L3G-YCR4]. In 2021, 78.5 percent of the U.S. population shopped online. *Penetration Rate of E-Commerce in the U.S. 2018–2028*, STATISTA, http://www.statista.com/statistics/273958/digital-buyer-penetration-in-the-united-states/ (last visited Oct. 31, 2023).

160. E-commerce has been continuously increasing each year. *See* Seray Keskin, *19 New Ecommerce Statistics You Need to Know in 2023*, DRIP (May 24, 2022), http://sleeknote.com/blog/e-commerce-statistics [https://perma.cc/L44L-VSH2]; Alicia Phaneuf, *Ecommerce Statistics: Industry Benchmarks & Growth*, INSIDER INTEL. (Jan. 8, 2022), http://www.insiderintelligence.com/insights/ecommerce-industry-statistics/ [https://perma.cc/MY8H-TCZT] ("We expect US ecommerce sales will cross $1 trillion for the first time in 2022."). According to a Pew Research study in 2016, seventy-nine percent of U.S. consumers shop online. Aaron Smith & Monica Anderson, *Online Shopping and E-Commerce*, PEW RSCH. CTR. (Dec. 19, 2016), http://www.pewresearch.org/internet/2016/12/19/online-shopping-and-e-commerce/ [https://perma.cc/4KLF-C4ZQ]. Over half shopped from their mobile phone, and fifteen percent purchased after clicking through on a link shared on social media. *Id.*

161. Recently, sales in e-commerce have increased five times faster compared to in-store retail. Kim, *supra* note 157, at 215. There is no indication that e-commerce is going to stop growing. *See* Kai Stübane, *Online Shopping Trends 2022: Pandemic-Era Habits Settle In*, THE FUTURE OF COM. (2022), http://www.the-future-of-commerce.com/2022/02/04/online-shopping-trends-2022-pandemic-era-habits-settle-in/ [https://perma.cc/NU8X-AQ4B] ("Researchers at Statista estimate global e-commerce sales will top $7 trillion dollars by 2025.").

162. Iva Marinova, *18 Amazing Online Shopping Statistics 2023*, REV. 42, https://review42.com/resources/online-shopping-statistics/ [https://perma.cc/6E6F-NXUP] (last updated May 20, 2023).

163. Susan M. Puwalski, Millennials and E-Commerce: The Online Shopping and Purchasing Behavior of Millennials Attending College (2011) (Ph.D. dissertation, Capella University) (ProQuest). Millennials are one-third larger than the Baby Boom generation. *Id.*

164. *See* Andris A. Zoltners, Sally E. Lorimer & Prabhakant Sinha, *How Sales Teams Can Thrive in a Digital World*, HARV. BUS. REV. (Feb. 18, 2020), http://hbr.org/2020/02/how-sales-teams-can-thrive-in-a-digital-world [https://perma.cc/3E3M-LQN9].

not have noticed how a trademark is displayed on the product or packaging when making the purchasing decision. Nontraditional trademarks such as smell, sound, taste, and tactile marks will therefore be of no assistance to consumers in making a purchase decision online. The trademark may be displayed virtually, but it will likely have a diminished impact. It may not be seen "affixed" to the product,[165] and the trademark may be displayed only in plain typeface, in black, and in small font, as is other information such as price.

More significantly, trademarks may not even appear in search. Source information may instead be contained in source code, invisible to consumers. When consumers find products on their phones and on social media, they rely on this digital information.[166] Before, trademarks were a stand-in for product research. Now, purchases actually result from research. A consumer may arrive at a trademarked product, but the path to that product was not through the assistance of the trademark. According to the search costs theory, trademarks "promote and secure business reputation and goodwill by securing a mnemonic device between products and source."[167] Numerous technologies, however, relieve consumers of the need of mnemonics to make or repeat a satisfactory purchase. A simple one is the "order it again" feature that many e-retailers offer. In such cases, consumers may not even notice what brand of candles or charging cables they have been buying.

In the digital marketplace, many of today's sellers have already recognized the irrelevance of trademarks. Online shopping practices reveal that in many instances brand matters less than other factors and may not even matter at all. Delivery charges and delivery dates have become a major factor in purchasing decisions.[168] For instance, for

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165. Affixing the trademark to the good is required for trademark protection. 15 U.S.C. § 1127(1)(A) ("For purposes of this chapter, a mark shall be deemed to be in use in commerce . . . on goods when . . . it is placed in any manner on the goods or their containers or the displays associated therewith or on the tags or labels affixed thereto, or if the nature of the goods makes such placement impracticable, then on documents associated with the goods or their sale . . . ."). Use in commerce is required for trademark protection. *See id.*

166. Sixty-one percent of retail traffic comes from mobile devices. Keskin, *supra* note 160.

167. Dan L. Burk & Brett H. McDonnell, *Trademarks and the Boundaries of the Firm*, 51 WM. & MARY L. REV. 345, 351 (2009).

168. Lauren Freedman *The Shopper Speaks: Shipping and Delivery Satisfaction Numbers Stand Strong*, DIGIT. COM. 360 (Aug. 30, 2023). https://www.digitalcommerce360.com/2023/08/30/shipping-delivery-satisfaction [https://perma.cc/5JPZ-BL7K]; *see* Martin Joerss, Florian Neuhaus & Jürgen Schröder, *How Customer Demands Are Reshaping Last-Mile Delivery*, MCKINSEY & CO. (Oct. 19, 2016) https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/how-customer-demands-are-reshaping-last-mile-delivery [https://perma.cc/5VRZ-NHGM] (indicating that delivery options, speed, and perceived quality are key differentiators amongst large e-commerce

consumers shopping on Amazon, searchable product characteristics and verified customer satisfaction may drive their search.[169] Placement in search results, however, may be more important than any other factor.[170]

Consumers on Amazon may find in their top search results products sold under unrecognizable marks like BSTOEM and ZGGCD.[171] Such seemingly random strings of letters are an increasing presence on Amazon.[172] These "pseudo-brands" are neither selected nor deployed to function as trademarks in the traditional sense. Instead, they are adopted solely to optimize placement in search results.[173] For example, the FRETREE trademark appears in the listings of a large range of unrelated products such as "'ice cream scoops,' 'animal-activated pet feeders' and 'camping grills.'"[174] The trademark owner also owns the registered trademarks DRALEGEND and CORLITEC, which appear in random product listings including "alarm clocks, flashlights, blowtorches and yoga mats."[175]

Unpronounceable and meaningless in every language, these marks have been acquired only to respond to the idiosyncrasies of the Amazon platform. They are not used in marketing and usually do not even appear on the products. They are a creature of Amazon policies and algorithms.[176]

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players); *see also* Laura Lane, *The Future of Social Commerce and Marketplaces: eConsultancy Report*, CHANNELADVISOR (Sept. 21, 2020), http://www.channeladvisor.com/uk/blog/marketplaces/the-future-of-social-commerce-and-marketplaces-econsultancy-report/ [https://perma.cc/SWM7-3TDB] ("Eighty-three percent of consumers claim convenience is more important than it was five years ago.").

169. *See, e.g.*, Jie Yang, Rongting Zhang & Vanessa Murdock, *Exploring the Reasons Behind Customer Purchase Decisions*, AMAZON SCI. (Mar. 10, 2020), http://www.amazon.science/blog/exploring-the-reasons-behind-customer-purchase-decisions [https://perma.cc/4YAA-Z6R6] (reporting on a study finding that "perceived quality is highly correlated with price"); Rosie Murphy, *Local Consumer Review Survey 2020*, BRIGHTLOCAL (Dec. 9, 2020), http://www.brightlocal.com/research/local-consumer-review-survey-2020/ [https://perma.cc/MN2Y-M52Y] (finding that seventy-nine percent of respondents said they trusted online reviews as much as the recommendations of family and friends).

170. A whopping "49% of shoppers aged 27-40 say they always or frequently/often buy the first product listed on an Amazon" search engine results page. FEEDVISOR, THE 2021 AMAZON CONSUMER BEHAVIOR REPORT 4, http://s3.amazonaws.com/media.mediapost.com/uploads/2021_Consumer_Behavior_Report.pdf [https://perma.cc/WE8E-NT7R].

171. John Herrman, *All Your Favorite Brands, from BSTOEM to ZGGCD*, N.Y. TIMES (Feb. 11, 2020), http://nyti.ms/38uhKvi (last visited Nov. 3, 2023).

172. *Id.*

173. *See id.*

174. *Id.*

175. *Id.*

176. Note, *Fanciful Failures: Keeping Nonsense Marks off the Trademark Register*, 134 HARV. L. REV. 1804, 1805 (2021). Amazon's policies have caused a surge in Chinese trademark filings in the

In an effort to be responsive to brand owners' concerns over counterfeit goods on the platform, Amazon developed the "Brand Registry" program, which requires a U.S. trademark registration.[177] Participants in the program receive the benefit of appearing higher up in search results and earlier access to consumer reviews, both of which significantly impact sales.[178] The fastest and cheapest way to acquire a trademark registration is to apply for a made-up word that has never been used by anyone before and has no meaning that may create an obstacle to registration.[179] A trademark is only a ticket to entry into the Amazon marketplace; it has no other value to these sellers or to consumers.

The fact that products sold under marks like ZGGCD can be "Best Sellers" on Amazon demonstrates the comparatively low value of brand to other criteria such as search result, price, shipping, and product reviews.[180] According to Professors Barton Beebe and Jeanne Fromer's study of a random sample of applications for marks for apparel filed at the United States Patent and Trademark Office (USPTO) in 2017, 44.4% (162 of 365) applications from China—which account for about a third of all applications—involved a "nonsense word that is unpronounceable in English and that the applicant indicated has no meaning in any other language."[181]

The rationale for trademarks is undermined by the marked change in the way consumers now make purchasing decisions. Internet research capabilities, of course, are just one small step away from the consumer purchasing decision of a bygone era. Other developments, however, expose the consumer search costs model as simply inapt and anachronistic. Rather than a range of choices presented to a consumer who

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United States Patent and Trademark Office. *See id.* at 1804. Consequently and perversely, U.S. public servants spend inordinate time assisting foreign sellers and Amazon in reaching financial success. *Id.* at 1814.

177. Herrman, *supra* note 171.

178. *Id.*

179. *Id.* Amazon also offers its "IP Accelerator Program, through which sellers can join Amazon's Brand Registry [even] before obtaining a trademark" by applying for trademark registration with the help of an approved law firm. *Id.*

180. *See, e.g.*, Cleo Levin, *Made-for-Amazon Brand Names Are Getting Ridiculously Surreal*, SLATE (Oct. 14, 2020, 10:20 AM), http://slate.com/technology/2020/10/amazon-brand-names-pukemark-demonlick-china.html [https://perma.cc/5LXP-HU4L] ("There is also a startling amount of competition among inexpensive, third-party clothing brands. If you search 'women's long sleeve shirts' on Amazon, you get more than 80,000 results, the overwhelming majority of which do not come from recognizable brands. Even if Pukemark does not have its own website, or even a dedicated landing page on Amazon, the name can still function as something to catch people's attention long enough to get them to click through and buy an $8 shirt.").

181. Barton Beebe & Jeanne C. Fromer, *Fake Trademark Specimens: An Empirical Analysis*, 120 COLUM. L. REV. F. 217, 232 (2020).

must then select among them, today numerous apps and services are at consumers' disposal to direct them to the product of their desires. If a consumer sees something they like the looks of, either on screen or in the wild, they can, with the aid of their phones and QR codes, barcodes, SKU numbers, model numbers, etc., discover where to purchase such a product. In such a transaction, the trademark does not play an identification role in either the search for, or the selection of, the product. Increasingly, consumers can rely on image alone to lead them to the product they want. For instance, if a consumer sees a chair they like in a photo on Pinterest, Pinterest Lens will connect them with chairs for sale that are visually similar.[182] These technologies use machine learning to provide recommendations for similar items online. In all of these searches, trademarks do not aid the consumer in finding the product, although they may help consumers choose if there are multiple accurate results.

Another technology that substitutes for trademarks in the marketplace is near-field communication (NFC). Chips in phones exchange data when they come into contact with objects with NFC tags, which can be added to almost any tangible product.[183] NFC tags embed product information

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182. *See Pinterest Lens*, PINTEREST, http://help.pinterest.com/en/article/pinterest-lens [https://perma.cc/5US4-2LM3]. For a human-built analog, try Worn on TV, which provides information about where to buy clothing and accessories that looks like what celebrities have worn. *See* WORN ON TV, http://wornontv.net/ [https://perma.cc/S8WS-GPCX]. For example, Target partners with Pinterest to use photos that customers have pinned to suggest visually similar items that it sells. Tricia McKinnon & Ben Rudolph, *20 Innovative Examples of Artificial Intelligence in Retail*, INDIGO9 DIGIT. (May 19, 2020), http://www.indigo9digital.com/blog/artificialintelligence [https://perma.cc/S6WP-LCXB]. Google Lens, Bing's Visual Search, and Amazon's StyleSnap all enable consumers to use image search to find products. *See* GOOGLE LENS, http://lens.google/ [https://perma.cc/T7J9-43NZ]; Raghav Haran, *Bing Now Lets You Search for an Object Within an Image*, SINGLE GRAIN, http://www.singlegrain.com/news/bing-now-lets-search-object-within-image/ [https://perma.cc/3FG3-3HAP]; AMAZON, http://www.amazon.com/stylesnap [https://perma.cc/VEN2-655E]. CamFind offers a similar app-based tool. *See Visual Search*, CAMFIND, http://camfindapp.com/ [https://perma.cc/YK9P-WAKR].

183. Peter Dahlström & David Edelman, *The Coming Era of 'On-Demand' Marketing*, MCKINSEY & CO. (Apr. 1, 2013), http://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-coming-era-of-on-demand-marketing [https://perma.cc/J29L-LSCY]. Google offers "window shopping," which allows users to search for products using general terms. *See Window Shopping*, CHROME WEB STORE, http://chrome.google.com/webstore/detail/window-shopping/oifaapdofedmholcgkpiplenfeiehdoh?hl=en [https://perma.cc/UNC5-FTEX]. For example, "snow boots" produces a visual feed of products that can be further filtered by prompted terms such as "women," "fur," "lace up," and "free returns." *Id.* (follow "Window Shopping" hyperlink; then download the "Window Shopping" app; then search "snow boots"). Results include customer reviews, rankings, and price. *Id.* Brands can be search terms, but a highly specific search can be accomplished without them. *Id.* Unlike shopping at an online retailer, the results are pulled from twenty-four billion product listings across the internet. Antonio G. Di Benedetto, *Google Expands Shopping Searches with Lens and In-Store Inventory Checks*, VERGE (Sept. 29, 2021, 10:30 AM PDT), https://www.theverge.com/2021/9/29/22696646/google-shopping-lens-search-inventory-check-ios-chrome [https://perma.cc/T9BY-CZB2].

in goods, enabling consumers to research a product when they encounter it in the world. Rather than conducting remote research, consumers explore products through an interactive shopping experience. For example, noticing a headset, a consumer can tap it with their phone for information.[184] The phone might then suggest taking a selfie to see what the consumer looks like wearing various colors or models of the headset. The consumer can then post these images on social media for peer feedback. The consumer may then receive a customized offer such as bundling a service with the purchase of the headset, relying on current subscription data. As the consumer wears this new headset, it may detect when the phones of those who reacted to the consumer's post are near and those individuals may then be offered a special deal. At no time in this scenario does a trademark appear in the strategic marketing or in the consumer's search. While a trademark may still serve as a referent, these are not trademark searches; these are product searches, and they are remarkably efficient.

C. The Advent of Adtech

The story in the introduction may sound futuristic and dystopian, but data collectors and advertisers are using all of those technologies now. The deployment of AI in the digital marketplace was rapidly accelerated by the pandemic as more consumers turned to online purchases.[185] Big data, AI, machine learning, and deep learning have already transformed the marketplace, and even more changes are on the way.

The advertising technology industry known as "adtech" is a vast and growing industry.[186] AI is predicted to have a $40 billion effect on marketing by 2025.[187] The fact that the internet has largely been built on an advertising-based business model has given rise to surveillance

184. Dahlström & Edelman, *supra* note 183.

185. Joe McKendrick, *AI Adoption Skyrocketed Over the Last 18 Months*, HARV. BUS. REV. (Sept. 27, 2021), https://hbr.org/2021/09/ai-adoption-skyrocketed-over-the-last-18-months [https://perma.cc/W249-NYU4]; *see also* Kim, *supra* note 157, at 213; Stübane, *supra* note 161.

186. The digital advertising market was expected to grow 30.5 percent in 2021 to revenues of $491 billion globally. Alistair Gray, *Three Tech Giants Control Half of Advertising Outside China*, FIN. TIMES (Dec. 7, 2021), http://www.ft.com/content/bcbc8674-060f-4298-aab8-91e40e00c3f2 (last visited Oct. 13, 2023). Google, Facebook, and Amazon have doubled their share of ad revenues in the past five years. *Id.* Amazon's advertising business alone generated $31 billion in revenue in 2021. Farhad Manjoo, *The Rise of Big Tech May Just Be Starting*, N.Y. TIMES (Feb. 16, 2022), http://www.nytimes.com/2022/02/16/opinion/big-tech-stock-market.html (last visited Nov. 3, 2023).

187. Vance Reavie, *Do You Know the Difference Between Data Analytics and AI Machine Learning?*, FORBES (Aug. 1, 2018, 7:00 AM EDT), http://www.forbes.com/sites/forbesagencycouncil/2018/08/01/do-you-know-the-difference-between-data-analytics-and-ai-machine-learning/#5c50edac5878 [https://perma.cc/EV88-NEKF].

capitalism, where personal data is the commodity exchanged.[188] Recent antitrust cases brought against big tech firms have revealed how online advertising is the key component.[189] For example, Alphabet, Google's parent company with a revenue of $257 billion in 2021,[190] has a market capitalization that exceeds the GDP of all but eleven countries.[191] Significantly, more than eighty percent of that revenue comes from targeted advertising. Based on their revenue models, Google and Facebook might be thought of as advertising companies.[192] When tech companies this large become advertising companies, advertising changes.

Remember the story about how Target marketed baby products to a family who did not yet know—as Target did—that their teenage daughter was pregnant?[193] That was more than ten years ago! With little notice,

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188. *See generally* SHOSHANA ZUBOFF, THE AGE OF SURVEILLANCE CAPITALISM 8–10 (2019); TIM WU, THE ATTENTION MERCHANTS: THE EPIC SCRAMBLE TO GET INSIDE OUR HEADS (2016). Ironically, in an academic paper Google founders Larry Page and Sergey Brin famously warned that "advertising funded search engines will be inherently biased towards the advertisers and away from the needs of the consumers." Sergey Brin & Lawrence Page, *Reprint of: The Anatomy of a Large-Scale Hypertextual Web Search Engine*, 56 COMPUT. NETWORKS 3825, app. A, at 3832 (2012).

189. *See* Complaint at 1, Texas v. Google LLC, No. 4:20-cv-957 (E.D. Tex. Dec. 16, 2020). Google boasts that "more daily transactions are made on [Google's] AdX than on the NYSE and the NASDAQ combined." Second Amended Complaint at 2, *In re* Google Digit. Advert. Antitrust Litig., No. 1:21-md-03010-PKC (S.D.N.Y. Oct. 22, 2021). Nearly thirty percent of Google's gross digital advertising revenue flows from its demand side platforms. Complaint at 90–91, Dep't of Just. v. Google LLC, No. 1:23-cv-00108 (E.D. Va. Jan. 24, 2023).

190. Press Release, Alphabet Inc., Alphabet Announces Fourth Quarter and Fiscal Year 2021 Results (Feb. 1, 2022), http://abc.xyz/investor/static/pdf/2021Q4_alphabet_earnings_release.pdf [https://perma.cc/58FR-MGZE].

191. To illustrate, the market valuation of Alphabet Inc. is $1.97 trillion. Akash Sriram & Subrat Patnaik, *Alphabet Eyes $2 Trillion Value After Blowout Results*, REUTERS (Feb. 3, 2022, 5:47 AM PST), http://www.reuters.com/business/alphabet-inches-closer-2-trln-market-value-after-blowout-results-2022-02-02/ [https://perma.cc/PUB5-RGQ9]. If it were a country, it would be the twelfth richest country, just below Brazil and Canada. *See* Omri Wallach, *The World's Tech Giants, Compared to the Size of Economies*, VISUAL CAPITALIST (July 7, 2021), https://www.visualcapitalist.com/the-tech-giants-worth-compared-economies-countries/ [https://perma.cc/6KA9-85V8].

192. *See* Complaint at 2–3, Texas v. Google LLC, No. 4:20-cv-957 (E.D. Tex. Dec. 16, 2020) ("[Google's] *entire* business model is targeted advertising . . . ." (emphasis in original)); Hannah Murphy, *Facebook Patents Reveal How It Intends to Cash In on Metaverse*, FIN. TIMES (Jan. 18, 2022), http://www.ft.com/content/76d40aac-034e-4e0b-95eb-c5d34146f647 (referencing Meta's "existing $85bn-a-year ad-based business model") (last visited Nov. 7, 2023). The recent dispute between Apple and Facebook over Apple's new privacy settings, which disrupts Facebook's data-harvesting ad services, demonstrates how dependent these firms have become on their ad revenue models. *See* Patience Haggin, Keach Hagey & Sam Schechner, *Apple's Privacy Change Will Hit Facebook's Core Ad Business. Here's How.*, WALL ST. J. (Jan. 29, 2021, 11:49 AM ET), http://www.wsj.com/articles/apples-privacy-change-will-hit-facebooks-core-ad-business-heres-how-11611938750 (last visited Nov. 7, 2023).

193. Charles Duhigg, *How Companies Learn Your Secrets*, N.Y. TIMES (Feb. 16, 2012), http://www.nytimes.com/2012/02/19/magazine/shopping-habits.html (last visited Oct. 14, 2023).

Target began to employ predictive analytics more than twenty years ago.[194] The volume and sophistication of the patents that have been filed in this space indicate how much more advanced data-driven advertising has developed since then.[195] For instance, Meta's patents reveal how it can present hyper-targeted advertising in augmented reality.[196]

Marketers today know vast amounts about us and have increasingly sophisticated means of using this knowledge to predict our purchasing choices. Online monitoring, the Internet of Things, wearable technologies, and smart homes have already crept into our lives. These technologies enable a cycle of data collection, machine learning, and targeted solicitation.[197] The technologies enable firms to know what we need, want, and like better than we do.[198] As a result, consumers no longer have to waste time with shopping lists or hunting around for the product that fulfills their material desires. The bots will do it for us; and they will do it

194. *Id.*

195. *See* Murphy, *supra* note 192 (noting Meta's recent USPTO applications "reveal that Meta has patented multiple technologies that wield users' biometric data in order to help power what the user sees and ensure their digital avatars are animated realistically" but "also indicate how the Silicon Valley group intends to cash in on its virtual world, with hyper-targeted advertising and sponsored content"). For example, Facebook/Meta was issued U.S. Patent No. 11,239,399 on February 1, 2022, for a method of personalized advertising and U.S. Patent No. 11,244,996 on February 8, 2022, for a method for tracking users' facial expressions. Google was issued U.S. Patent No. 11,250,679 on February 15, 2022, that will enable cookie-less ad targeting.

196. *See id.*

197. They also come at a significant cost to our privacy, as well as our economic and mental health. *See, e.g.*, ZUBOFF, *supra* note 188, at 8 (decrying how surveillance capitalism profits from the capture and analysis of behavioral data); Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 995, 1028 (2014) ("The question of what constitutes a privacy violation is generally tied to control over personal information, with the logical consequence that increased collection and processing of data is usually linked to a greater privacy threat."); Kate Crawford & Jason Schultz, *Big Data and Due Process: Toward a Framework to Redress Predictive Privacy Harms*, 55 B.C. L. REV. 93, 96 (2014) (explaining how consumers are harmed by collection of personal information).

198. *See* BEN PRING, EUAN DAVIS & VICTORIA BOLAND, COGNIZANT, 21 MARKETING JOBS OF THE FUTURE 20 (2019), http://www.thecognizant.com/site/assets/files/2168/21-marketing-jobs-of-the-future-codex4428.pdf [https://perma.cc/ZNP6-4YKK] ("[C]ustomers no longer have to think about what they'd like to buy or do because the bots do all the hard work."); *id.* at 44 ("In the connected world of smart things, it won't be people making recommendations to their friends, but a combination of people and algorithms driven by AI and machine learning."); Utpal M. Dholakia, *The Perils of Algorithm-Based Marketing*, HARV. BUS. REV. (June 17, 2015), http://hbr.org/2015/06/the-perils-of-algorithm-based-marketing [https://perma.cc/U4HY-6R7D] ("Algorithms help marketers utilize customer-specific knowledge — demographics, previous behavior, fellow customers' choices — to craft customized offers and deliver them, often in real time."); Jennifer Valentino-DeVries & Jeremy Singer-Vine, *They Know What You're Shopping for*, WALL ST. J. (Dec. 7, 2012), http://www.wsj.com/articles/SB10001424127887324784404578143144132736214 (last visited Nov. 7, 2023) (discussing how comprehensively and precisely consumers are tracked online).

better and faster.[199] Gone are the days when consumers had to ask their friends for product recommendations. What their personal contacts are repeatedly buying, not returning, and positively reviewing may already be some of the inputs that go into the bot's product suggestion. A friend's recommendation of a laundry detergent is utterly subpar by comparison. Did the friend recall the correct trademark? How many different products did the friend test? Was the friend's evaluation biased by advertising or other positive associations with the brand? Are the friend's washing machine, water, and laundry habits sufficiently similar? Machines do not need to rely on limited or inaccurate information as consumers formerly did when they have vast stores of data on which to rely.[200] Search costs theory, like most economic theories, is premised on rational actors—consumers who make rational choices. Responding to targeted ads that are based on reliable data may be more rational than relying on memory, a friend's recommendation, or a non-personalized advertisement.

Formerly, personal shopping assistants, concierge services, and stylists were a luxury few could afford. Now, these services can be available to everyone as digital personal assistants—powered by algorithms, AI, and machine learning—crawl the internet to find products to recommend.[201] Consumer data and algorithms enable marketers to successfully suggest products that targeted consumers may have either not known existed, or realized they wanted. The deep knowledge these marketers have means that consumers may be solicited without first indicating that they are in the market. Consumers may not be searching for products, but marketers are finding them anyway. Consumers will soon learn that the products they want or need will come to them without their needing to search.

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199. *See, e.g.*, McKinnon & Rudolph, *supra* note 182 (highlighting Walmart's Jetblack service, which enables customers to text their shopping needs to Walmart, which will populate a shopping cart with suggested items).

200. *See, e.g.*, *id.* (noting that Kroger Grocery's AI-powered EDGE (Enhanced Display for Grocery Environment) app causes digital displays to change as customers approach to make personalized recommendations and offers).

201. *Id.* at 44. For instance, Amazon Assistant, a now-discontinued Chrome extension, enabled Amazon to make personalized product recommendations as consumers browsed other websites. *See* Rory Mellon, *Amazon Is Killing One of Its Most Underrated Shopping Features*, TOM'S GUIDE (Mar. 24, 2023), https://www.tomsguide.com/news/amazon-is-killing-one-of-its-most-underrated-features-this-sucks [https://perma.cc/GB8F-QSY8]; *see also* Daniel Allen, *What Is Amazon Assistant?*, ANDROID POLICE (Oct. 10, 2022), https://www.androidpolice.com/what-is-amazon-assistant/ [https://perma.cc/87YU-5YNP] ("In addition to giving individual product price comparisons, Amazon Assistant also does its best to guess what you're shopping for on a competitor's site and show you what Amazon offers. It seems to accomplish this by spying on what you've put in the search bar.").

Consumers are increasingly delegating the responsibility of making purchasing choices out of convenience.[202] Product recommendation engines have become ubiquitous on platforms such as Amazon, Google, Netflix, and Facebook. Even as early as 2013, thirty-five percent of consumer purchases on Amazon and seventy-five percent of Netflix streaming resulted from recommendations based on algorithms.[203] Just as Netflix and Spotify use AI to learn what you like to make personalized recommendations, marketers use AI to recommend purchases. Consumers are recognizing that algorithms can make purchasing decisions faster and better than they can.

As retail has become increasingly virtual, marketing ever more data-driven, and purchasing decisions driven by AI, predictive analytics are changing consumers' shopping experience and their behavior. Consumers are becoming more comfortable shopping on their AI-powered home devices and voice-controlled devices. It is a short distance from a consumer saying, "Alexa, buy cinnamon," to Alexa announcing, "I have added an item to your shopping cart that will be perfect for your nephew's ninth birthday next week." Brand loyalty will be an important input, for a time.[204] AI, however, can easily recognize how brand is merely a proxy for other characteristics that may prove to be more reliable inputs over time. In advertising, predictive analytics, or "predictive intelligence," relies on an ecosystem of data harvesting and AI to know what the consumer wants or needs before the consumer does.[205]

The consumer's ultimate satisfaction with a recommended product will reflect the accuracy of the program's algorithms, and will be fed back into the machine's learning. This satisfaction may or may not result in a consumer's brand loyalty, but it will likely result in loyalty to the personal assistant bot. In this way, producers may be increasingly more interested in conveying product information to machines than to consumers.

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202. This delegation is, in some ways, the natural next step from relying on machines for repeat purchases. Examples include subscription orders from various firms managed online, the Amazon Dash button that allows consumers to re-order products at the press of a button, and Alexa voice-activated repeat purchases. *E.g.*, *Welcome to Amazon Customer Service*, AMAZON, https://www.amazon.com/gp/help/customer/display.html (last visited Nov. 19, 2023).

203. Ian MacKenzie, Chris Meyer & Steve Noble, *How Retailers Can Keep Up with Consumers*, MCKINSEY & CO. (Oct. 1, 2013), http://www.mckinsey.com/industries/retail/our-insights/how-retailers-can-keep-up-with-consumers [https://perma.cc/N9MN-5LRR].

204. *See, e.g.*, *Shop with Alexa*, AMAZON, https://www.amazon.com/alexa-shopping-hub [https://perma.cc/C2BF-PM5U] (offering examples of how Alexa can help consumers repeat purchases, create grocery lists, and search for popular brands by using past purchasing behavior data).

205. *See, e.g.*, ACCENTURE, THE POST-DIGITAL ERA IS UPON US: ARE YOU READY FOR WHAT'S NEXT? 5 (2019), http://www.accenture.com/_acnmedia/pdf-94/accenture-techvision-2019-tech-trends-report.pdf [https://perma.cc/D5LD-7AF9] (describing Sam's Club's use of machine learning to mine purchase data and create a "smart" auto filled grocery shopping lists for customers).

Machine-to-machine communication offers accuracy and efficiency unparalleled by the search costs theory. In this AI marketplace, where machines communicate to machines, trademarks are becoming superfluous.

Search costs theory holds that trademarks enable consumer agency in purchasing decisions, but consumers are now willingly delegating certain aspects—and sometimes all—of this agency. Now AI drives purchasing decisions as it does the shopping for consumers. AI is assisting consumers' purchasing decisions, but it is also supplanting human choice. These AI-driven purchasing decisions are highly efficient and accurate. Search is costless and unlike consumers, AI is not prone to trademark deception. A consumer may confuse Coke and Koke, but AI can identify the difference. Concern for search costs is not relevant in the digital marketplace.

Trademark law has thus far failed to acknowledge the fundamental disruptions to the marketplace brought about by adtech. The marketplace that trademark law hinges on is becoming increasingly anachronistic. The current rationale of trademarks has no correspondence to a marketplace where consumers are micro-targeted with data-driven algorithms to suggest purchases that may be precisely what the consumer wants, even though they did not know they desired it.

Adtech combines targeted advertising—showing ads only to consumers with defined characteristics[206]—with tracking technology, which enables advertisers to target users as they move around the internet.[207] Online, targeted advertising is facilitated by platforms, such as Google and Facebook, that aggregate data on their users and make it available to advertisers. Micro-targeted advertising uses the same technologies but is hyper-targeted based on increased stores of data and

206. *See* Randal C. Picker, *Online Advertising, Identity and Privacy* 17–18 (U. Chi. L. Sch., John M. Olin L. & Econ. Working Paper No. 475, 2009).

207. Adam Tanner, *How Ads Follow You from Phone to Desktop to Tablet*, MIT TECH. REV. (July 1, 2015), http://www.technologyreview.com/2015/07/01/167251/how-ads-follow-you-from-phone-to-desktop-to-tablet/ [https://perma.cc/28CY-M4G8].

AI.[208] Based on predictive analytics, micro-targeted ads lead to a higher purchase rate.[209]

Consider the ability of Meta, Facebook's parent company, to target consumers. Facebook tracks demographics, behavioral attributes, and interest categories for every user in the United States. It learns users' interests from clicks, likes, websites visited, and apps and services used.[210] It also gathers data based on its users' activity across Meta companies and products, including information scraped from Facebook and Instagram profiles and websites that users have logged into with Facebook.[211] In addition, it gathers data from other websites and apps that use Facebook's "business tools."[212] If a consumer looks at a shirt on a retailer's site, this information can be sent back to Facebook and used by any advertiser with which it contracts.[213] Facebook also gathers geo-location data on users that enables advertisers to target consumers based on their movement.[214] Additionally, Facebook invites advertisers to contribute to its store of data by uploading specific customer information such as phone numbers, email addresses, home addresses, and birthdays into its business tools. Facebook then associates this personal identifying information with a Facebook profile, enabling it to learn more about its users.[215] Facebook uses all this data to train its algorithms to suggest subsets of users to target with specific ads.

Facebook has created specialized targeted advertising products for marketers. For example, Facebook's look-alike audience targeting feature

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208. Oana Barbu, *Advertising, Microtargeting and Social Media*, 163 PROCEDIA SOC. & BEHAVIORAL SCI. 44, 44 (2014) (defining micro-targeting as "a way to successfully create personalized messages or offers, correctly estimate of their impact (in regards to sub-grouping) and delivery directly to individuals" (citing TOM AGAN, SILENT MARKETING: MICRO-TARGETING (2007), http://adage.com/images/random/microtarget031207.pdf (last visited Nov. 18, 2023))); *see also* Ashwin Machanavajjhala, Aleksandra Korolova & Atish Das Sarma, *Personalized Social Recommendations - Accurate or Private?*, 4 VLDB ENDOWMENT 440 (2011); Dokyun Lee, Kartik Hosanagar & Harikesh S. Nair, *Advertising Content and Consumer Engagement on Social Media: Evidence from Facebook* (Working Paper, 2015).

209. *See* MacKenzie et al., *supra* note 203 (listing Amazon, Google, Netflix, and Facebook among the list of companies seeing higher purchase rates); YAN LAU, BUREAU OF ECON., FTC, ECONOMIC ISSUES: A BRIEF PRIMER ON THE ECONOMICS OF TARGETED ADVERTISING 5 (2020).

210. Till Speicher, Muhammad Ali, Giridhari Venkatadri, Filipe Nunes Ribeiro, George Arvanitakis, Fabrício Benevenuto, Krishna P. Gummadi, Patrick Loiseau & Alan Mislove, *Potential for Discrimination in Online Targeted Advertising*, 81 PROC. MACH. LEARNING RSCH. 1, 3, 7 (2018).

211. *About Facebook Ads*, FACEBOOK, http://www.facebook.com/ads/about [https://perma.cc/2CXV-QXVK].

212. *Id.*

213. *Id.*

214. *Id.* Facebook also monitors where its users connect to the internet and where they use their phones. *Id.*

215. *Id.*; *see also* Speicher et al., *supra* note 210, at 4–5.

can build a population of target consumers that corresponds with a list of actual customers an advertiser provides.[216] In addition, Facebook's marketing application programming interface enables advertisers to input a piece of text and receive a suggested list of other correlating attributes.[217] These terms may then lead to other matched terms that can help an advertiser more precisely target an audience.

Firms work together to combine numerous data points on individual consumers. A post on Twitter reported in the press explains how this works.[218] By visiting someone's home, a consumer may then receive ads for the toothpaste brand purchased by the homeowner. The advertiser made the connection not because a smart speaker heard the two mention the brand or tracked the consumers' online search for the brand. Instead, this was possible because many apps collect data from our phones such as our unique device IDs and our locations. Data aggregators pay to pull data from everywhere they can. One source of rich data trails is consumers' purchases that are linked to loyalty programs, such as a grocery store or frequent flyer program. Aggregators buy these datasets and match them with datasets from various different firms by consumers' phone numbers and email addresses. The GPS location of our phones can also be monitored. These locations can be mapped and compared to other peoples' phone to reverse engineer our contacts. At this point, the interests and predilections of our contacts can be cross-referenced against our browsing and purchase histories. Upon all this data, products are suggested, such as the toothpaste used by one of our contacts.

The vast amounts of data these firms are armed with tells them which targets offer the best return on investment and enables them to micro-target these consumers.[219] Marketers know that sales are influenced by peer suggestions, and that some peers are more influential than others in

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216. *How to Use Custom or Lookalike Audiences*, META, http://www.facebook.com/business/help/572787736078838?id=176276233019487 [https://perma.cc/79F7-MR33].

217. Speicher et al., *supra* note 210, at 8–9. For instance, an advertiser can input "Fox" and receive the suggestion "The Sean Hannity Show," which on Facebook will correspond with a subset that is a ninety-five percent match. *Id.* at 10–11.

218. Robert G. Reeve (@RobertGReeve), TWITTER (May 24, 2021, 8:32 PM), http://twitter.com/robertgreeve/status/1397032784703655938 [https://perma.cc/B9T4-3M6W].

219. One of the important new positions in adtech is the data ethnographer, who combs data to reveal nuanced insights about consumers to employ in targeting advertising. *See* Siddharth Venkataramakrishnan, *What Marketers Need to Understand About Their Industry's New Technology*, FIN. TIMES (Feb. 25, 2020), http://www.ft.com/content/834cc9ce-3ba2-11ea-b84f-a62c46f39bc2 [https://perma.cc/B8KM-5LNE]; *see also* Graeme Wood, *Anthropology Inc.*, ATLANTIC (Mar. 2013), http://www.theatlantic.com/magazine/archive/2013/03/anthropology-inc/309218/ (last visited Nov. 7, 2023) (noting that Microsoft employs the second largest number of anthropologists after the United States government).

prompting sales.[220] For instance, Instagram users can tag products in the photos they post that enable others to immediately purchase that product simply by clicking it.[221] What might seem like an exercise of choice—to rely on a select peer—may in fact have been invisibly orchestrated by algorithms. Significantly, such purchases are made without the search assistance of trademarks, which may not be mentioned or seen.

The correspondence between trademarks and search costs is diminishing for both consumers and marketers. Formerly, trademarks were useful proxies for marketers for particular market segments and demographics, such as income, location, or age. Data driven marketing, however, has exposed them as crude proxies for audience.[222] Narrowly targeted ads are clicked as much as 670% more than ordinary ones.[223] Why waste ads on sweeping audiences—known as "spray and pray"—when a marketer can reach, on a mass scale, the precise consumers who will respond through micro-targeting.[224] Today, ad buyers "can aim their ads at as few as 20 of the 1.5 billion daily users of [Facebook]."[225]

D. The Disappearance of Search and Ads

These technologies have completely transformed the very nature of how sellers sell. These are not your father's banner ads. If an advertiser is guessing at what a consumer might click and purchase, it had better present this suggestion in the form of an advertisement so that the consumer understands why the information has been presented. However, when an advertiser knows with some degree of confidence that the

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220. *See generally* Ravi Bapna & Akhmed Umyarov, *Do Your Online Friends Make You Pay? A Randomized Field Experiment on Peer Influence in Online Social Networks*, 61 MGMT. SCI. 1902 (2015) (studying empirically how peer influence impacts decision-making).

221. *Get the Latest from Instagram*, INSTAGRAM (Oct. 6, 2021), https://business.instagram.com/blog/instagram-shopping-product-tags-customers [https://perma.cc/FD2J-3XQ8] ("If you have a business or creator account, have uploaded products to your catalog and enabled Instagram Shopping, you can tag the products that are featured in your content so customers can shop in the moment of discovery.").

222. One marketing firm drives this point home by listing consumer attributes that advertisers may want to target, such as "[h]as 2 dogs," "[v]egetarian," and "[l]arge collection of watches." *Personalized Creative for Brands*, FUSION92, https://media.fusion92.com/personalized-creative-for-brands/ [https://perma.cc/JHD3-6Q8A].

223. OSBORNE CLARKE, INTERNATIONAL ONLINE BEHAVIOURAL ADVERTISING SURVEY 2010, at 7 (2010).

224. *See* Natasha Singer, *Your Online Attention, Bought in an Instant*, N.Y. TIMES (Nov. 17, 2012), https://www.nytimes.com/2012/11/18/technology/your-online-attention-bought-in-an-instant-by-advertisers.html (last visited Nov. 5, 2023).

225. Natasha Singer, *'Weaponized Ad Technology': Facebook's Moneymaker Gets a Critical Eye*, N.Y. TIMES (Aug. 16, 2018), https://www.nytimes.com/2018/08/16/technology/facebook-microtargeting-advertising.html (last visited Nov. 5, 2023).

consumer will buy the suggested product, the best strategy may be to sneak in the suggestion without announcing itself as an ad. For example, such ads appear on Facebook just as the user's friends' updates do.

Not only do product suggestions look different than ads, but algorithms can also make suggestions to consumers even when they are not shopping.[226] The marketer need not wait for the consumer to approach the marketplace when it can unobtrusively reach consumers wherever they are and at any time. As result of the transformation of online selling, consumers are changing the way they shop. Consumers have fewer reasons to go to physical stores now that sophisticated digital shopping comes to them. They do not even need to go to a store's website; simply checking one's phone can initiate shopping. We are in the era of "ubiquitous shopping," where to be online using any device is to be shopping.[227]

In the "integrated digital marketplace"[228] that is now embedded in our daily lives, shopping is not only pervasive, but also invisible. New surveillance technologies seamlessly integrate advertising into our daily lives. Consumers can shop through both video and voice. A 2018 retail industry rag gushed, "[v]oice recognition technologies are . . . taking the commercial battleground right into the heart of consumers' homes."[229]

Ads are not triggered by search, but are instead triggered by our mere presence online.[230] Consumers are being monitored across a vast ecosystem of smart devices using, among other technologies, geo-location, voice recognition, facial recognition, image classification, video

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226. In 2015, the Federal Trade Commission issued guidance on "native advertising" in an effort to protect consumers from ads that do not appear to be ads. *See* FED. TRADE COMM'N, ENFORCEMENT POLICY STATEMENT ON DECEPTIVELY FORMATTED ADVERTISEMENTS, https://www.ftc.gov/system/files/documents/public_statements/896923/151222deceptiveenforcement.pdf [https://perma.cc/4X6Q-MBBU].

227. *See* RETAIL INDUS. LEADERS ASS'N (R)TECH CTR. FOR INNOVATION & ACCENTURE, *Delivering for the New Customer: The Move to Ubiquitous & Ultra-Personal Shopping* (2018), https://rilastagemedia.blob.core.windows.net/rila-web/rila.web/media/media/pdfs/reports/accenture-report-the-changing-consumer-and-the-new-definition-of-retail.pdf?ext=.pdf [https://perma.cc/Z4T7-GB2N].

228. *Id.*

229. Michelle Grujin, *Ubiquitous Shopping: Why This Trend Is Set to Transform the Next Phase of Retail – Inside Retail*, WINDOWSWEAR (Dec. 15, 2018), https://www.windowswear.com/ubiquitous-shopping-why-this-trend-is-set-to-transform-the-next-phase-of-retail-inside-retail/ [https://perma.cc/NP8X-9FEE].

230. *See* Bingjie Liu & Lewen Wei, *Machine Gaze in Online Behavioral Targeting: The Effects of Algorithmic Human Likeness on Social Presence and Social Influence*, 124 COMPUTS. HUM. BEHAV., Nov. 2021, at 1, 3 (dubbing "machine gaze" as the ability for technology to personalize algorithms in online behavioral targeting from presence online).

analysis, and even biometric data from wearable technology.[231] Not only what we click, but even our natural, physical gestures can trigger ads while we are connected.[232] When an ad finds you, it may have relied on immense stores of information about you including your preferences, motivations, and relationships.

Advertisers are endeavoring to dissolve the line between commerce and content. "Frictionless transactions," those seamless purchasing interactions via digital wallets and in-app and contact-less payments, lead to more instantaneous purchases. Beyond faster checkout, marketers remove friction by giving ads the illusion of passive discovery. Formerly, ads aimed to drive traffic from content sites to retail sites. Now, ads do not navigate away from content, but seek to enable shopping within content.[233] Whereas traditional product placement in movies and television could only suggest *future* purchases, content itself has now become immediately shoppable.[234] Armed with knowledge of who the viewer is, marketers can personalize the product depicted, showing them something they are bound to want and can buy instantly, or algorithms can suggest content that contains the products that are a match for them. Marketers aim to present "authentic" content based on knowledge of the consumer that "provides solutions for the consumer's individual lifestyle

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231. Yogesh K. Dwivedi, Laurie Hughes, Abdullah M. Baabdullah, Samuel Ribeiro-Navarrete, Mihalis Giannakis, Mutaz M. Al-Debei, Denis Dennehy, Bhimaraya Metri, Dimitrios Buhalis, Christy M.K. Cheung, Kieran Conboy, Ronan Doyle, Rameshwar Dubey, Vincent Dutot, Reto Felix, D.P. Goyal, Anders Gustafsson, Chris Hinsch, Ikram Jebabli, Marijn Janssen, Young-Gab Kim, Jooyoung Kim, Stefan Koos, David Kreps, Nir Kshetri, Vikram Kumar, Keng-Boon Ooi, Savvas Papagiannidis, Ilias O. Pappas, Ariana Polyviou, Sang-Min Park, Neeraj Pandey, Maciel M. Queiroz, Ramakrishnan Raman, Philipp A. Rauschnabel, Anuragini Shirish, Marianna Sigala, Konstantina Spanaki, Garry Wei-Han Tan, Manoj Kumar Tiwari, Giampaolo Viglia & Samuel Fosso Wamba, *Metaverse Beyond the Hype: Multidisciplinary Perspectives on Emerging Challenges, Opportunities, and Agenda for Research, Practice and Policy*, INT'L. J. INFO. MGMT., Oct. 2022, at 1.

232. "Ubiquitous computing," or "ambient computing," seeks to make human movement and gestures intelligible to computers through radar sensors. *See* Mark Wilson, *Google Is Designing Computers that Respect Your Personal Space*, FAST CO. (Mar. 1, 2022), https://www.fastcompany.com/90725730/google-is-designing-computers-that-respect-your-personal-space [https://perma.cc/5BMX-SGQ7]; *see also* Nicole Nguyen, *New Amazon Echo Show 10 Review: Alexa Has Got Its Eye on You*, WALL ST. J. (Feb. 24, 2021, 8:00 AM ET), https://www.wsj.com/articles/amazon-echo-show-10-review-alexa-has-got-its-eye-on-you-11614171608 (last visited Nov. 5, 2023).

233. *See, e.g.*, Umberto Torrielli, *The Post-Cookie Future: Driving Outcomes Through Context*, BLOOMBERG SPONSORED CONTENT, https://sponsored.bloomberg.com/article/business-reporter/the-post-cookie-future-driving-outcomes-through-context (last visited Nov. 18, 2023) (mentioning the resurgence of contextual advertising).

234. For example, AMC Networks has introduced its TEAL (Technology Enabled Audience Led) program that enables users to shop from television shows. Parker Herren, *AMC Networks Brings Shoppable Ads to the Upfronts*, AD AGE (Apr. 6, 2022), https://adage.com/article/special-report-tv-upfront/amc-networks-brings-shoppable-ads-upfronts/2410681 (last visited Nov. 5, 2023).

and comfortably prompts action."[235] The goal is to present consumers with curated shoppable content wherever they happen to be rather than waiting until they have decided to shop.

Targeted ads now not only target the right consumer, but they also target the right time to present the product. Digital marketing now utilizes biometric data to monitor and analyze consumers' emotional states.[236] Emotional advertising[237] is substantially more effective when it can target consumers at precisely the right moment, when they are in the emotional state to receive the suggestion.[238] By tapping into a consumer's emotional state in real time, marketers know just when consumers feel confident, motivated, vulnerable, or in search of comfort.

Consumers used to watch ads; now, ads watch them. Now that the marketer has near-perfect information about the consumer, the consumer has little need of the informational value of the trademark. In this world, trademarks play an increasingly small role. This is not the world to which search costs theory was addressed.

IV. REEVALUATING TRADEMARKS IN AN AI-DRIVEN MARKETPLACE

The AI-driven marketplace undercuts trademark law's rationale. The search costs theory posits that trademarks are worthy of protection because of their value in efficiently assisting consumers to make informed purchasing decisions.[239] Consequently, search costs theory is an argument that the social utility of efficiently conveying product information to consumers outweighs any anticompetitive effect of monopolizing information.[240] Yet, as compared with trademarks, adtech provides consumers with higher levels of both accuracy and efficiency. By making this comparison, however, this Article does not argue that consumers are

235. Lane, *supra* note 168.

236. One up-and-coming job in marketing is the "Neuro A/B Tester" who "report[s] on the brain activity of customers when they come into physical contact with our brand during experiential and sensory campaigns." PRING ET AL., *supra* note 198, at 12. Another is the "Mood & Empathy Manager" who "engineer[s] the right feelings at precisely the right point, so customers decide to engage longer." *Id.* at 16. Additionally, the "Science Liaison/Bio-marketing Specialist" uses biometric data collected from consumer's physiological responses to deliver "highly personalized brand communications." *Id.* at 34.

237. *See generally* Peter Noel Murray, *How Emotions Influence What We Buy*, PSYCH. TODAY (Feb. 26, 2013), https://www.psychologytoday.com/us/blog/inside-the-consumer-mind/201302/how-emotions-influence-what-we-buy [https://perma.cc/5SV7-6G7C].

238. *See* Murphy, *supra* note 192 ("[E]ye gaze direction and pupil activity may implicitly contain information about a user's interests and emotional state . . . .").

239. *See supra* section I.C.

240. *See supra* Part I.

better off with adtech than without it. Although we are rightly skeptical of adtech, trademarks are justified by the contention that they serve and protect consumers. Entrenched in this contention is the notion that consumers need trademarks to make informed choices.

The algorithmic world, however, is increasingly eliminating human agency in shopping. While consumers formerly made decisions about what they needed or wanted, when to shop, and which product to purchase, adtech has replaced these choices with a single decision: to buy now or not. The challenges that these technologies present to our settled understanding of the value of trademarks force us to rethink the cost-benefit analysis of protecting them. Perversely, adtech lays bare how trademarks can be used against consumers' interests. Though adtech is designed to operate stealthily, as a phenomenon its objective of manipulating consumer behavior is transparent. Juxtaposed with trademarks, as this Article has done, adtech also makes the disservice trademarks sometimes do to consumers more transparent than it has been in the past. Consumer choice has always been a site of manipulation.

In the context of adtech, it has become more evident that consumers are not adequately protected when product information is not accurate and they lack the ability to detect the inaccuracy.[241] At a minimum, if the information conveyance function can now be performed without the aid of trademarks, at least in some cases, the diminished value of trademarks should be accounted for in the law. To analyze the cost-benefit analysis of trademark protection, the benefit—the informational value of trademarks—must be reconsidered. And the value of the information conveyance performed by trademarks must be evaluated in light of the current availability of alternative means.[242] The search costs theory assumes the unavailability of alternative means to address the asymmetry of information between producers and consumers.[243] Now, however,

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241. Consumer protection may be achieved through false advertising law and administrative regulation by the Federal Trade Commission. Federal false advertising law protects consumers against advertising that "misrepresents the nature, characteristics, qualities, or geographic origin of . . . goods, services, or commercial activities." 15 U.S.C. § 1125(a). Under the Federal Trade Commission Act, the FTC has authority to prohibit any practices in the marketplace deemed to be "unfair or deceptive." 15 U.S.C. § 45. Michael Grynberg, *More Than IP: Trademark Among the Consumer Information Laws*, 55 WM. & MARY L. REV. 1429, 1433 (2014) ("[T]rademark law might benefit from 'offloading' some of its expanding scope to other consumer information regimes.").

242. For example, Glynn Lunney called for a reevaluation of the cost-benefit analysis of trademark law generally by articulating three factors to be considered: (1) the extent to which the trademark conveys otherwise unavailable information; (2) the value of the information; its materiality; and (3) the availability of alternative means of conveying this information. Lunney, *supra* note 29, at 435.

243. *See, e.g.*, S. REP. NO. 79-1333, at 3 (1946) ("[One] purpose underlying any trade-mark statute . . . is to protect the public so it may be confident that, in purchasing a product bearing a

consumers can utilize an arsenal of digital technologies to efficiently connect them with products that meet their desires. The need to rely on trademarks to convey information about products is therefore diminished. In some cases, the trademark may be helpful to consumers, while in others it may be superfluous or even an interference in making an optimal choice. In any event, these technological alternatives dramatically change the value of trademarks for consumers and so should change the cost-benefit analysis of protecting them. The search costs rationale for protecting trademarks is no longer descriptively accurate in many, if not most, cases.

Scholars have warned of the significant statutory and judicial expansion of trademark protections since the 1980s.[244] The consensus view in the academy is that there is now too much protection.[245] In the face of these mounting critiques, however, trademark rights have continued to be ratcheted up.[246] The search costs theory has immunized trademark law from these critiques. The protection of trademarks is now out of step with the functional value of trademarks. Today, and more so in the future, trademarks may offer no informational value, no search efficiency, and may even obfuscate such informational values. The correspondence between trademarks and the search costs rationale is lost.

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particular trade-mark which it favorably knows, it will get the product which it asks for and wants to get.").

244. *See, e.g.*, Lunney, *supra* note 29, at 371 ("This expansion has encompassed both the recognition of new trademark subject matter and a more complete bundle of ownership rights . . . ." (footnotes omitted)); Kenneth L. Port, *The Congressional Expansion of American Trademark Law: A Civil Law System in the Making*, 35 WAKE FOREST L. REV. 827, 830 (2000) [hereinafter Port, *Congressional Expansion*] ("None of the existing social, economic, or legal justifications supporting American trademark law encourage, let alone tolerate, such [trademark] expansion."); Jessica Litman, *Breakfast with Batman: The Public Interest in the Advertising Age*, 108 YALE L.J. 1717, 1721–28 (1999) (criticizing the rationale of trademark law in various lawsuits alongside evolving trends in advertising and public interest); Lemley, *supra* note 57, at 1697–98 (arguing that courts replaced the traditional rationale for trademark law with new rationales favoring trademark owners); Glynn S. Lunney, Jr., *Trademark's Judicial De-Evolution: Why Courts Get Trademark Cases Wrong Repeatedly*, 106 CALIF. L. REV. 1195, 1197 (2018) (warning that courts expanded trademark law far too broadly and caused anticompetitive outcomes); David J. Franklyn, *Owning Words in Cyberspace: The Accidental Trademark Regime*, 2001 WIS. L. REV. 1251, 1252 (2001) ("That courts have expanded exclusivity rights in favor of mark owners and gradually loosened restrictions on alienation is illustrative of the fact that trademark law has become increasingly propertized."); Kenneth L. Port, *The Expansion Trajectory: Trademark Jurisprudence in the Modern Age*, 92 J. PAT. & TRADEMARK OFF. SOC'Y 474, 474 (2010) ("Congress has enlarged the trademark right at the behest of special interests without paying attention to the consequences.").

245. *See e.g.*, Port, *Congressional Expansion*, *supra* note 244, at 829 ("[Trademark law] development is not only inconsistent with the common law origins of the United States' trademark system, but it also rests on questionable constitutional ground.").

246. McGeveran, *supra* note 51, at 51 ("Trademark rights have expanded dramatically over time from consumer-oriented safeguards against the diversion of customers to comprehensive protectors of brand identity.").

To begin recalibrating trademark protections in light of the diminished functional value trademarks now offer vis-à-vis other available technologies, one must account for another change in the marketplace that has not yet disturbed the rationale of trademark protection. Although we may acknowledge it in our language, the shift in concept from trademark to brand has only had minimal impact on the law. The consequence of understanding trademarks as the sought-after good in and of themselves, will be particularly evident in the virtual world.

A. The Morphed Function of Trademarks

Although this Article predicts that in the future trademarks will be superfluous,[247] there is one remaining function that trademarks may serve. Increasingly, the trademark, or "brand," functions not as a packet of information that travels with the product, but as the product itself. Consumers desire the product because they want to own the brand. The brand is the commodity exchanged.

As the informational value of trademarks has diminished over time, for many trademarks, their commercial value has grown. The world's most valuable brands are steadily increasing in value out of proportion to inflation.[248] It is no coincidence that as trademarks' commercial value has increased, so have their legal protections.[249]

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247. *See also* Lemley, *supra* note 57, at 1688 (asserting that courts are protecting marks "as things valuable in and of themselves" and that recent developments "threaten to stretch the rationale of trademark law beyond all limits"); Litman, *supra* note 244, at 1718 ("Legal protection for trade symbols, in the absence of confusion, disserves competition and thus the consumer."); Lunney, *supra* note 29, at 371 (stating that the "shift from viewing a trademark as a source of information about a product, to viewing the trademark as the product, has sharply changed the emphasis and context in which trademark's traditional themes have played out").

248. INTERBRAND, BEST GLOBAL BRANDS 2021, at 15 ("The combined value of the top 100 brands increased from $2,326,491 million in 2020 to $2,667,524 million in 2021, an overall increase of 15%.").

249. *See* Lunney, *supra* note 29, at 371 (criticizing the "substantial and ongoing expansion of trademark protection"); Deborah R. Gerhardt, *Consumer Investment in Trademarks*, 88 N.C. L. REV. 427, 429 (2010) ("Trademark law has lost its way."); Lemley, *supra* note 57, at 1688 ("Courts protect trademark owners against uses that would not have been infringements even a few years ago and protect as trademarks things that would not have received such protection in the past."); Mark P. McKenna, *The Normative Foundations of Trademark Law*, 82 NOTRE DAME L. REV. 1839, 1840 (2007) [hereinafter McKenna, *Normative Foundations*] ("Trademark law unquestionably covers much more ground now than it did at the beginning of the twentieth century, and many of its more recent developments are fundamentally inconsistent with the normative goals of traditional trademark protection."); Bone, *Trademark Infringement*, *supra* note 51, at 1330–36; Rebecca Tushnet, *Registering Disagreement: Registration in Modern American Trademark Law*, 130 HARV. L. REV. 868, 869 (2017) ("Courts too readily find too many acts to be infringing even when they're harmless or actually useful to consumers.").

The terminology has shifted from "trademark" to "brand" in recognition of their changed value in the marketplace. Historically, in the domain of law, lawyers, judges, and scholars spoke of "trademarks," while trademark owners and marketing professionals referred to "brands."[250] Recently however, even in the law the discussion is increasingly about brands. Both the International Trademark Association (INTA)[251] and the World Intellectual Property Organization (WIPO)[252] have embraced this shift in terminology, despite the reference to trademarks and intellectual property in their names.

Though the legal community may have been slow to pivot from trademark to brand,[253] the business world and the marketplace witnessed the phenomenon of the brand in the late eighties.[254] Therefore, even as the Chicago School was describing the function of the trademark, trademark law was already in the midst of a major shift from the role it had played from the early twentieth century.

There has always been somewhat of a curious mismatch between marketing scholarship and practice, on the one hand, and trademark law, on the other.[255] In marketing literature, a "brand" is defined as "a

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250. Deven R. Desai, *From Trademarks to Brands*, 64 FLA. L. REV. 981, 985 (2012) ("While trademark law sees trademarks and brand as synonymous, brand scholarship and practice recognize that they are not.").

251. For instance, in 2011, INTA described itself as "a not-for-profit membership association dedicated to the support and advancement of *trademarks* and related intellectual property." *About INTA*: *Overview*, INT'L TRADEMARK ASS'N (emphasis added), https://web.archive.org/web/20110110013639/http://www.inta.org/About/Pages/Overview.aspx (last visited Nov. 18, 2023). In contrast, it currently states, "[w]e're a global network of *brand* owners and professionals dedicated to supporting trademarks and related intellectual property. Explore how we support *brands* through our work in advocacy, events, and resources . . . ." INT'L TRADEMARK ASS'N (emphasis added), https://www.inta.org/ [https://perma.cc/QG2T-6YVV].

252. In its 2013 report, the WIPO stated that "[f]rom its humble beginning as an identifier of origin, branding has evolved into a sophisticated business tool employing professionals as diverse as data analysts, lawyers, linguists, graphic artists, psychologists and celebrity actors." WORLD INTELL. PROP. ORG., 2013 WORLD INTELLECTUAL PROPERTY REPORT: BRANDS – REPUTATION AND IMAGE IN THE GLOBAL MARKETPLACE 3 (2013), https://www.wipo.int/edocs/pubdocs/en/intproperty/944/wipo_pub_944_2013.pdf [https://perma.cc/858Q-5W7L] [hereinafter 2013 WORLD INTELLECTUAL PROPERTY REPORT].

253. Because the theoretical foundation of trademark law has always bewildered courts, it is certainly possible to find old trademark cases that seem to have recognized the capacity of brands. For instance, a 1901 British decision described a trademark as "the attractive force which brings in custom." Inland Revenue Comm'rs v. Muller & Co's Margarine, Ltd, [1900–03] All ER Rep. 413 (HL).

254. *See, e.g.*, DAVID A. AAKER, MANAGING BRAND EQUITY: CAPITALIZING ON THE VALUE OF A BRAND NAME 5 (1991) (describing Proctor & Gamble's enormous success in branding and advertising).

255. *See* Jeremy N. Sheff, *The Ethics of Unbranding*, 21 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 983, 989–90 (2011) (noting ethical approaches and distinctions in trademark law doctrine); Sheff,

'reputational asset' which has been 'developed over time so as to embrace a set of values and attributes', resulting in a 'powerfully held set of beliefs by the consumer.'"[256] Whereas trademarks have been thought to convey limited information about source or quality,[257] brands have been understood to have the capacity for a more expansive function.[258] A WIPO report notes that "[b]rands are not merely viewed as instruments for differentiation."[259] Brands are not a proxy for information, quality, or past experiences. Instead, brands convey associations, reputation, emotions, psychology, and image.[260] A brand is said to be a company's most valuable asset.[261] It is a means to dominate a market segment.[262]

Brands are manufactured desire. They are products of advertising. They are not the label on a product, but the product itself.[263] As Professor Rochelle Dreyfuss observed, "ideograms that once functioned solely as signals denoting the source, origin, and quality of goods, have become products in their own right, valued as indicators of the status, preferences,

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Biasing Brands, *supra* note 59, at 1259 ("[T]he marketing and psychology literatures have arrived at somewhat different conclusions concerning the nature of consumer decision-making than those offered by . . . the search-costs model."); Rochelle C. Dreyfuss, *Expressive Genericity: Trademarks as Language in the Pepsi Generation*, 65 NOTRE DAME L. REV. 397, 398 (1990) ("Trademark law has not kept pace with trademark practice.").

256. PETER URWIN, VALERIYA KARUK, PHILIP HEDGES & FRANK AUTON, VALUING BRANDS IN THE UK ECONOMY 9 (2008) (footnotes omitted).

257. *See supra* section II.B; 3 MCCARTHY, *supra* note 22, § 18:55.

258. *See generally* Lane, *supra* note 168; AAKER, *supra* note 254. Because the concept of brand includes "brand experience," and is much larger than any one trademark, firms may use utility patents, design patents, copyrights, and trade secrets, in addition to trademarks, to protect their business model. *See* 2013 WORLD INTELLECTUAL PROPERTY REPORT, *supra* note 252, at 11, 13, 68–69.

259. 2013 WORLD INTELLECTUAL PROPERTY REPORT, *supra* note 252, at 22.

260. *See* THEY MAKE DESIGN, *Revealing the Psychology of Branding: Strategies for Success*, MEDIUM, https://medium.com/theymakedesign/psychology-of-branding-5f64ba76f8 [https://perma.cc/H973-HH82]; *see also* Amanda Hess, *What Happens when People and Companies Are Both Just 'Brands'?*, N.Y. TIMES MAG. (May 1, 2018) https://www.nytimes.com/2018/05/01/magazine/what-happens-when-people-and-companies-are-both-just-brands.html (last visited Nov. 18, 2023).

261. *See* AAKER, *supra* note 254, at 14 ("For many businesses the brand name and what it represents are its most important asset . . . ."); *see also* MARK SHERRINGTON, ADDED VALUE: THE ALCHEMY OF BRAND-LED GROWTH 70 (2003); R.S.N. PILLAI, MARKETING MANAGEMENT 239 (2010).

262. For example, Glynn Lunney observed that branded products constitute their own separate product market. Lunney, *supra* note 29, at 430.

263. *See* Litman, *supra* note 244, at 1727–28.

and aspirations of those who use them."[264] They are Veblen goods[265] that are conspicuously consumed.

When consumers desire the brand as the product in and of itself, the trademark ceases to equate to information about source of origin. That is, the material reason for the purchase is to own the brand and not for the unobservable information about the product that the trademark conveys.

The function of these marks may still be informational, but not to inform the purchaser; they are to inform the purchaser's peers. Consumers are still attracted to brands, but for their status value and far less so for their informational value. Today, brand value has begun to supplant trademark value, but trademark law has not been adjusted accordingly.

Trademark law has not yet acknowledged this profound yet subtle shift from trademark to brand. It continues to protect trademarks for the informational value they theoretically offer while trademark owners, marketers, and consumers are increasingly only interested in a brand's reputational value.

B. Shopping in the Metaverse

The shift from trademark to brand was prescient for trademark owners. In the virtual world, consumers will not need trademarks to inform them of a good's features or qualities. Virtual goods are not made from better or worse quality leather, they are not hand- or machine-made, and they do not originate in Italy or China. But a handbag indistinguishable in quality, characteristics, or source may be expensive or inexpensive because it may be a Gucci handbag or a ZGGCD handbag. In the virtual world, brands' status-communicating function is enhanced while trademarks' information function is diminished.

The introduction of synthetic media—AI-generated content—has brought about a paradigm shift in marketing.[266] Virtual spaces present marketers with strategic moments to expose consumers to visual prompts. There are increasing opportunities to shop within virtual and augmented reality, video games, and the metaverse.[267] Marketers are attracted to these spaces because not only are their target audiences spending larger

264. Dreyfuss, *supra* note 255, at 397.

265. *See generally* James Chen, *Veblen Good: Definition, Examples, Difference from Giffen Good*, INVESTOPEDIA (June 29, 2023), https://www.investopedia.com/terms/v/veblen-good.asp [https://perma.cc/MAC5-GGGA] ("A Veblen good is a good for which demand increases as the price increases due to its exclusive nature and appeal as a status symbol.").

266. Venkataramakrishnan, *supra* note 219.

267. *See, e.g.*, Murphy, *supra* note 192 ("[Meta] intends to cash in on its virtual world, with hyper-targeted advertising and sponsored content that mirrors its existing $85bn-a-year ad-based business model.").

amounts of time there,[268] but they also pay better attention to visual stimuli in these spaces. One arena in which this has become common is in video games where players are exposed to in-game product placement.[269] Here marketers merge advertising with content with built-in feedback in real-time.

NFTs and the metaverse are the new frontier for brands. Some commentators suggest that the market for branded products in the metaverse could rival the market for branded products in the analog world.[270] Already, firms as diverse as Nike, McDonald's, Victoria's Secret, and Walmart, have filed trademark applications for registration for a range of *virtual* products.[271] Moreover, trademark disputes have begun even before the metaverse is fully ready for commerce.[272] Marketers and brand owners are already eyeing NFTs and the metaverse as "an exciting way for brands to interact with their consumers."[273] This interaction of brands with consumers in a virtual space is something not contemplated by search costs theory. Consumers will buy virtual Nike shoes for their avatar neither for the quality of those virtual shoes nor for their origin.

The metaverse will be for trademarks the equivalent of stage actors breaking the fourth wall. Here it is impossible to think of the trademark as having any informational value. In the metaverse, it is explicit that the products are the brands.[274]

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268. PRING ET AL., *supra* note 198, at 42.

269. Egliston, *supra* note 229 ("Increasingly, video game companies exploit this data to capitalize user attention through targeted advertisements.").

270. Bernard Marr, *How Luxury Brands Are Making Money in the Metaverse*, FORBES (Jan. 19, 2022, 1:56 AM EST), https://www.forbes.com/sites/bernardmarr/2022/01/19/how-luxury-brands-are-making-money-in-the-metaverse/ [https://perma.cc/MXD9-E49F] ("Analysts at Morgan Stanley say the market for virtual luxury goods could be as large as $50 billion by 2030.").

271. Yadira Gonzalez, *Brands That Have Filed Metaverse Trademarks—and What It All Means*, ADAGE (Apr. 11, 2022), https://adage.com/article/digital-marketing-ad-tech-news/brands-have-filed-metaverse-trademarks/2401886 (last visited Nov. 7, 2023).

272. *See, e.g.*, Complaint, Nike, Inc. v. StockX LLC, No. 22-cv-983 (S.D.N.Y. Feb. 3, 2022); Complaint, Miramax, LLC v. Tarantino, No. 2:21-cv-08979 (C.D. Cal. Nov. 16, 2021); James Ellis, *Non-Fungible Olive Gardens NFT Delisted on OpenSea!*, NFT EVENING (Sept. 21, 2022), https://nftevening.com/non-fungible-olive-gardens-nft-delisted-on-opensea/ [https://perma.cc/T2ND-PSPG] (discussing the attempts of Darden Restaurants, owner of the Olive Garden brand, to take down a collection of NFTs depicting real-world Olive Gardens that come with a set of tokens called "Breadsticks"). Hermès won one of the first lawsuits to address the intersection of trademarks and NFTs. *Hermès v. Rothschild: A Timeline of Developments in a Case Over Trademarks, NFTs*, THE FASHION LAW (Nov. 20, 2023), https://www.thefashionlaw.com/hermes-v-rothschild-a-timeline-of-developments-in-a-case-over-trademarks-nfts/ [https://perma.cc/8ZD6-Z965] ("[T]he case has proven to be a closely-watched matter due to its status as one of the first lawsuits to center on the intersection of trademarks and NFTs and its focus on key questions, including the extent to which 'real' world trademark rights extend to the virtual world.").

273. Complaint at 1, Nike, Inc. v. StockX LLC, No. 22-cv-983 (S.D.N.Y. Feb. 3, 2022).

274. Desai, *supra* note 250.

C. Trademarks Need a New Rationale

A trademark's source identifying function can be broken down into two interrelated functions. The most basic is the referential function. Trademarks "identify and distinguish"[275] a particular product from others. This function enables consumers to easily and efficiently spot the product they seek because the trademark sets it apart from other products. Although this function reduces the time consumers spend scanning for the desired product, the more time-consuming step is researching which product they desire to purchase. Enter the information transmission function. Trademarks enable consumers to take whatever they know about a product (from experience, recommendations, reviews, advertising) and ascribe that information to a product that bears the associated mark. The mark becomes a stand in for research about the quality and characteristics they seek in a product. It is the reduction of the cost of product research that makes trademarks worthy of legal protection.

Should the law protect trademarks to the same extent if they now perform only the referential function? Trademarks still serve as a referent for the product about which consumers can research and get information. But trademarks' information transmission function is waning as consumers now have more accurate and efficient means of conducting product research.

There is a further dissonance between how trademarks actually function and what function the law purports to protect. The information that trademarks purport to transmit has become unhinged from any particular goods. Rather than information about quality and characteristics, it has become free-floating information about associations that ride with the mark. The law then is protecting the communication of a merchant's message. This protection has not yet been justified.

Trademark law is replete with references to the consumer and doctrines that are seemingly built on consumers' experiences. The story we tell ourselves is that trademark law is about protecting consumers.[276] However, trademark law is not a form of consumer protection law and

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275. This phrase appears in the Lanham Act's definition of a trademark: "any word, name, symbol, or device or any combination thereof . . . used by a person . . . to identify and distinguish his or her goods . . . from those manufactured or sold by others." 15 U.S.C. § 1127.

276. MCCARTHY, *supra* note 22, § 2:1 ("The interest of the public in not being deceived has been called the basic policy [of trademark law]."); Bone, *Hunting Goodwill*, *supra* note 29, at 549 ("The core of trademark law . . . views trademarks as devices for communicating information to the market and sees the goal of trademark law as preventing others from using similar marks to deceive or confuse consumers."). *But see* McKenna, *Normative Foundations*, *supra* note 249, at 1916 ("Critics cannot continue simply to claim that modern law is illegitimate because it does not seek to protect consumers. Because it never really did.").

never has been.[277] As has been shown, consumers are not benefitted by trademarks as much as the law's rationale holds, and in some cases, they are likely harmed by the misinformation trademarks provide.

Before the informational function of trademarks became doctrinaire, trademark theorists frankly engaged with the policy justifications for trademarks. Just after the passage of the Lanham Act, Professor Ralph Brown warned against broad unexamined justifications of protection. Openly questioning whether trademarks and advertising serve the public interest, Brown concluded that they did only when they provided consumers useful information about products.[278] Informing, however, was different from persuading, which disserves the public and is not worthy of protection.[279] Brown's approach has salience today. When trademarks do not play an information transmission function, but instead function as persuasive advertising, the reason for protecting them disappears.

Should trademarks be protected when they fail to inform? Perhaps, but not without a rationale that matches the facts on the ground. Professor Felix Cohen, another early trademark theorist, argued that trademark law had abandoned its role of protecting consumers in favor of protecting property interests and had failed to offer a theory as to why protecting these interests is socially valuable.[280] The Chicago School's search costs theory might be seen as a response to Cohen's attack on the social utility of trademarks.[281] Cohen's critique, however, was larger. His insight was that legal concepts disconnected from empirical observations are "transcendental nonsense."[282] Search costs theory has long suffered from a disconnect with facts on the ground, but our increasingly algorithmic world has now made this apparent.

Trademark scholar Frank Schechter's contributions can be read as frustration that the account of trademarks as information was incomplete. Schechter's famous 1927 Harvard Law Review article argued for

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277. McKenna, *Normative Foundations*, *supra* note 249, at 1841 (arguing that trademark law was not originally intended to protect the consumer, but instead sought to protect producers from "illegitimate diversions of their trade by competitors").

278. Ralph S. Brown, Jr., *Advertising and the Public Interest: Legal Protection of Trade Symbols*, 57 YALE L.J. 1165, 1168, 1185, 1187 (1948) (arguing that protecting trademarks' "informational value" is legitimate).

279. *Id.* at 1168 ("[I]mparting information is the only useful function of advertising."); *id.* at 1183–84, 1190.

280. *See* Felix S. Cohen, *Transcendental Nonsense & the Functional Approach*, 35 COLUM. L. REV. 809, 814 (1935) ("There was once a theory that the law of trade marks and tradenames was an attempt to protect the consumer against the 'passing off' of inferior goods under misleading labels.").

281. Peaceable Planet, Inc. v. Ty, Inc., 362 F.3d 986, 990 (7th Cir. 2004) (noting that one general policy "rationale" of trademark law has come to be to "promote competition and consumer welfare").

282. Cohen, *supra* note 280, at 815 ("Courts and scholars, therefore, have taken refuge in a vicious circle to which no obviously extra-legal facts can gain admittance.").

expanded trademark rights to reflect an expanded understanding of how trademarks actually functioned in the marketplace.[283] Schechter maintained that trademarks are better understood as "creating a desire."[284] Schechter may have been more accurate than the prevailing account, but as Brown and Cohen later demonstrated, such a function was difficult to defend policy-wise.[285] In contrast, Schechter's contemporary, trademark attorney Edward S. Rogers, seems to have appreciated the plasticity of the source of origin confusion model.[286] As the main drafter of the Lanham Act, Rogers's view prevailed. Although search costs theory is an unequivocal rejection of Schechter's account, today, we have nevertheless come to protect trademark's selling power.

The remarkable staying power of the search costs account of trademarks, however, has provided judges cover to create, protect, and reinforce monopoly powers while giving lip service to consumer protection. Instead, courts should have to acknowledge the protection they are granting and in whose interest it is. Brand owners should consciously rethink the rationale of protecting brands as opposed to trademarks. That entails protecting brands qua brands, not brands as a proxy for other information. Courts should understand that protection aids only the brand owner, not the consumer, and not competition. Perhaps there is a balance where the law can appropriately reward the brand owner for their investment in branding, while safeguarding competition. Search costs theory, however, provides no room for such a balance.

Retail has changed more in the past two decades than it has over the entire course of trademark history and even bigger changes are just around the corner. We can think of this as the third major period of retail, the first being the era of the local dry goods store where consumers did not interact

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283. *See generally* Schechter, *supra* note 26.

284. *Id.* at 819. In a similar vein, in 1942, Justice Frankfurter somewhat infamously described trademark protection as "the law's recognition of the psychological function of symbols" and referred to trademarks as "a merchandising short-cut" meant "to impregnate the atmosphere of the market with the drawing power of a congenial symbol." Mishawaka Rubber & Woolen Mfg. Co. v. S.S. Kresge Co., 316 U.S. 203, 205 (1942).

285. *See* Brown, *supra* note 278, at 1166. Judge Jerome Frank also recognized that protecting trademarks in the name of protective consumers posed the danger of creating legal monopolies. Triangle Publ'ns, Inc. v. Rohrlich, 167 F.2d 969, 980 n.13 (2d Cir. 1948) (Frank, J., dissenting) ("The trade-name doctrine . . . enables one to acquire a vested interest in a demand 'spuriously' stimulated through 'the art of advertising' by 'the power of reiterated suggestion' which creates stubborn habits. . . . Should the courts actively lend their aid to the making of profits derived from the building of such habits, if and whenever those stubborn habits so dominate buyers that they pay more for a product than for an equally good competing product? . . . [I]ts basic virtue is generally regarded as consisting of its benefits to consumers.").

286. *See* Jessica Litman, *Edward S. Rogers, the Lanham Act, and the Common Law*, *in* ROBERT G. BONE & LIONEL BENTLEY, RESEARCH HANDBOOK ON THE HISTORY OF TRADEMARK LAW 1–43 (forthcoming 2023) (on file with author).

with trademarks at all, and the second being the marketplace that search costs theory described. The second period ushered in our modern trademark law. The change in the marketplace in the third period is as fundamentally different from the second period as the second was from the first. Such a major change in the marketplace should occasion a concomitant change in trademark theory.

Trademarks may still sometimes assist consumers in purchasing decisions, but they may just as likely lead to less optimal results, slow down search, distract, or even misinform. Today—and likely much more so tomorrow—consumers face a different shopping experience in which trademarks are displaced by more accurate and efficient tools. Consumers' reliance on trademarks for information about the source or quality of products will progressively fade.

Trademark theory needs to acknowledge that trademarks are doing less work and doing it less often. Instead of protecting trademarks qua information, the law is protecting brands. Brands are valuable properties because they function in the marketplace as the product itself. Presently, brands enjoy robust protection because of unexamined application of search costs theory and not because of a considered determination that they are deserving of legal protection.

Trademark law needs to recognize when search costs are and are not implicated and measure protection accordingly. In a number of concurring and dissenting opinions in the years immediately preceding and following the enactment of the Lanham Act, Second Circuit Court of Appeals Judge Frank directly challenged the informational value of trademarks to consumers stating that "the conventional assumption that trade-name protection importantly adds, in direct fashion, to consumers' economic welfare, has not as yet been proved to be true in fact."[287] Frank pointedly asked: if trademark law's "exceptions to the presumption in favor of competition are of no direct use to consumers, do they serve a sufficiently important social interest to justify their existence?"[288]

This Article contends that the support for the economic welfare or social utility claim is now at its weakest point in the history of trademark law. It is time to recalibrate trademark law's normative foundations.

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287. *Triangle Publ'ns, Inc.*, 167 F.2d at 980 n.13 (Frank, J., dissenting); *see also* Standard Brands v. Smidler, 151 F.2d 34, 37 (2d Cir. 1945) (Frank, J., concurring); LaTouraine Coffee Co., Inc. v. Lorraine Coffee Co., Inc., 157 F.2d 115, 124–25 (2d Cir. 1946) (Frank, J., dissenting).

288. *Triangle Publ'ns, Inc.*, 167 F.2d at 980 n.13.

CONCLUSION

The claim that trademarks transmit useful information and that consumers rely on this function to efficiently navigate the marketplace has been undermined by the age of algorithms. The normative rationale for protecting trademarks is rapidly slipping away. Trademarks may still function to distinguish products on occasion, but changes in technology indicate that these occasions are dwindling.

These technologies have completely transformed the very nature of how sellers sell. Search costs theory assumes the unavailability of alternative means to address the asymmetry of information between producers and consumers. Now, however, the marketplace utilizes an arsenal of digital technologies to enable consumers to efficiently connect with products that meet their desires. The need to rely on trademarks to convey information about products is therefore greatly diminished. These technological alternatives dramatically change the value of trademarks for consumers and so should change the cost benefit analysis of protecting them.

In the early days of retail in America, consumers would not browse the store shelves to find the products they wanted to buy. Instead, their local shopkeeper would fetch them products that corresponded to their stated needs. In this way, we have come full circle where consumers today again delegate purchasing decisions. As a result of unleashing AI on consumers' harvested personal data, firms know the needs *and* desires of consumers, maybe even before consumers do. In this scenario, as in the earliest local shops, search costs theory is inapt.

Even in the twentieth century marketplace to which search costs theory was addressed, it failed to acknowledge how trademarks often functioned to obfuscate rather than reveal source information. Increasingly, trademark law has served to protect property interests in the name of protecting consumers. Search costs theory shields the work trademark law is actually doing to protect brands as the products themselves. That trademarks now play an increasingly different role in society should prompt a reconsideration of whether trademark protection is justified in particular cases.