Artificial Intelligence (AI) and the Future of Brands: How will AI Impact Product Selection and the Role of Trademarks for Consumers?

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Introduction

Artificial intelligence (AI) is transforming the world around us. AI seeks to make consumer life easier by helping us to choose from an infinity of options, making it faster and easier to select a product through tailored recommendations: which movies to watch, investments to make, routes to drive, and products to buy – among many other things. As software does more complex thinking for us – while turning mundane and tedious tasks to simple voice commands – it may also change how consumers interact with brands. Trademarks serve as a symbol for a product's quality and characteristics, conveniently informing consumers and saving them from time-consuming research. However, the analytical power of AI does not necessarily need the informational shortcut that trademarks represent. This paper explores how AI may change the relationship between consumers and trademarks, and the challenges and opportunities AI represents for brand owners.

1. How might the use of artificial intelligence in product selection devalue the role of trademarks and the way consumers perceive brands?

As artificial intelligence becomes increasingly pervasive, companies are exploring ways to take advantage of the opportunities it affords to better understand and target relevant consumers. Many brand owners are also considering the implications AI may have in product selection, and whether the resulting impact could devalue the role of trademarks.

Smart home devices and smart appliances utilize artificial intelligence in order to streamline the purchasing process, thereby minimizing (or possibly even eliminating) consumer participation in the purchasing decision. For example, your smart refrigerator may someday detect you are running low on ketchup and have it delivered to your front door before you even consider a trip to

the grocery store.[1] Or your smart home device may respond to your request to "order more paper towels" by gathering data about your prior purchasing habits from your connected e-commerce platform and making a purchasing decision without any further input from you.[2] Even when consumers believe they are controlling the product selection process while shopping online, artificial intelligence algorithms are continually at work, employing predictive analytics to make personalized product suggestions.[3] In each of these scenarios, customers are participating less directly in the shopping experience and consequently interacting less with brands.

While big data analytics affords greater opportunities than ever before for targeting relevant consumers [4], AI may assume responsibility for setting brand or default purchase preferences, which in turn makes it increasingly difficult for companies to target customers at the critical point of sale. This may pose additional, unique challenges for start-up companies or brands attempting to gain market share by targeting the customers of direct competitors.[5] These customers may already be locked in to subscription or historical purchasing decisions, and these decisions encompass the data that AI will continue to analyze and rely on to inform future purchasing decisions.

There is also the risk that AI may eliminate brand preferences altogether, for example, by allowing customers to set default preferences entirely unrelated to brand. For instance, a customer may set a preference to always receive the "cheapest available option." This "brand washing" has implications for all trademark owners, as it results in a purchasing decision that has no direct tie to brand name and no opportunity for even historical brand preferences to pervade the AI algorithm. Relying on AI to employ brand-less purchasing preferences could have negative implications for both brand owners and consumers. Detaching products from corresponding trademarks and the level of quality those trademarks are intended to represent to customers may provide incentives for retailers to cut corners on quality in order to reduce prices and fulfill the "cheapest available option" preference some consumers may opt for.[6]

2. <u>How will the changes brought by AI and the way consumers perceive brands affect the way examiners and courts think about the "average consumer" in specific cases?</u>

Artificial Intelligence could also have implications for brand owners seeking to protect the trademarks they own, which identify a particular source and level of quality that they have invested significant time and resources to establish in the marketplace. For example, if a customer makes an oral command to a virtual assistant or smart home device to "order BRAND X product" and, despite having specified a brand, is presented with various low cost or compatible alternatives, what recourse does a brand owner have? Moreover, what obligation does an AI provider have to intervene and prevent this type of consumer misdirection?

Many industry experts suggest the responsibility of AI providers should be akin to that of Internet search engine providers or web hosting providers.[7] While these existing policies (e.g., contributory infringement) may be a reasonable place to start, there are also some novel issues presented by the adoption of AI that may require a closer examination of the resulting impact on

trademark law. Two notable considerations are the impact AI may have on how trademark examiners and courts think about "likelihood of confusion" and the "average consumer." [8]

Traditionally, trademark law has focused on the visual, conceptual, and phonetic similarity in assessing the similarity of two potentially conflicting trademarks. But with consumers participating less directly in the purchasing decision, are these visual and conceptual similarities as important to the analysis? With consumers more frequently providing verbal commands to devices and receiving oral feedback, should the phonetic similarities between two potentially conflicting trademarks be granted additional weight in the analysis? Is the similarity between two marks even as important to the infringement analysis when AI is responsible for making purchasing decisions, since AI is unlikely to be susceptible to marketplace confusion?

With AI taking the place of the "average consumer" in making product comparisons, perhaps these and other traditional concepts like "imperfect recollection" and a varying degree of care exercised by product price point no longer apply.[10] Instead, brand owners and trademark practitioners may need to reevaluate the strength of infringement theories that rely principally on initial interest and point of sale confusion and instead explore theories of infringement that place greater emphasis on the harm caused by post purchase confusion.

3. <u>How might the use of AI offer opportunities for strengthening brands?</u>

It is generally posited that the strength of consumer demand for a brand, relative to that of its competitors, correlates directly to the strength of the brand. As we have discussed already, Artificial Intelligence may create a challenging environment for brand owners by weakening consumer demand for branded products (and services). But, might it also have the opposite effect and make brands stronger, and, if so, how and in what circumstances?

One obvious possibility that is introduced earlier in this article is that AI may help to preserve the brand strength of market leaders. If AI sets brand or default purchase preferences, it may be difficult for brands to target the consumers of direct competitors at the point of sale. These consumers may be already locked into subscriptions and unable or unaware of how to make changes, or AI may be using their historical purchasing decisions to determine future ones (at the same time reducing the risk of mis-recollection or the mistaken purchase of lookalikes). Even if tempted by a newcomer, consumers may miss the chance to make a change because they do not know when their next purchase is due to take place, or they simply are not sufficiently motivated to make the effort to override the AI pre-sets.

AI may be a tool strong brands can use to stay strong, and maybe to get stronger. Does it necessarily follow, however, that AI works against weaker brands? The answer is no. AI can make all brands stronger, and the way that it can do this is through consumer/brand relationship building. But before we look at this, let us begin by noting that competing on price will not make a brand stronger. By definition, AI default purchase preferences set to "buy the cheapest" *disregard branding*. Competing on price may give a short-term increase in sales among consumers, but

the foothold in the market that it would create is likely to be among consumers who are not interested in the brand.

Fortunately for brand owners, however, the connection between brands and most consumers has never been closer than it is today. Online shopping and social media have brought brands into people's lives at home, at work, and at play, 24/7. AI has the capacity to not only create and build these relationships but to make them stronger than ever. In so doing, it will increase consumer demand, and hence (by definition) brand strength.

Firstly, it can help to connect a brand with the right audience. Traditional tactics for building brand strength include things like getting to know your audience, creating a brand message that hooks them, and repeating that brand message loudly, clearly and as often as possible, with an appealing brand voice. AI can help with all these things by providing insight and access to vastly increased volumes and categories of data regarding things like consumer preferences, habits, purchasing decisions and trends. It can help you understand who exactly your audience is, and what they want, and it can help you to dynamically aim your brand strategy at what is, in reality, a moving target, namely an audience of consumers which, by reason of changing social and economic considerations, is always evolving.

Secondly, it can improve the bond between those consumers and your brand by optimizing customer experience. Another traditional tactic for building brand strength is personalization. This already happens to an extent (and possibly more than most of us realize) in that advertisements we see on screen are determined by our previous online activity. But AI can give every customer and potential customer a personal shopping assistant, capable of answering frequently asked questions, and making recommendations of things they might like. This can be used to create content that each consumer finds personally engaging and, in this way, AI can create the kind of emotional connection strong brands need to have with consumers.

Finally, and slightly more esoterically, AI can increase brand strength by improving brand image. In the contemporary world, the most admired brands – and hence often the ones most in demand – are the ones that consumers perceive to come from the best companies, that is, companies with the best cultures and the best and most motivated employees. AI is being used by progressive companies around the globe to drive internal culture, and to help spot the best suited job applicants. This, in turn, can give the company's brand or brands a competitive advantage in terms of consumer demand, over those of its competitors. Again, by definition, this increases brand strength.

It is also worth considering the possibility that AI may encourage brand owners to be creative in seeking to increase brand strength in new and imaginative ways. For example, partnerships with adjacent industries are already a recognized means of building brand strength, but AI expands what is possible in this area. For example, if your brand of detergent is the brand recommended by a leading washing machine manufacturer, AI operating in your smart home will know what washing machine you have and will treat this brand of detergent as its (and your) first preference. Likewise, one can also envisage an AI equivalent of Google search result ranking, where brands

pay to increase the frequency with which they are purchased by your AI when you voice command it to “order more coffee” (etc.) without naming a particular brand.

All in all, when it comes to brand strength – as with so much in life – new technology like AI presents both opportunities and threats, and it is for brand owners to respond accordingly. They should be wary of the threats, but open to the opportunities.

4. <u>What can brand owners do to prepare for the shift anticipated by consumer adoption of AI in purchasing decisions?</u>

Artificial Intelligence is changing the way brands market. It has, and continues to, opened a host of possibilities that make shopping more convenient for the consumer. AI has provided voice detection technology that now permits purchases to be made while chatting with a digital assistant and has even provided the software to learn about a consumer’s preferences to suggest purchases to them. To capitalize on this new form of advertising it is important that brand owners understand what metric will place their brand as the preference/default for a given platform. For instance, often when an individual person decides to visit a certain website, that action will that then translate to that particular brand being featured in the advertising for that user’s social media feed. Therefore, to gain that market position, brand owners need to concentrate on ways to increase visits to their website. Traditional ways to drive traffic to a website have been eblasts offering discount codes and the like which provide an incentive for individuals to shop that particular website. However, brand owners are becoming increasingly more creative. For example, instead of sending an eblast with the particular offerings in the email, brand owners are now using the emails as “teasers” where an individual must click the link in order to reveal what the deal offering is.

Artificial Intelligence is also able to gather data that predicts a consumer’s behavior, such as when a consumer is most likely to open an email. This data can then be used to send promotional emails to an individual consumer at a time when they are more likely to open the email than at a time when they are at work or otherwise ignore emails. Another way brand owners are utilizing AI is by creating an individualized experience. Taking the example of the eblast received, AI has provided the data necessary for a brand owner to send the eblast at a time the consumer is most likely to open it but also can provide the information necessary to customize the layout of the eblast that is more desirable to that particular consumer and encourage the consumer to click into the website.

Because AI has become so influential in purchasing decisions it is important for brand owners to keep up with the trends and focus on what consumers value. For instance, consumers are placing high value on technology that offers convenience such as voice recognition technology. With voice recognition technology consumers are able to search for items and make purchases while multi-tasking. Additionally, voice technology software has allowed consumers to shop without browsing various different websites. Rather they can search and purchase through a single interface.

As more and more people do their shopping online data related to an individual's personal shopping preferences becomes more readily available. Data can be collected on things such as what products an individual purchases, how often, and from what marketplace. These metrics can be invaluable to online marketplaces that can now take that data and customized the homepage for that individual to showcase items he or she are known to like. But how does this play into the growing concern over privacy issues? Consumers, for the large part, do not want data collected on their purchasing habits, internet browsing habits, or other metrics that may be used to enable artificial intelligence to increase exposure for particular brands. Brand owners are able to gain trust through transparency and adding a large amount of value (convenience) in return for the personal metrics collected.

5. <u>How might AI assist Brand Owners with Enforcement of their Marks?</u>

AI can assist brand owners and practitioners in enforcement of their (and their client's brands) in the marketplace. While the searching of word marks is very straight forward and has been effectively undertaken for years, the searching of similar logos or marks incorporating figurative elements has been limited and costly. However, artificial intelligence is being implemented to tackle these challenges and can be implemented to achieve more targeted results and provide a powerful enforcement tool for all brand owners.

The World Intellectual Property Organization (WIPO) announced in April 2019, that the organization recently launched improved AI-based technology that uses deep machine learning to identify a combination of concepts in an image to assist in searching for similar registered marks. [11] The AI assisted searches have resulted in more narrow and targeted search results that have translated into labor-cost savings for examiners and others that use the AI assisted search feature available to all practitioners without charge through WIPO's Global Brand Database. The search functionality covers 45 trademark offices and is effective even if the office does not use a classification system for figurative elements. The AI assisted search system also allows the algorithm to combine other search criteria, such as jurisdiction and classifications for good and/or services.

In addition to the AI-based system available through WIPO, AI assisted searching is advancing through other means and resources. As an example, in June 2019 [12], an AI assisted system, named "TradeMarker", was described as an attempt to provide advancements over other AI related searching platforms, and was discussed in a July 2, 2019 World Trademark Review article. [13] The TradeMarker platform aims to advance AI assisted searches of an image by separately providing search results based upon 4 areas: content similarity; image/pixel similarity; text similarity; and manually inputted similarity criteria. The system also requires human interaction to rank the results from each search area, but due to the assistance of AI, reports immediate search success rate of almost 80% and time and resource savings by a factor of five. The innovations and increasing availability of AI assisted search platforms will have a significant and far reaching impact on trademark enforcement. AI assisted searching will allow for improved searching that is more affordable and thus more attainable to brand owners of all sizes. Many of

the existing AI assisted systems, however, search only the trademark databases and registrars from participating jurisdictions or jurisdictions that have online access to their databases. As such, current limitations may exclude searching common law and unregistered references and images on the Internet that are not the subject of a pending application or existing registration in participating jurisdictions.

6. Views from the Marketplace

INTA's Brands and Innovation Committee previously issued a report exploring how artificial intelligence (AI) might impact the value and protectability of brands from the perspective of brand owners. The EIC Artificial Intelligence and Decisions by Machines Subcommittee sought to supplement the report by investigating similar issues from the perspective of online marketplaces and infringement monitoring services. With that goal in mind, the Subcommittee sought to collect information from relevant companies that might have insight on AI and its potential influence on trademark use (and misuse) in ecommerce.

Specifically, Subcommittee members created a questionnaire seeking the following information:

- Whether respondent has adopted AI software for use with its marketplace or ad/marketing services directed to sellers;
- Whether respondent has adopted AI to assist with processes like reviewing product listings to prevent infringement, processing inbound trademark and copyright takedown complaints, or identifying and removing counterfeit products and infringing listings;
- Whether respondent has developed in-house AI technology or utilizes third party services;
- How respondent thinks implementing AI will affect the company's marketplace;
- Whether the information generated by AI is also reviewed by a human;
- How implementing AI will affect the product listing and complaint intake/listing removal processes; and
- Whether respondent has any suggested uses for new technology in the space of AI and trademarks.

The Subcommittee provided the survey to leading online marketplace, technology, and brand monitoring and clearance companies. After significant outreach efforts, two companies agreed to furnish us information and one asked that we keep its responses anonymous. Most companies that declined to participate did so due to concerns about sharing sensitive or competitive information. The responding companies shared the following insights:

- The companies both use supervised and unsupervised machine learning, natural language processing, image recognition, and general AI heuristics.
- One company uses AI for reviewing infringing product listings, processing inbound trademark and copyright takedown complaints, and identifying and removing counterfeit

products and infringing listings. It also uses a combination of technologies developed in-house and those licensed from third parties.

- The other company uses AI image recognition for conducting clearance on design marks and AI natural language processing to compare goods and services outside of the international class system.

- Both use human supervision. This is because AI is good at narrow tasks but not broad or overly complex ones. For example, one company uses humans to review allegedly infringing product listings for false positives. It does so due to the nuances of the analysis and to avoid legal repercussions associated with false reports.

- One company believes that until the major marketplaces all implement AI to effectively self-police for infringing listings, there will be opportunities for AI-powered infringement monitoring services.
- Both companies believe AI will become fundamental to trademark prosecution and enforcement in the future.

While the observations reflect the views of just two companies, broader conclusions can be drawn. First, it is likely that those companies declining to participate for confidentiality reasons are investing heavily in AI. Moreover, given the society's reduced tolerance for inappropriate and infringing content online, it is likely that these investments in AI will be used to infringing online marketplace listings. AI is an increasingly important tool used by brand monitoring companies to reduce infringing content and it is likely that online marketplaces will soon implement their own.

Conclusion

AI represents a challenge and an opportunity for brand owners. As consumers increasingly rely on AI to support or even exclusively handle purchasing decisions – a trend that will only increase, given the undeniable convenience that automatic purchases and one-command purchases entail in our modern world –the relationship between consumers and trademarks risks weakening. Brand owners will need to adapt by using the power of AI to learn more than ever about consumer behavior to forge more loyal relationships, and therefore projecting their resources in order to prioritize the presence and relevance of their trademarks as competitive options of the purchasing process. As examined, brand owners could even find better customers with AI-powered targeted marketing, in order to be the top option for their ideal customer, and rely on AI to approach these individuals efficiently. It is important for brand owners to realize that AI could very well help them finding their best possible clients, just as their products might be the right options for such clients, and not just the cheapest available. AI should not represent a threat to brands and companies, but rather a tool to reach the best pool of potential buyers – individually selected for this purpose – for every single product they may offer. In the end, it is up to these companies and entrepreneurs to adapt their brands and marketing strategies to this powerful technology.

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[1] *See, e.g.,* https://www.retaildive.com/news/lg-introduces-smart-refrigerator-with-amazon-alexa-enabled-grocery-ordering/433366/; https://www.samsung.com/us/explore/family-hub-

refrigerator/overview/; and https://markets.businessinsider.com/news/stocks/artificial-intelligence-could-make-brands-obsolete-2017-9-1002515382.

[2] *Id*.

[3] *See* https://hbr.org/2016/11/how-predictive-ai-will-change-shopping.

[4] *See* http://eprints.lse.ac.uk/57944/.

[5] *See* https://www.managingip.com/pdfs/01-TrademarkTimes18Seattle.pdf.

[6] Conversely, however, this could offer an opportunity to encourage higher quality if customers opt in to purchase preferences such as "highest rated product."

[7] *See* https://www.lexology.com/library/detail.aspx?g=081aa32a-f9bc-4a89-8bce-6e5ea80c80ef; http://www.hgf.com/media/1173564/09-13-AI.PDF.

[8] The "average consumer" is a concept in both European and US trademark law used to assess whether two trademarks are confusingly similar. "The consumer who is to be protected from confusion by trademark law is not necessarily the sophisticated buyer who makes careful distinctions, but a hypothetical 'average consumer.'" *See* 1 Thomas McCarthy, *McCarthy on Trademarks and Unfair Competition* § 2:22 (5th Ed. 2017).[9] See http://www.hgf.com/media/1173564/09-13-AI.PDF.

[10] *See* https://www.wipo.int/pressroom/en/articles/2019/article_0005.html.

[11] *See* https://www.researchgate.net/publication/333652029_TradeMarker_-_Artificial_Intelligence_based_Trademarks_Similarity_Search_Engine.

[12] *See* https://www.worldtrademarkreview.com/ip-offices/how-ai-will-revolutionise-trademark-searches.