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THE INTERSECTION OF TRADEMARK LAW AND ARTIFICIAL INTELLIGENCE

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ABSTRACT

The magnification of artificial intelligence has somewhat impacted the whole world, the principality of online retailing is all what we see now days, be online marketing, advertisement or even the product manufacturing are seen done by the biggest tech giant companies all over the world like Microsoft, Amazon, Flipkart, Goggle, IBM etc. not barring itself to marketing AI has launched several exhilarating applications that provides assistance such as Amazon dash, Alexa, Google home, consumer chatbots etc. As the hype of artificial intelligence is at the top day by day the trademark law is being questioned. Unlike trademarks laws there are no stakes for confusion at all. These all have brought significant changes in various fields and one of the most impacted fields is law, including the trademark law. AI's ability to create, analyse, and manipulate data has some direct implication over the trademark registration, enforcement and ownership that can forge some complications about privacy concerns, legal liability and ethical consideration. AI is prepared as a human brain so all the mistakes that were created previously by the trademark laws can be nullified by the artificial intelligence. From the process of purchasing to the process of marketing all can be done through the help of artificial intelligence. This paper will examine the intersection of trademark law and AI, the challenges and the opportunities and its future implications.

INTRODUCTION

Trademark are vital assets for businesses, allowing them to create brand recognition, customer loyalty, and goodwill. Trademark law provides legal protection to these marks and enables businesses to protect their interest. The rise of Artificial Intelligence has created a new challenge for Trademark Law. AI is capable of generating new trademark ideas, identifying potential trademark infringers and detecting Trademark misuse. The use of AI in trademark laws has generated various opportunities, including the ability to automate trademark searches.

Tech giant companies such as Amazon divulged ¹that it is elemental for them to incorporate machine learning and other facets of AI to expand its market growth. Furthermore '*Project Zero*' was announced by Amazon that will employ AI to detect and classify various counterfeited products² Now AI has become the backbone of the giant companies forming the substratum of the market. And within a few years it is set to change the lifestyle of mankind in all aspects be it social, economic or legal, furthermore humans are being replaced by the performance, their brain power, algorithms given by the AI. Though for the time being the impact hadn't been the worst for us, in many fields, AI will bring an unmanageable and insurgence change over the time and one of the most hit fields will be the Trademark laws. Some of us fear that AI will capture the market that will lead to the drastic decline in the labour jobs or some positions but on the other hand some people want to explore the technology and are very much excited with the emergence of artificial intelligence.

KEYWORDS

Trademark laws, Artificial Intelligence, Human Ability, Average Internet Consumer.

RESEARCH ISSUE

Whether there is a nexus between Trademark law and AI. Whether the AI has affected trademark laws in its legality.

RESEARCH OBJECTIVE

The objective of this research paper on trademark and AI is to explore the impact of AI on trademark laws, including its potential to automate and registration processes, as well as its ability to detect and prevent trademark infringement. The study aims to analyse the legal issues and controversies that arise from the use of AI in trademark law, such as the role of humans in decision-making and the potential bias in AI algorithms. AI has evolved a lot over the years and is the 4th revolution in terms of technology. It has put a lot of rules and regulations including the trademark. Trademarks are enforced for almost 24 years and need few changes.

¹ Amazon, Machine Learning, AWS (April 10, 2023) <https://aws.amazon.com/machine-learning/what-is-ai/>

² Shubham Borkar & Nitish Daniel, India: A Comprehensive Review of Amazon Project Zero, Analysis in Detail of the Policy Issues, Takedown Mechanism and its Applicability in India, MONDAQ (April 10, 2023) <https://www.mondaq.com/india/trademark/788860/a-comprehensive-review-of-amazon-project-zero-anticounterfeiting-initiative-analysis-in-detail-of-the-policy-issues-takedown-mechanism-and-its-applicability-in-india>.

Additionally, the paper aims to evaluate the regulatory frameworks and policies needed to ensure the proper use and accountability of AI in trademark law. Ultimately, this research seeks to provide insights on how AI can enhance the efficiency, accuracy, and effectiveness of trademark law while also addressing the ethical and legal challenges that arise from its implementation.

RESEARCH METHODOLOGY

This research paper has been written using various source, mainly secondary sources which includes various research articles, books, recent surveys, case studies, etc. this research methodology involves collecting numerical data to answer the question it also contains non-numerical data such as opinions, perceptions, and attitude to gain understanding on the topic.

EMERGENCE OF ARTIFICIAL INTELLIGENCE (AI)

Artificial Intelligence (AI) refers to the field of computer science and engineering concerned with designing and developing machines that can perform tasks that usually require human-like intelligence. According to the Oxford Dictionary “The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages³”The concept of AI was brought by McCarthy in 1956, and since then the definition has been evolving from time to time. The main moto on which in the conceptualized this term was Thinking machines or the copy of human brain, he opined that a machine can do the exact thing which we humans do.

TRANSFORMATION PHASE OF TRADEMARK

As and when the time is changing the insurgency in market can be seen, the way of producing, buying, marketing, has all changed over the time period as a result it leaves us to only choice that is the hand-to-hand development in the Trademark laws. Every small change in the way of shopping can be seen as a hefty change. But where did it start from? The answer remains unchanged as we all know the market is a very potent place, the goods are inflows and outflows vigorously. The way of purchasing goods and services have constantly changed over the years. This chain started from the Victorian age where the shop assistant had to ask the byer about the products one by one, their range or quality etc. As the time and the development both stepped

³ OXFORD, OXFORD ENGLISH DICTIONARY (Oxford University Press, 3rd ed., 2010)

forward a totally new concept came to the light in the grocery stores of the U.S in the early 1990's mainly known as '**Piggly Wiggly**'. The market regime changed, this revolution focused on the branding concept, the concept that focused on self-serve the products were showcased in a wide display. It made sure that the consumers weren't influenced by the choices given to them by the sales assistant. But at the same time, it also gave rise to confusion amongst the buyers related to the selection of the brand. So, this again led to the revolution of the market. The producers started adding up their own specific unique names, tags, logos, etc. then in early 2000's the advent of social media started to capture the market, famous celebrities started to promote, sponsor the product which created a huge impact on the customer choices. It is not stopping here now some of the tech companies have also invented online stores where we can drag the things into the basket itself and there will be a counter option above and the billing will be done by the phone itself. so, it is clear that the way of marketing has been evolving ever since.

CHALLENGES

Since the beginning trademark laws have always endeavoured the problems be it any confusion or protection of original marks. But now there is a replacement of human choices by technological inventions. There is no emotional connection with the brand like it used to be earlier. '**Human Ability**', **infirmary**, **likelihood** and **confusion** of the customer are the foundation on which the whole trademark law is based. This ultimately gave rise to a new concept that is **Average internet consumption**, and if the artificial consumer replaced an average consumer the trademark laws are the once most likely to be affected. A significant case law which shows clear infringement of trademark laws by artificial intelligence is *Amazon v Lush* ⁴In this case 'Amazon' snapped up the word 'Lush' in a bidding process. As a result, it created a huge site of confusion on Google whenever the word Lush was searched, instead of showing the original products it showed some different products. By noting all the facts, the court held that it was clear infringement of the trademark laws by the AI institution. But there are some cases which have contrary judgements from the previous cases like *L'Oreal v eBay* ⁵This case revolved around selling false products online but the court did not hold eBay guilty for the same. There was a similar case to this in which the court protected the AI institution for

⁴ *Cosmetic Warriors and Lush v Amazon.co.uk and Amazon EU*, EWHC 181 (Ch), [2014]

⁵ Aishwarya Sandeep, *Artificial Intelligence and Trademark*, Aishwarya Sandeep, Parenting and Law (April 10, 2023, 12:00 AM) <https://aishwaryasandeep.com/2022/01/22/artificial-intelligence-and-trademark/>.

the infringement of trademark laws. This case is *Coty v Amazon*.⁶ Apart from this there are many challenges and one of the most **significant challenges are -: Legal Liability** AI-generated trademarks raise concerns about who holds the legal responsibility for trademark infringement. Since AI can generate new trademark ideas, there may be instances where an AI-generated trademark infringes upon a pre-existing trademark. Identifying responsibility in such cases becomes challenging, further complicating legal liability.

- Another challenge in using AI in trademark law is **privacy concerns**. The use of AI to search for trademarks raises issues concerning the privacy of individuals and companies. The data gathered during the search process must be adequately protected to avoid unauthorized access and misuse. Additionally, NLP (natural language processing) can potentially infringe upon individual rights since it is capable of analysing social media, emails, and other digital communications, thus raising privacy concerns.

As a customer we don't even know when we will be shifted to an artificial customer, for example a few years earlier no one even thought of buying products online but now the replacement is here. Some of the big companies that are ruling through the concept of AI are Amazon, Google, Microsoft, IBM etc. The upcoming generations do not prefer buying products manually they are preferring to buy stuff online. Not long-ago Amazon has instigated a Dash Replenishment Service (DRS) system.⁷ in this application whenever there is a low supply of products it automatically lets the customer select the products and the rest including the billing is done itself. Though AI is steadily capturing the market, it has not yet become the consumer of products. Thus, the trademark laws should be accommodated according to the upcoming situations created by the AI. They should be in accordance with the artificial intelligence system.

CRITICAL ANALYSIS

The use of AI in Trademark law will continue to shape the future of the legal landscape. The emergence of AI generated trademarks raises questions about the future of trademark ownership and legal liability. It remains unclear whether AI-generated trademarks can have legal ownership, and if so, who holds the responsibility for the trademark infringement.

⁶ *Coty v. Amazon*, C-567/18.

⁷ "Amazon Dash Replenishment" AMAZON DEVELOPERS, (April 2023), <https://developer.amazon.com/en-US/alexa/dash-services. >

Additionally, AI's ability to analyse vast amounts of data poses potential risk to privacy and requires developing appropriate measures to mitigate the risks to privacy and requires developing appropriate measures to mitigate the risks. The development of artificial intelligence (AI) is transforming the way businesses operate. From automating customer service to improving manufacturing processes, AI is rapidly changing the way we do business. However, the integration of AI into various areas of business has presented a new set of challenges for lawmakers and regulators. One area that requires significant attention is the interlink between trademark laws and AI. One of the primary ways that AI is transforming trademark law is through the use of machine learning algorithms to automatically generate logos, slogans, and other brand elements. This presents a challenge for trademark laws because it is not always clear who owns the rights to these AI-generated trademarks. Additionally, AI is increasingly being used to analyse large volumes of data in order to identify the potential of trademark infringement. Furthermore, the use of AI in e-commerce platforms and online marketplaces has created a new challenge for trademark laws. With the emergence of automated product recommendation and personalized advertising based on consumer data, there is a risk of trademark infringement by the third-party sellers who may use similar or identical branding to legitimate trademarks owners.

In response to these challenges, trademark law is evolving to adapt to the use of AI. Some potential solutions include:

- Clear legal guidelines: there needs to be clear legal guidelines and regulations to govern the use of AI in trademark law. This includes rules for the creation of deep fakes and manipulated images, as well as the use of AI in e-commerce platforms and online marketplaces.
- Improved AI technologies: AI technology must be continually improved to detect and prevent trademark infringement. This includes the development of better algorithms and tools to identify potential infringing content and the ability to differentiate between intentional and unintentional infringement.
- Collaboration between AI and legal professionals: there needs to be a closer collaboration between AI developers and legal professionals to ensure that AI technology is designed in a way that is compatible with trademark law. Legal professionals can provide expertise on the relevant laws and regulations, while AI developers can offer insights into the technical capabilities and limitations of technology.

- Increase transparency: AI platforms and e-commerce sites should be transparent about how they use AI in relation to trademarks. This could include disclosing how AI algorithms are trained and tested as well as how they identify and report potential trademark infringement.

Overall, the use of AI in trademark law can bring both benefits and challenges. While AI can greatly assist in identifying and detecting potential trademark infringement, it also has limitations and may not be able to fully replace human judgement. Therefore, it is important to have a balanced approach that takes into account both the strengths and limitations of AI. The trademark law should be prepared with all the concepts that will occur like Average consumer, the state of confusion, infringement of rights etc. For example, let's use the term "average consumer". The research paper on trademark laws and AI presents an interesting analysis of the impact of artificial intelligence (AI) on trademark laws. The author argues that the increasing use of AI in trademark registration and management poses several challenges for the legal system, and that the law needs to be updated to reflect these new technological developments. One of the strengths of the paper is that it provides a comprehensive overview of the current state of AI in trademark registration and management. The author identifies several areas where AI is being used, such as in trademark searches, classification, and monitoring. The paper also highlights the benefits of AI, such as increased efficiency, accuracy, and cost-effectiveness. Some useful insights into the impact of AI on trademark law, it falls short in several important areas. To fully understand the legal implications of AI in trademark law, further research is needed to examine issues such as the definition of a trademark and the criteria for infringement in an AI-driven world. Future studies should also explore potential solutions to the challenges posed by AI, such as the development of new legal frameworks and the adoption of ethical standards for AI decision-making. Ultimately, it will be important to strike a balance between promoting innovation and ensuring that trademark law continues to serve its fundamental purpose of protecting consumers and businesses from confusion and deception in the marketplace. There are very few cases registered in the court concerning artificial intelligence and the trademark laws. In fact, in the European Union, it has been thoroughly discussed the development of trademark laws in accordance with artificial intelligence. Let's take an example of Google France case⁸, where the key issue was the advertisement, the final dictum was given in which Google was not found guilty. As AI

⁸ Harsh Pati Tripathi, "Impact of Artificial Intelligence (AI) on Trademark Law" CIPRRA NLSIU Bangalore, 2023, <https://iprlawindia.org/wp-content/uploads/2021/04/Harsh-Pati-Tripathi.pdf. sp;>

becomes more prevalent in the trademark laws it will be essential to address ethical considerations concerning the use of these technologies. To sum up, the trademark laws should capture the activity of the artificial intelligence in the market and make prevalent laws accordingly. It will help sustain both in the long term.

OPPORTUNITIES

Despite the challenges AI presents **numerous opportunities** in trademark law.

- One of the significant opportunities is the ability to **automate trademark searches**. The trademark search automation, powered by AI allows for faster and more comprehensive identification of prior art enabling more accurate trademark registrations.
- Another opportunity is the enhancement of **trademark registration accuracy**. AI can identify inconsistencies, errors, and common mistakes that occur during a trademark registration process. Additionally, AI's ability to analyse large amounts of data enables the identification of potential infringement and misuse of trademarks.
- **Trademark portfolio management**: AI- powered software can help companies manage and maintain their trademark portfolio more efficiently. This includes monitoring renewal deadlines, tracking international, and identifying potential areas of overlap or conflict.
- **Brand protection**: AI can be used to detect unauthorized use of trademark images or content online, and to send automated cease-and desist notices. This can help protect the brand value and reputation.

Overall, the use of AI has the potential to save time and resources, increase efficiency, and improve accuracy in decision making.

SUGGESTIONS

As mentioned earlier, I would not suggest to change the trademark laws just because every nation is doing or wants to do so, but rather I would suggest that understanding the rhythm of artificial intelligence and then pacing up our laws with them would result in a better framework. Furthermore, I do not want that we create a hindrance in development. Every country needs a phase of development for their growth and development. If we formulate laws according to the AI system it will not lead to a chaotic situation. Using AI in trademark law is to develop predictive algorithms that can identify potential trademarks conflict before they arise by

analysing vast amounts of data, such as new trademark applications and existing trademarks, AI can predict which trademarks are most likely to cause an issue in the future.

This can help companies and legal teams proactively address potential conflicts, avoiding costly legal battles and protecting their brand reputation.

RECOMMENDATION

- The rise of technology is leading to new challenges and opportunities in trademark law. As AI becomes more prevalent in industries such as marketing and advertising, companies must navigate how to protect their trademarks in digital space.
- AI has the potential to provide more efficient and accurate trademark searches and enforcement, but there are also concerns about the reliability of AI systems and potential for bias.
- Collaboration between trademark attorneys and AI experts can lead to new solutions and strategies for protecting trademarks in the digital age. Lawyers can provide legal expertise and knowledge of current legal framework, while AI experts can bring technical expertise and insights on the latest AI technologies.
- As AI technology evolves and becomes increasingly complex, legal frameworks and regulations related to trademark and intellectual property may need to adapt. Lawyers and policy makers must monitor to address new legal challenges that arise.

Overall, understanding the intersection of trademark law and AI is important for legal professionals to effectively represent their clients and navigate the evolving landscape of the digital economy. As AI technology becomes more prevalent in all aspects of life, including marketing and branding, trademark attorneys must remain vigilant and adapt to the new challenges and opportunities that arise. By staying informed and up-to-date on the latest developments in AI and trademark law, lawyers can provide their clients with effective legal advice and protect their trademark in the digital age.

CONCLUSION

The intersection of AI and trademark law offers both opportunities and challenges. The use of AI presents opportunities for automations, improved accuracy and speed in trademark registration. However, legal liability, privacy concerns and ethical considerations implicate the responsible use of AI in trademark law. Consequently, the regulatory authorities must provide

appropriate legal frameworks and guidelines to ensure ethical and responsible AI usage in trademark law. As businesses increasingly adopt AI systems, policymakers and legal professionals must stay informed to address new challenges and opportunities in trade mark laws. Thus, to be put in a simpler way the legal structures of ours must explore and revamp as and when needed. So that there are no loopholes that cannot undergo the trademark claims. I would not suggest changing the trademark laws as per now especially for the Indian structure, but the ideals can be kept in mind as to how to adapt if the necessity is there. We should not hinder the technological advancement taking place. The UK court's decision⁹ in the Amazon v lush case was a right-minded decision and now it's high time that India should also take into account such important measures.



⁹ Supra note 16