Proceeding of ICGPSH 2025 Symposium: The Globalization of Connection: Language, Supply Chain, Tariff, and Trade Wars
DOI: 10.54254/2753-7048/2025.LD25031

Trademark Infringement Protection and Market Freedom on Network: An Exploration of Legal Boundaries

Yuxuan Xiao

College of Foreign Languages, Nanjing University of Aeronautics and Astronautics, Nanjing, China
13151527535@163.com

Abstract. As the quick development and widespread electronic commerce, network has become a primary venue for commercial activities. While network's openness and convenience greatly facilitate information flow and business communication, they also bring new legal challenges, especially about trademark infringement. Trademarks, as core identifiers of corporations and brands, symbolize the source of goods and services and reflect a company's reputation and competitiveness. At the same time, users' liberty for expression and commercial activities, along with free market competition, are legitimate rights that requires protection. However, the number of trademark infringement dispute cases has sharply increased, and mesures to reduce such damage like nudge theory can also impede market competition and innovation. Therefore, this study explores the balance and boundary between trademark infringement and the market freedom market. It also aims to analyze the new forms of trademark infringement, legal definition standards and responsibility allocation in the network environment and to further promote the healthy development of electronic commerce. Preliminary findings suggest that achieving a balanced legal framework requires clear definitions of online trademark infringement, proportionate liability standards that consider both trademark protection and market freedom, and innovative regulatory approaches that minimize undue restrictions on e-commerce innovation while effectively deterring malicious infringements.

Keywords: Trademark, Infringement, Market freedom, Network environment

1. Introduction

The real economy has benefited from new opportunities brought about by the Internet, but it has also seen an increase in the complexity of trademark infringement. The network has emerged as the most significant and widely used medium for growing commercial enterprises and conducting operations in the contemporary digital era, and the network market is expanding daily. Various goods and services are breaking through the limitations of traditional regions and time, and can be spread more widely. However, along with this is the increasingly prominent issue of trademark infringement in the network environment, which poses many challenges to trademark owners andmarket order.

Network trademark infringement refers to the act of the infringer using an identical or similar network trademark without the permission of the owner, and causing damage to the trademark owner's exclusive right to use the trademark [1]. It is commonly acknowledged that trademarks

© 2026 The Authors. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).

DOI: 10.54254/2753-7048/2025.LD25031

should be strictly protected because they serve as a means of identifying the source of goods and services, play a significant role in the complex business competition, and carry the reputation of brands, quality assurance, and unique market recognition. However, the excessive emphasis on trademark protection may unnecessarily restrain market freedom, suppress innovation vitality, limit the opportunities for market players to participate in fair competition, and also affect consumers' diverse choices and the prosperous development of the entire market.

In view of this, it is particularly important and urgent to deeply explore the legal boundaries between trademark infringement protection and market freedom on network. This paper aims to explore the legal boundaries between trademark infringement protection and market freedom in the network environment by analyzing relevant theories, cases and international experience, hoping to provide useful references for balancing the relationship between trademark infringement protection and market freedom in the network environment.

2. New changes of trademark in the network environment

2.1. New forms and features of trademark infringement

In the network environment, trademark infringement has manifested in diverse new forms, accompanied by distinct features, which pose severe challenges to trademark protection. Regarding the new forms generated recently, cybersquatting the most common infringement problem [2] in which individuals with malicious intentions may register domain names that are identical or highly similar to well-known trademarks. Take the famous brand "DUREX" for example, it might find that another company has registered a domain name like "durex.cn" with the intention of diverting traffic from the official website and misleading consumers into believing it is an authorized site [3]. Moreover, in the aspect of search engines, some merchants engage in keyword infringement by setting other people's trademarks as keywords without permission. When consumers search for a particular brand, a false link to fake product with such keywords may show up, confusing consumers. Meta tag infringement also occurs when some network operators insert trademarks into meta tags to enhance their search rankings and deceive visitors. Besides, social media infringement and e-commerce platform infringement are not spared either, with fake accounts using trademarks or influencers misusing them in their posts and fake lists of products with other people's trademarks.

The features of trademark infringement in the network environment are equally notable. Compared with traditional trademark infringement, the most obvious feature of trademark infringement in the network is its invisibility due to changes in the environment. These infringing acts in the digital space are not easily observable by ordinary consumers, making it difficult for trademark owners to detect and for regulatory authorities to enforce the law effectively. In addition, with the network's wide geographic reach, infringement can spread across regions and countries easily, making the determination of jurisdiction and the enforcement process more complicated. Furthermore, the high speed of information dissemination in the network means that once infringement happens, it can quickly spread across various platforms. Additionally, the variety of trademark usage on the network and the hazy distinction between lawful and illegal activity contribute to the difficulty of detecting infringement. And as an important component of the intellectual property system, trademark rights also fully reflect the regional characteristics of intellectual property rights in the trademark rights system [4]. Overall, these new forms and new features deeply influence the commercial environment of trademarks in the network, and it is important to make more refined protection measures.

DOI: 10.54254/2753-7048/2025.LD25031

2.2. New demand for market freedom in the network environment

In traditional markets, the operators often pursue the freedom to operate a business, set prices and have the ability to freely enter or exit the market. However, with the rapid development of the network, a whole set of demands for market freedom has emerged.

In terms of information flow, the participants expect real-time and accurate dissemination of information, but there are several obstacles to fulfilling this expectation in the network. The vast amount of information often leads to information overload, which causes the difficulty of identifying the valuable and reliable information. Simultaneously, the network is rife with disinformation that deceives consumers and business owners, leading them to make poor choices. Operators' flexibility to gather information is hampered by the fragmented information and difficulty in obtaining a macro-view of the market.

There is also a growing demand for innovation freedom. In the digital age, the speed and quality of innovation often determine whether the company can stand out in fierce market competition; however, once innovative achievements are easily copied, it not only undermines the enthusiasm of innovators but also hinders the healthy development of the entire market innovation ecosystem. The network provides a fertile ground for creative ideas but also calls for stronger protection of intellectual property. Entrepreneurs need to freely explore novel business models and technologies without the fear of imitation, and a legal environment that encourages innovation and creations is urgent.

The network is a useful platform for companies to advertise their goods and services, which gives rise to a strong need for freedom of expression. They require the freedom to introduce their new products, explain their brand concepts, and communicate with customers. Through various online channels like official websites, they could build brand awareness and attract more consumers. However, the law and platforms' principles may restrict such acts to protect trademarks from malicious attacks and might sometimes overly restrict legitimate promotion, limiting the extent to which businesses can communicate with their target consumers.

In conclusion, there are many new difficulties in the network environment for trademark protection due to the new forms of infringement, while the permitted freedom in the market is still significant, and its demand is also increasing. It is thus crucial to find a proper balance between market freedom and trademark protection. Only through reasonable regulation and law can both thrive and promote a healthy network economic order.

3. The Balance between trademark infringement protection and market freedom in the network

3.1. The role of trademark protection in market order

Trademark protection always plays a vital role in maintaining market order, especially in the network environment. According to the relevant provisions of the Lanham Act in the United States, trademark is protected in all aspects both online and offline, covering trademark registration, use, and prevention of infringement by others. With the fast development of technology, network trademark infringement has also extended to the field of Large Language Model. In January 2025, the Hubei Court announced the first LLM trademark infringement case in China. The Large Language Model (LLM) product "Tongyi Qianwen" developed by the plaintiff company was officially released in April 2023. In June of the same year, when the plaintiff accessed the website operated by the defendant through a mobile browser, they found that searching for "Tongyi

DOI: 10.54254/2753-7048/2025.LD25031

Qianwen" displayed multiple different download links for the "Tongyi Qianwen app", but none of them were products developed by the plaintiff. The plaintiff then used a trusted timestamp service to obtain evidence of the above content and operation process, and filed a lawsuit with Wuhan Intermediate People's Court. After trial, the court found that the defendant's use of the same or similar logo as the LLM trademark in the software download service it provided could easily lead the relevant public to mistakenly believe that the link in question was provided by the plaintiff, or that the defendant had specific connections such as authorization and cooperation with the plaintiff, constituting trademark infringement [5].

This case not only is a milestone of network trademark infringement cases in the new era, but also vividly illustrates the critical importance of trademark protection in maintaining orderly competition within digital platforms. Article 1 of China's Trademark Law emphasizes "protecting consumer and producer interests", and the court's judgement also reinforces e-commerce platforms' accountability under Article 42 of China's E-Commerce Law. This case demonstrates how adaptive trademark law is crucial for maintaining network market order and guaranteeing that participants can identify genuine products or services. Without such protections, digital markets risk descending into chaos that stifle legitimate commerce.

3.2. The impact of excessive protection on market freedom

Although trademark protection indeed has a positive effect on the market order, excessive trademark protection has a profound and extensive negative impact on market freedom.

In the process of human pursuit of democracy, freedom of speech is not only a long-standing theoretical issue, but also a persistent practical problem [6]. The famous case Jack Daniel's™ Properties, Inc. v. VIP Products LLC can be a typical example for such problem [7]. VIP made a chewable dog toy that looks like a Jack Daniel's whiskey bottle and changed the words "Jack Daniel's" to "Bad Spaniels" and "Old No. 7 Brand Tennessee Sour Mash Whiskey" to "The Old No. 2 On Your Tennessee Carpet" in its advertisement. Jack Daniel demanded that VIP stop selling the toy and placing the advertisements. VIP responded by bringing this suit, seeking a declaratory judgment that Bad Spaniels neither infringed nor diluted Jack Daniel's trademarks. However, among the three appeals in different courts, the District Court and the Supreme Court both supported the opinion that VIP had used the cribbed Jack Daniel's features as trademarks—that is, to identify the source of its own products, and ruled that VIP is liable for infringement. Another court, the United States court of appeals for the ninth circuit supported VIP's side because they thought such behaviour can be attributed to the part of freedom of expression in normal market activities. Shaughnessy defined the characteristics of parody as the creation of new products that can recognize existing objects based on their traits to ridicule them and achieve humorous or provocative effects [8]. Thus, there is a blurry boundary between whether VIP was infringing or just making an easily recognizable and harmless joke, and the opposing judgement both make sense. But as the network is becoming increasingly developed, the widespread use of such parody advertisement has also increased. Scholar Coombe believes that the use of a trademark itself is a way to organize imitative behavior, making consumers feel the consistency of the trademark product and the standardization of the goods [9]. However, to avoid potential negative impacts, infringement is more frequently ruled in such cases, while reducing risks, it also hinders market freedom. The obstruction of innovation caused by excessive protection also means that consumers may miss out on the potential benefits of innovative products that could have emerged in a more competitive and relaxed market, which causes negative impacts on market vitality.

DOI: 10.54254/2753-7048/2025.LD25031

3.3. The legal path to balance trademark protection and market freedom

It can be seen that, in the network environment, trademark protection has a dual impact on market freedom. While it acts as a crucial safeguard for businesses to establish and maintain their brand identities, enabling consumers to distinguish different goods and services, and fostering healthy competition that enriches market freedom. When it is excessive or misused, it also limits new entrants and innovation restraining market freedom. Hence, it is vital to recognize the boundary between them and find legal paths to make balance that promotes a thriving business environment.

In terms of legislation, clear standards for trademark registration are important. The most essential and basic standard is defining the distinctiveness requirements, ensuring that only trademarks with distinctive uniqueness are eligible for protection, thus preventing overbroad monopolies that could hinder market freedom and improve market activity. The lack of network trademark infringement content in the current Trademark Law cannot guarantee that there is a legal basis for the disputes in this aspect, which may lead to different judgments by different courts on the same trademark infringement cases [10]. In the network environment, the reasonable use of online trademarks is a major concern. The reasonable use, based on legitimate purposes of a trademark, is the non-dilution of the trademark without the permission of its owner, and without causing confusion to others. Without limitation, the abuse of trademarks will be rampant, posing a threat to social interests and making trademark legislation difficult.

On the other hand, in the judicial realm, courts bear the heavy responsibility of interpreting the law fairly and accurately, and judges need to apply the law strictly yet flexibly. Besides, in the network environment, evidence is different from written evidence, as electronic data is difficult to track and not conducive to long-term preservation, so it is vital to enhance pre-litigation preservation, which can effectively prevent the loss of trademark infringement evidence in the online environment. However, so far, many countries still have insufficient measures for pre-litigation preservation, and not all cases of online trademark infringement can be subject to pre-litigation preservation. Moreover, the judicial review mechanism can be strengthened to ensure that decisions made in trademark cases are consistent and in line with the goal of maintaining the positive effect of both trademark protection and freedom. Through these efforts in both legislative and judicial aspects, a proper balance can be achieved to foster a healthy business environment in the network.

3.4. International experience and inspiration

The global nature of the internet makes trademark infringement a cross-border issue, requiring coordinated legal responses across jurisdictions. Different countries have developed distinct approaches to balancing trademark protection with market freedom in the digital environment, offering valuable lessons for refining domestic policies. By examining these international practices, effective strategies can be identified while potential pitfalls in regulating online commercial activities can be avoided.

The United States provides a notable example through its application of the Lanham Act to online trademark disputes. In the case Rescuecom Corp. v. Google Inc. U.S. courts established that purchasing competitors' trademarks as search engine keywords could constitute infringement if it causes consumer confusion [11]. However, the fair use doctrine has also been upheld in parody cases, such as Louis Vuitton Malletier S. A. v. Haute Diggiy Dog LLC, where humorous commercial expressions were protected as free speech [12]. This flexible approach demonstrates how trademark rights can be enforced without stifling creative market participation. Meanwhile, the European

DOI: 10.54254/2753-7048/2025.LD25031

Union has taken a stricter stance on platform accountability under its Trademark Directive. The platform needs to undertake positive obligations, and establish an effective mechanism to prevent repeated infringement.

China's legal framework has similarly evolved to address network trademark challenges, though there is still room for improvement. The E-Commerce Law imposes removal obligations on platforms when notified of infringements, yet enforcement inconsistencies persist. Cybersquatting has been successfully prevented by international cooperation mechanisms such as WIPO's Uniform Domain-Name Dispute-Resolution Policy (UDRP); yet, structural problems in transnational enforcement are revealed by jurisdictional disputes over evidence collecting.

4. Conclusion

In conclusion, in the digital age, the network environment has become a vibrant yet complex stage where trademark infringement protection and market freedom are delicately intertwined. The new forms and features of trademark infringement in the network environment have presented significant challenges, while also giving rise to new demands for market freedom. Striking the proper balance between trademark infringement protection and market freedom in the digital realm is an ongoing and challenging task. It requires continuous efforts from legislators, judicial authorities, businesses, and consumers together. By constantly refining the legal framework and ensuring its proper implementation, a healthy commercial order in the network can be created that allows trademarks to be protected while market freedom thrives. This, in turn, will also improve innovation, promote fair competition, and enhance the overall prosperity of the digital marketplace, making both businesses and consumers to be benefit from the network era.

This paper provides a comprehensive theoretical analysis of the contradictions and the necessary balance between trademark infringement protection and market freedom on network. However, it does not delve deeply into detailed solutions in legislation and judicial practice.

In the future, as the focus of market development shifts from the real economy to the network economy, the focus of legal protection for trademarks will also shift accordingly. To keeping a good market order on network, the proper solution on this issue will be finally find.

References

[1] Zeng, T. (2011). Network Environment Trademark Infringement Typology and Its Legal Regulation. Wuhan: Huazhong University of Science and Technology.

[2] Wang, Q. H. (2019). Network Environment Trademark Infringement. Changchun: Changchun University of Science and Technology.

[3] Chinese Judgments Online (2019). Xiamen Yiming Technology Co., Ltd. v. LRC Products Co., Ltd., Civil Ruling on Reexamination and Trial Supervision. No. Jing Min Shen 6706. Retrieved from https: //wenshu.court.gov.cn/website/wenshu/181107ANFZ0BXSK4/index.html?docId=YeDEDDxw7PTIcuBwTpEWMzw4fBk7tYZxJaG+uA7EhyKyq0X5OquzGZ/dgBYosE2g7SN0j3oRx0EEe6IuZ6ddX36Tlc7uLcqVQ+fwxC3UY7oSCh58rBWhhLZc6n4adrXQoGr7iiaCHHqMRAO3fZPpg5OZ0g8/krhW,.

[4] Zheng, C. S. (2003). Intellectual Property Law. Beijing: Law Press, 224.

[5] Tian, D. M., & Zhu, J. J. (2025, April 23). Hubei Province Courts Explore Clarifying the Adjudication Boundaries of AI-Related Cases. China Youth Daily. Retrieved from https: //www.hbfy.gov.cn/DocManage/ViewDoc?docId=dfe695c1-8515-4d59-aafb-43fc95f85f42

[6] Zhang, H. B. (2015). On the Coordination of Freedom of Speech and Trademark Rights. Journal of Journalism and Communication Studies, 22(07).

[7] U.S. Supreme Court. (2023). Jack Danie's Props., Inc. v. VIP Prods. LLC, 599 U.S. Retrieved from__https: //supreme.justia.com/cases/federal/us/599/22-148/.

DOI: 10.54254/2753-7048/2025.LD25031

[8] Shaughnessy, R. J. (1986). Trademark Parody, A Fair Use and First Amendment Analysis. Virginia Law Review, 1079-1117.
[9] Coombe, R. J. (1998). The Cultural Life of Intellectual Properties: Authorship, Appropriation, and the Law. Durham: Duke University Press. pp. 165-168.
[10] Feng, Z. W. (2016). On the Protection of Trademark Rights in China's Network Environment [D]. Guangzhou: South China University of Technology.
[11] Zhi, X. (2009). U.S. Appeals Court Rules Google Trademark Infringement Case Should Be Heard. Retrieved from http: //r.gbicom.cn/wz/2185.html
[12] Trace Your Case. (2007). Louis Vuitton Malletier S.A. v. Haute Diggity Dog, LLC. United States Court of Appeals for the Fourth Circuit, 507 F.3d 252. Retrieved from https: //traceyourcase.com/louis-vuitton-malletier-s-a-v-haute-diggity-dog-llc-507-f-3d-252-4th-cir-2007/.