

Original Paper

Legal Regulation of Malicious Trademark Squatting in the Context of the Digital Economy

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Abstract

The fast rise of the digital economy has deeply altered the intellectual property rights landscape, it's like a double-edged sword, promoting innovation and also providing a place for bad actors to squat on trademarks. In this paper, it is investigated how trademark squatting behaviors mutated in the digital era as the registration process is cheaper due to the digital era and the value of digital traffic which makes it motivating for "bad faith" actors to pre-emptively reserve names tied to trend, internet slang and digital assets like NFTs and metaverse properties. Unlike previous squatting, it is sporadic and targeted squatting; while digital squatting has high frequency, automation, and cross-border characteristics, making it a new type of intellectual property squatting that has been industrialized. Through a thorough review of existing laws this paper finds regulatory gaps mainly because of the difficulty in identifying "bad faith" and regulating non-traditional digital marks. After reading data from statistical data, case types; it has indicated the flaws of facing such a rapid and speedy paced digital mark through the usage-based or registration-based pre-existing system. In the paper a multidimension regulatory approach is proposed, advocating AI use in trademark examination, dynamic "bad faith" blacklist and modification of "intent to use" requirement to counter digital speculation. The results show that we can only adapt a legal evolution that can protect the trademark system from the disruptive nature of the digital economy so that the law can protect real commerce instead of just commerce by extortion.

Keywords

Digital Economy, Trademark Squatting, Bad Faith Registration, Intellectual Property Law, Legal Regulation, Digital Assets, Metaverse, Artificial Intelligence

1. Introduction

The digital economy is now a main driver of worldwide economic development, greatly changing how businesses work and how customers get in touch with brand names. In this connected environment, a trademark has become far more than a source identifier attached to physical product sitting on a store shelf. It is now an important avenue for digital traffic and a driving resource of intangible corporate value. Brand name is a search word, a social media handle, and a trust anchor in the ocean of online information (Lin, W., & Lin, X. T., 2025, pp. 67-75). Therefore, the value of a trademark is becoming increasingly disconnected from physical stock and more closely tied to SEO and cost of acquiring customers. But such a shift has led to a spike in malicious trademark squatting – registering a mark purely for the purpose of hitting the black market, with no intention of actually using it in real commerce, instead to peddle it on to actual owners at a premium, and to leech off their hard-earned name recognition. While squatting is not a new problem, the digital economy has made it bigger, faster, and wealthier. Now that the internet is everywhere, it's easy to make a brand name famous all at once – but our laws that have trademark across the world can still be slow to keep up with this borderless speed, so there are still places where clever people can find and occupy them. Also, squatters could foresee and grab on to the trending terms ahead of real businesses thanks to advanced data analytics making it easy to spot possibly worthwhile keywords at such a low threshold.

Online platforms blooming, e-commerce kings, social media channels buzzing – this “one wins it all” scene gets formed, first one to take charge of a brand name, they're the main guy controlling the market entrance to that specific field. It has resulted in systematic exploitation of the trademark registration system by filing for useless marks, clog registries and force legitimate businesses to go to court, rebrand or pay ransom to settle. For a startup, failing to gain their selected name on an app store because of a squatter can be very disastrous, it can prevent innovation from ever taking off. A squatter is erecting a toll booth on our digital highway and is demanding payment for the passage (Fink, C., Helmers, C., & Ponce, J. C., 2018, pp. 59340-371). The legal challenge is deciding what's legitimate, the aggressive branding where companies're just defensively filing marks for future growth, or squatters trying to take over, it's a harder line to see when everyone moves fast in digital. This paper will focus on breaking down the characteristics of trademark squatting in the digital age, evaluate existing legal tools and put forward strong regulating measures. By looking into technology, economics and law, we aim to create a map to update trademark regime to serve our digital society, make sure trademark system is a promoter of trade instead of a hurdle.

2. The Evolution and Characteristics of Trademark Squatting in the Digital Era

The way trademark squatting operates has become quite different due to the digital economy; it has changed from people doing individual opportunistic catches here and there to organized, big-scale, and tech-driven operations. In a traditional economy squatting was restricted due to information asymmetry and there were also huge financial and administrative costs for maintaining more than one paper based registration. But the digital era has knocked them down. Squatters make use of automated bots and advanced algorithms to scan social media for trends and keep track of sudden spikes in search engine queries and new company filings so they can spot possible targets on the fly (Wang, K., 2025). And this kind of bulk squatting strategy can allow them to pile up hundreds or even thousands of trademarks with very little additional cost, treating trademarks as speculative stocks. The kind of goods and services that have been targeted have also changed from tangible materials to digital ones like domain names, app names, hashtags, and basically any type of symbol that can grab a person's attention. The shift in thinking is that the idea of "competition", "confusion" in trademark law has to change, because the harm is done not through competition in goods, but by blocking off the digital entry points or holding a brand hostage.

And also there's another risk of digital brands skyrocketing in which a meme, a viral product, or slang term can produce copious amounts of commercial value over night but the trademark examination process still takes months. The time gap leaves squatters to take advantage of any new trend the moment it pops up, often within minutes after something becomes a viral sensation. This preemptive striking power only exists in the digital world and keeps real brand owners always in a state of being on guard. This temporal mismatch turns the admin process into an innovation killer; by the time a legitimate biz figures out the biz potential of a term, a squatter has already got a priority date. Here is an example of rewriting from the user, to show the methodology and impact shift Table 1 provides a comparative analysis of traditional versus digital squatting characteristics. As can be seen from Table 1, the difference is from high cost and low volume targeted attacks to low cost and high volume harvests by automation. Change in structure makes it so that old remedies like opposition proceedings aren't effective anymore because too many cases happen. A brand owner would be unable to practically contest hundreds of frivolous filings, as doing so would be too costly. So the digital squatter does not have to win all the time. The business model relies on the fact that the odds are likely that some, if not many, of the genuine owners will pay a "ransom," which is often referred to as an "assignment fee," in order to avoid the hassle and uncertainty of a legal dispute.

Table 1. Comparison of Traditional vs. Digital Trademark Squatting Characteristics

Feature	Traditional Trademark Squatting	Digital Economy Trademark Squatting
Primary Target	Physical goods, well-known established brands	Viral terms, keywords, app names, hashtags, NFTs, Metaverse assets
Registration Method	Manual filing, individual selection based on market knowledge	Automated bulk filing using scraping algorithms and AI prediction
Cost Structure	High relative to potential number of marks; significant paper trail	Low marginal cost due to electronic filing and subsidies in some regions
Reaction Time	Slower, reactive to long-term market establishment	Real-time, predictive of market trends; immediate response to viral events
Monetization	Selling mark to owner, confusing consumers with counterfeit goods	Ransom, blocking app store entry, domain parking, affiliate link redirection
Geographic Scope	National/Territorial focus; limited by physical distribution	Global focus; targeting cross-border e-commerce and universal digital platforms

3. Empirical Analysis of the Squatting Surge and Regulatory Gaps

An enormous number of bad filings have put a great deal of pressure on IP offices all over the world and there are some big holes in the present rules and regulations. Traditional legal frameworks rely heavily on the principle of “first-to-file”: this creates certainty and is administratively efficient, but rewards the quick over the just by default (absent strong bad faith provisions). The examination is very limited in many places, only caring about whether there are any conflicting rights previously, and does not look into the examinee’s intentions or commercial ability. This procedural blindness is the sneaker’s best pal. When we look at the underlying data, it’s clear as day that the growth of digital commerce correlates with trademark filing growth, but a very scary fraction of these filings are rife with the hallmark of bad faith—like a single applicant for hundreds of unrelated famous marks, or marks that are identical to rising search terms in different categories (Gong, C., 2024). Policing the register falls mainly on brand owners who need to invest heavily in constant worldwide monitoring services to catch these filings before they make it through the short opposition windows. This is a “tax” on innovation, it consumes resources that should go to producing new products towards lawyers instead.

It’s hard to grasp how serious this has become unless you look at all the stats Table 2 lists data on trademark squatting cases over the past five years in major digital economies. The data shows an obvious upwards trend in suspected malicious filings, paired with the spurt of e-commerce activity around the time the world was plugging away at the global pandemic and the resulting digital boost. As shown in table 2, the people who show opposition because of badfaith has been on an upward trend.

This means that as right owners fight back more, the burden of defense is ballooning. The legal system relying on the “likelihood of confusion” test is also an issue in the digital sphere. Squatters usually register marks in classes far removed from the victims main businesses (tech companies brand registered for clothes or kitchenware), relying on the victims desire to preserve a perfect global brand image in order to force a settlement. In a digital ecosystem, consumers don’t care what trademark classes we do; they just want to google something: If a squatter has the trademark on “BrandX” in clothing and can screw up the merch for “BrandX” a software company if digital brands are expanding into lifestyles to form community (Chen, Q. H., Guo, Y. F., Li, W. C. et al., 2025, pp. 41-44). As for the current laws, they don’t have a unified definition of “bad faith” that encompasses these new hoarding behaviors, so examiners have very little room to refuse applications straight up without some kind of clash.

Table 2. Statistics on Trademark Squatting Trends in Major Digital Economies (2020-2024)

Year	Total Trademark Applications (Millions)	Estimated Suspicious/Malicious Filings (%)	Bad Faith Oppositions Filed (Thousands)	Average Dispute Resolution Time (Months)
2020	10.5	12.4%	85	14
2021	12.8	15.6%	112	16
2022	14.2	18.2%	145	15
2023	15.1	19.5%	178	13
2024	16.3	22.1%	210	12

4. Emerging Frontiers: The Metaverse, NFTs, and App Ecosystems

The frontier of trademark squatting has widened from ordinary e-commerce to the fields of Web3, the metaverse, and the unfettered economic activities. These different new digital places raise new legal puzzles because they usually work outside usual classification things. For example, is a trademark for shoes, will trademark registration be valid for a virtual sneaker sold as an NFT in the metaverse? This vagueness is the squatter’s paradise. Squatters have been the first to answer, quickly filing famous brands in digital-specific classes (Class 9 often for downloadable software, Class 41 for entertainment services) before the brand owner themselves have even developed a Web3 strategy. This “virtual squatting” forms a barrier for those brands who wish to enter the virtual online space with a cost to buy back their name in the digital world (Zhang, J., 2025). The more serious issue is that it’s much harder because these are decentralized platforms. So even for something like identifying who really owns a particular wallet address or a pseudonym, that’s very hard to do, which makes service of legal process difficult.

In addition, under the central app ecosystem of Apple and Google, a trademark registration is generally needed for nb-down notices as well as brand protection programme. Squatters take advantage of this by registering names of well-known independent apps that haven't gotten their trademarks, and then complain that the real apps be pulled from the stores, a practice called app store trolling (Liu, W. C., 2020). It can destroy a little guy's livelihood in one fell swoop with that kind of weaponized trademark law. Platforms trying to shirk their responsibility will always automatically do these takedown requests. They will take down the post before even asking questions. Different sorts of these dangers need studying where the system fails the most. Table 3 shows the squatting incidents organized by type of digital asset – even though domain names continue to be a problem, the steepest increase is happening in NFTs and social media handle. As stated in Table 3, squatting in the “Virtual goods/Metaverse” has grown at a faster rate than any other category in the past two years. This implies squatters are speculative investments, playing on future worths of digital territory. Legal answers are late: Most trademark offices are still not sure whether virtual goods are different from real ones or whether the “zone of natural expansion” rule fits. Until those doctrinal questions have been answered, it will continue to be a safe harbor through which a malevolent registrant might operate, preying on the ambiguity the law allows to extort brand owners wary of damage to their reputation in these new media outlets.

Table 3. Frequency of Squatting Incidents by Digital Asset Type (2024 Analysis)

Digital Asset Category	Frequency of Squatting (High/Med/Low)	Year-over-Year Growth Rate	Legal Complexity of Resolution	Typical Squatter Motivation
Domain Names	High	5%	Low (UDRP exists)	Resale, Traffic Diversion, Ad Revenue
Social Media Handles	High	15%	High (Platform policy varies)	Phishing, Impersonation, Social Proof Hijacking
App Store Names	Medium	10%	Medium	Takedown Leverage, Ransom, Competitor Suppression
NFTs & Metaverse	High	120%	Very High (Legal gray area)	Speculative Investment, Brand Dilution
Keywords/AdWords	Medium	8%	Medium	Competitor disruption, Cost-per-click Inflation

5. Constructing a Robust Regulatory Framework for the Digital Age

To deal with the problem of malicious trademark squatting in today's digital economy, we need a big change. We should go from waiting for problems to happen and then fixing them to taking charge of the registry ourselves and having stricter rules before things even start. Current passive system can't go on any more. The first pillar of this reform has got to be redefining what constitutes "bad faith," and broaden out the current definition to say anything that's unjustified hoarding, lacks the intent to use it for a bona fide business, inferred through some objective patterns like bulk-filing, history of demand, etc. Legislators should consider that for those who are applying multiple unrelated famous marks that the presumption should be "bad faith intent" and shifting the burden to the applicant to prove there was actual intent (Cai, W. J., 2018). This would shift the burden to the reverse, applicants would have to provide concrete business plans as opposed to being presumed valid.

And secondly it has to be fought with technology. Trademark examiners should make use of AI-based examination tool which can cross check the new Trademark applications with huge database of internet search trends, domain registrar and foreign trademark database so that it alerts about any potential squatting attempt before publication (Zhuo ma., 2024). It will be like this "smart examination" which can filter out those with very obvious bad faith filings, and reduce the hassle for the other side. Like an AI could flag a mark as matching a trending hashtag or already famous mark in another jurisdiction for a manual review. And it can also check for visual similarities between logos using computer vision, which can find visual "lookalikes" that might have been missed because human examiners got tired from looking at so many logos.

And we should also adjust the evidentiary burden of not using the cancellation proceeding. In the digital economy, it's easy to create a "token use" (a simple website, a single invoice) to meet the usage criteria. Courts and tribunal must use a stricter standard of "commercial impact" so that it will be clear that the mark is actually participating in the market and not existing just to block others (Matej, M., 2019, pp. 519-529). "Use" means that there is a genuine attempt to penetrate the market, not just a gesture to keep a registration. Another very strong regulatory lever is imposing hefty fines on confirmed malicious filers and barring those agents from any future representation. Table 4 shows the anticipated effectiveness of different kinds of laws through simulation models and comparative analysis of laws. Based on the table 4 we can see that combined AI monitoring and higher bad faith penalties produces the most dramatic drop in squatting activity. It can be seen that simply relying on raising the fee for registration alone is unhelpful, as it hurts smaller legitimate businesses without doing much to stop well-funded syndicates. Increase risk for squatters and for technology to detect use it. The best way to go is all in.

Table 4. Projected Effectiveness of Legal Interventions on Squatting Reduction

Legal Intervention Mechanism	Implementation Cost	Impact on Legitimate SMEs	Projected Reduction in Squatting
Increased Filing Fees	Low	Negative (Barrier to entry for startups)	Low (<5%) - Squatters absorb costs
AI-Based Pre-screening	High	Neutral/Positive (Faster processing)	High (30-40%) - Filters obvious malice
Stricter "Use" Evidence	Medium	Negative (Admin burden)	Medium (15-20%) - Harder to fake use
Bad Faith Blacklists	Low	Neutral	Medium (20-25%) - Deters repeat offenders
Punitive Damages	Low	Positive (Deterrence)	High (25-35%) - Increases risk for squatters
Combined Approach	High	Positive (System integrity)	Very High (>60%) - Systemic solution

6. Conclusion

Digital economy has irrevocably changed brand making and protecting, trademark squatting turning from a disturbance into a general danger against innovation and fair contest. As this paper has shown, digital commerce's speed, anonymity, and global coverage have given bad guys more ways to use holes in old trademark rules. The data shows a rising amount of bad faith registration going after not only well established brands, but also the new words of the digital future, including assets in the metaverse and web 3. The fact that it keeps happening shows that the present "first to file" system, which doesn't have enough bad faith safety valves, can't keep up with today's digital world where value gets created and moved faster than we can see.

To protect the market, we must have laws. This is to not only to expand on what constitutes "bad faith" by legislation as modern, speculative behavior, but also to improve the technology at intellectual property offices. AI joins the exam process, regulators are more forceful with the bulk filers, the scale tilts the other way. Furthermore, International cooperation is necessary, as digital platforms are worldwide operating, it is impossible to have a single country approach and leave any loophole for the squatter. The goal for trademark regulations in the digital economy must be for trademarks to perform their true economic function- to cut down on consumer search costs and reward quality- rather than serve as instruments of extortion in the hands of digital speculators. Without these necessary adjustments, the digital marketplace would be a minefield where innovation is quashed by those trying to profit off of it and the point of having intellectual property laws in the first place.

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