Patent Laws: Advancing Innovation for the Public or Inflating Private Profits?

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Abstract
Patent holders in the United States are currently provided with protection over their intellectual property for up to twenty years. This paper examines how entities known as “patent trolls” abuse this protection to force settlements with small to medium-sized companies, who are either unable to afford the associated legal costs or find that the risk is too large to litigate. The effect of patent trolling is that corporations seeking to invest in research and development are drained of financial resources, which ultimately threatens technological innovation. Patent litigation cases of this nature are growing exponentially, which has resulted in increasingly strong bipartisan support in the US Congress for patent law reform. Furthermore, corporations in the pharmaceutical industry who hold patent-created monopolies over their discoveries have been able to charge unreasonable premiums on life-saving drugs to the public’s detriment. In both of these situations, the patent system and related laws have failed to achieve a balance between protecting the intellectual property rights of patent holders and safeguarding the interests of the general public. This paper evaluates potential strategies for preventing these unethical exploitations. It also discusses how the current law can be reformed to allow new medicines to be affordable for customers and still be profitable for developers. Through carefully crafted steps, this reform could result in consumers and manufacturers sharing the benefits of continued innovation.

Keywords
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INTRODUCTION

In his 2014 State of the Union address, President Barack Obama identified patent reform as a pressing issue. He called on the United States Congress to “pass a patent reform bill that allows our businesses to stay focused on innovation, not costly and needless litigation.” Even companies that benefit from the current patent system, such as IBM, recognize the need for patent reform. The current system in the United States provides patent holders with protection over their intellectual property for up to twenty years. This protection enables patent holders to exploit their market monopolies or abuse the patent system in ways that hinder technological innovation. The increasing number of patent litigation cases threatens innovation by draining funds from companies who seek to invest in new products. In the pharmaceutical industry, patent-created monopolies are causing consumers to pay an unreasonable premium on life-saving drugs. In both cases, the patent system and related laws have failed to achieve a balance between protecting the intellectual property rights of patent holders and the interests of the general public. This paper explores the debate surrounding patent law in the United States and reveals that general strategies are available to either minimize the unethical patent practices or the resulting negative consequences.

I. PATENT TROLLS

A “patent troll” is a person or company who obtains patents for important technologies in order to collect licensing fees or royalties. Parties that engage in trolling acquire these patents at auctions from companies who are trying to liquidate their remaining assets after filing for bankruptcy. The purpose of obtaining these patents is not to develop the products or services but, rather, to monetize these patents through

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threats of infringement lawsuits. Since these frivolous lawsuits can cost millions of dollars to defend, most small to medium-sized corporations are forced to settle for a much smaller sum of damages. Consequently, this diminishes the affected companies’ available funds for research and development. One study placed the direct cost of patent trolling at $29 billion (USD) per year for defendant firms. Since the number of pending cases involving patent trolls continues to rise exponentially, the issue has become highly controversial.

There is strong bipartisan support in the US Congress for reform that would protect the innocent victims of patent trolls. However, the US Senate recently dropped a bill aimed at combatting patent trolling practices from its legislative agenda. The Senate abandoned the bill largely because of disagreements with respect to fee-shifting provisions. Under these provisions, courts may award legal fees to successful defendants if the claims brought against them were unsuccessful. These provisions address a common issue in the United States, where both parties are responsible for their own legal fees. One of the most expensive aspects of defending a patent infringement lawsuit is the discovery process. At discovery, each party must turn over relevant internal documents relating to, and demonstrating how, the contested product or service works. Defendants must retain lawyers whose services are typically very expensive during this process. Patent trolls, by contrast, are usually shell corporations that generally have little to disclose. Consequently, the process is far less expensive for patent trolls. The provisions’ “loser pays” fee structure, which is similar to those already in Canada and the European Union, would help leverage these asymmetrical litigation costs. The Internet Association, a political lobbying group consisting of well-known corporations, such as Facebook, Google, and Amazon, supports fee structure reform as a means to combat patent trolling cases.

While there is evidence to support the argument that fee structure reform would reduce cases of patent trolling, some legal analysts do not believe this would lead to a permanent solution. Instead, analysts argue that the root of the problem is the inherently

3 Ibid.


conceptual and broad nature of some patents, which allow for inadvertent infringement.\(^8\) This is especially true for software patents, which may require a scope that is broad enough to cover an entire function, such as communicating over a network or sending emails. Due to their constantly evolving nature and their rapid development cycle, software patents are four times more likely to be litigated than other patents.\(^9\) This issue has been recently addressed in the United States Supreme Court decision \textit{Alice v CLS Bank International}.\(^10\) The Court unanimously invalidated the patents of a troll, Alice Corporation, by reasoning that abstract ideas or business methods on a computer were too broad to be eligible for patent protection. While the \textit{Alice} decision was successful in combatting the issue of overbroad patents, more significant litigation must occur consistently in the future for lasting change.

Aside from the primary issues involving the nature of the patents, issues surrounding the market where trolls acquire their patents are also worth considering. When trolls acquire patents, they do not create their own forms of intellectual property through technological innovation. Trolls primarily acquire patents at auctions, where corporations that recently filed for bankruptcy liquidate their remaining assets at bargain prices. It would be unfeasible to prohibit these auctions completely, as bankrupt public corporations need a secondary market to salvage their remaining assets. Further, by allowing corporations to salvage their patented innovations, these auctions help incentivize technological progress by increasing liquidity in times of bankruptcy. Nonetheless, additional government oversight may reduce the ability of trolls to buy patents unethically and use them to launch frivolous lawsuits. Alternatively, corporations could voluntarily address these issues through their own organizational initiatives. Google, for example, created the Patent Purchase Promotion Program, which invites patent holders to sell their patents directly to Google.\(^11\) While this program is still in its infancy, Google hopes to tackle the patent troll issue by purchasing patents before patent trolls have the opportunity to do so.

In order to address the issue of patent trolls effectively, the methods discussed above need to be implemented concurrently. By overseeing patent sales, limiting the degree of inherent infringement through better defined patent scopes, and implementing fee-shifting provisions to losing parties, there will be fewer opportunities and incentives for patent trolls to start frivolous litigation.


\(^9\) \textit{Ibid}.

\(^10\) 134 S Ct 2347 (US) [\textit{Alice}].

II. MONOPOLY ON DRUGS

The US patent system currently rewards companies that invest in extensive research and development by providing up to twenty years of exclusive rights to manufacture and sell newly discovered products. The pharmaceutical industry in particular relies heavily on patents to protect its innovative discoveries. An estimated two-thirds of patented drugs would not have been developed if subsequent patent protection had not been available.\(^\text{12}\) However, critics have proposed that pharmaceutical companies have abused the patent system to continuously profit from legally protected market monopolies. Since competitors are prohibited from manufacturing patented products during the protection period, patent-holding corporations are able to sell their products with excessively high margins. The troubling consequence of this type of protection is that some life-saving medications, such as those prescribed for Hepatitis C and cancer treatment, can cost as much as $100,000 (USD). Setting these products at high prices reduces the ability of the general public to afford and access these drugs.

The prices of these medications do not become more reasonable until the existing patents expire. This allows generic drug companies to replicate the products and enter the market. However, generic drug companies accuse brand-name drug companies of prolonging the protection period by “continually tweaking old molecules to extend monopolies so that prices remain high and profits remain fat.”\(^\text{13}\) This process is known as the creation of “me too” drugs. It occurs when pharmaceutical companies improve aspects of existing drugs in order to maintain their monopoly position.\(^\text{14}\) Patent offices will allow new patents on “me too” drugs if there is a significant functional difference, such as fewer side effects.\(^\text{15}\) In theory, this process could continue indefinitely, allowing for a drug and its subsequent versions to remain at unreasonably high prices for a period in excess of twenty years. In fact, data collected within the past decade suggests that anywhere from sixty to eighty percent of current drug research and development goes towards “me too” drugs, regardless if the modifications offer little innovative value.\(^\text{16}\)

The severity of this situation is illuminated when examining the profits within the industry. In 2014, Forbes ranked Pfizer, an American pharmaceutical corporation, as the most profitable corporation in the pharmaceutical industry, with a forty-two percent


\(^{15}\) Ibid.

profit margin. For comparison purposes, Forbes reported that the most profitable oil and gas company and the most profitable bank only achieved profit margins of twenty-four and twenty-nine percent, respectively. At least four other pharmaceutical companies on the list made profit margins of twenty percent or more, including Hoffman-La Roche, AbbVie, GlaxoSmithKline, and Eli Lilly. These figures, combined with the pharmaceutical industry’s average profit margin of nineteen percent, provide further evidence of patent-exploitation within that industry.

While this situation remains a present concern, a recent landmark decision by the Supreme Court of India has caught the attention of pharmaceutical corporations and lobbyists worldwide. The decision of Novartis v Union of India & Others involved an attempt by Novartis to patent a modification to their leukemia drug, Gleevec. This modification to Gleevec made the drug more easily absorbed. It was already patented in forty other countries when the case came before the Indian court. The legal dispute between the Indian government and Novartis lasted for seven years before the Supreme Court of India made a final ruling that denied patent protection. Although the decision was influenced by India’s unique economic and political environment, the Indian Supreme Court ruled that this modified version was not substantially different from the previous version to warrant patent protection in India. In effect, Gleevec could have been priced at as little as $2,500 in India due to competition from generic drug companies, compared to $70,000 (USD) in the United States, where it was still patent-protected.

The result of the Novartis decision sent shockwaves through the pharmaceutical industry. Supporters of Novartis continue to argue that patent protection is absolutely essential to innovation due to the high costs of research and development and clinical trials. On the other hand, critics such as Doctors Without Borders claim that the issue is less about innovation and more about balancing corporate profits with the accessibility and the availability of medication. Supporters of more accessible prices argue that, “a balance is needed between the commercial rights of innovators and the rights of the poor to obtain drugs that are inaccessible to them at brand-name prices.” The World Health Organization also acknowledged that there is an “inherent conflict” between the

18 Ibid.
19 (2013), Civil Appeal Nos 2706-2716 [Novartis].
22 Collier, supra note 13.
medical and social needs of the public and the legitimate business goals of pharmaceutical companies.\textsuperscript{23}

III. FUTURE CONSIDERATIONS

The challenge ahead for regulators and policy makers is to find the balance between protecting the intellectual property rights of patent holders and safeguarding the interests of the general public. There is a general consensus amongst analysts, academics, and lobbyist groups that the current patent law system favours corporations over consumers by allowing excessive corporate profits. Furthermore, there is no guarantee that corporations will reinvest this profit in market research; it could simply be paid out to shareholders in the form of dividends. The current pricing models and twenty-year protection period must be revised in order to combat these issues. While corporations should be given time to recover costs and turn a profit for future reinvestment, they must not be able to charge unnecessary and absurdly high prices.

One possible solution to this dilemma is to place a profit cap on certain drugs and medications. This would require accounting and auditing professionals to analyze financial statements in order to determine the actual fixed costs of investment in research and development. Once these professionals have established this data, they must annually amortize the drug’s costs against its sales revenues. This approach would position patent law closer to its underlying economic purpose: to protect the investment only to a reasonable point, after which the patent shall expire and become a public good, regardless of the duration of the development. While consumers would certainly welcome this method, it would be difficult to implement and costly to monitor.

A more feasible approach than profit capping would be to mandate different price levels in different regions or populations. This method charges lower prices to consumers with lower incomes. In theory, this strategy could improve the profits of pharmaceutical firms by expanding their markets to groups of consumers who normally would not be able to afford their products. While pharmaceutical companies in developed countries do not regularly practice this method, many pharmaceutical companies in developing nations voluntarily practice some form of differential or tiered pricing. However, this model presents the risk of opportunities for arbitrage, whereby purchasers pay lower prices for a product then resell it to more lucrative market segments. To counter this, it would be necessary to implement a set of risk mitigation strategies, such as monitoring distribution channels and researching the price sensitivity of consumers. Regardless, increased differential pricing would certainly benefit the general public in countries such as the United States, where there is both a large wealth disparity and number of citizens without access to health insurance.

Although criticizing existing methods is an important preliminary step towards patent reform, positive change is difficult to implement in practice. A number of significant factors, such as government bureaucracy and a lack of funding, are causing the deterioration of the patent system. This is especially true in the United States, where understaffing and funding cuts to the Patent and Trademark Office have led to delays and backlogs. This has increased the number of low-quality patents because there is not enough time for the Patent and Trademark Office to examine individual patents in sufficient detail. Reform will also require the time and effort of industry professionals, as well as the involvement of the business community and consumers. Larger corporations in the industry should also push for co-operation amongst themselves to achieve advances in technology and science. Apple and Samsung, for example, are not promoting technological progress by continuing to litigate over minor patents that only play a small role in their products and services.\(^{24}\) Successful patent reform will therefore require more than simply changing the law.

CONCLUSION

There must be improvements to the current patent system to ensure continued research and development efforts in the private sector. Fee structure reform to a “loser pays” system is necessary to reduce the number of lawsuits from patent trolls that employ abusive tactics. There will also need to be some form of oversight on patent sales to limit the ability of trolls to obtain patents that they have no intention of using to develop a product or service. More efficient pricing strategies or variable-length patents will be needed to stop profiteering by private pharmaceutical companies. Finally, the United States Trademark and Patent Office must hire additional staff and acquire more resources to ensure that it issues higher quality patents. These efforts will create a stronger patent system that balances the rights of intellectual property holders with the broader public interest of continued innovation and access to new technologies.