

Patents as Devices of Accumulation by Exclusion: The Case of COVID-19

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As some countries were preparing to enter the 'post-covid-19 era,' news headlines consistently reported of the grim prospects that some countries would remain entrapped by the pandemic for years to come. Crucial to this transition from the pandemic to the post-pandemic era is the ability to manufacture and distribute covid-19 treatments, diagnostic technologies, and vaccines on a global scale. However, the ability to manufacture covid-19 treatments is largely regulated by the global patent system that protects monopolistic firms and their quest for profit. While patents are said to encourage innovation by protecting inventors' creative works, the idea that patents function for the greater good of society has long been challenged. The covid-19 pandemic has put an even bigger question mark on the way the global patent system works. This article provides a brief examination of how the global patent system affected the trajectory of the pandemic.

Keywords: Covid-19, pandemic, patents, vaccines, TRIPS Agreement

Introduction

After decades of negotiations, the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) was born and came into effect in January 1995. This Agreement, which sets global minimum standards of intellectual property (IP) protection, was to be enforced by the World Trade Organization (WTO). All WTO members—164 countries to be exact—must observe IP rules stipulated by the TRIPS Agreement. What is perhaps most striking about the TRIPS Agreement is that most of its negotiators were multinational companies predominantly from the US, Japan, and other developed countries from Europe. It was in the best interest of these nations and their multinationals to have a global patent system that would secure their markets around the globe. Of course, the TRIPS Agreement was staunchly opposed by many developing countries who saw the Agreement as a threat to their ability to develop technologies through imitation.

With the Covid-19 pandemic, the fears of developing countries became a reality, as illustrated by a 2020 case brought forward to the WTO. On October 2nd, 2020, the South African and Indian governments requested the WTO to waive patent rules for medicines and technologies related to Covid-19. According to the two governments, the waiver would allow developing countries to also join in the effort to combat the coronavirus. By relaxing IP rules on Covid-19, the two governments argued that developing countries would also be able to manufacture vaccines and other patented medicines and technologies to treat Covid-19. Although dozens of low-income and lower

middle-income countries support the waiver, the pharmaceutical industry and many high-income countries strongly opposed it, arguing that such a move would stifle innovation when it is most needed (Usher, 2020). Without a strong patent system in place, the argument goes, inventors will not be motivated to work on vaccines due to a lack of incentives. This article attempts to shed light on the long-standing debate about patents and their value in society. The article does so by using the recent coronavirus pandemic as a case study. A key question the author wishes to address is how patents affect the pandemic to post-pandemic transition.

The Great Patent Debate

Before delving into the long-standing patent debate, it is perhaps necessary to briefly explain how the patent system works. Although variations may be observed among the patent systems of different countries, the principles of the patent system remain largely the same. It is said that the patent system exists to promote innovation by incentivizing inventors for their creativity. Such incentives, the argument goes, may only be derived in an environment where inventors' ideas are protected from imitations. Manne and Stout (2021), for example, argue that it was because of the existence of the patent system that Covid-19 vaccines were developed so quickly. Inventors obtain patents by filing an application to the state where they provide details of how their inventions work. In return, the state grants a 'temporary' monopoly to the inventor by ensuring that his invention remains safe from third party infringement. In many countries, a patent remains in force for roughly twenty years. Patents are jurisdictional in nature, meaning that a patent filed in a specific country is only protected in that country. However, with the establishment of the WTO, the patent system became a global phenomenon, with most countries adopting the Western-style patent systems.

The debate whether patents function for the greater good of society is an old one. On the one hand, some argue that patents benefit society by protecting innovative ideas which ultimately trickle down to the public. On the other hand, some contend that the patent system, as it currently functions, does not primarily serve mainstream society. Those on this side of the argument often point to the supernatural profits gained by patent holders, the fact that many patents today serve to extract royalties rather than to innovate, and the expansion of the patent regime into previously non-patentable spaces. For some, this is evidence of a 'broken patent system' that either needs to be fixed or replaced by some alternative. These are just some of the critiques leveled against the global patent system. There are many other reasons brought up against patents. Take for example the greater flow of IP revenues from poor to rich countries, the large number of patents held by non-practicing entities, and the patenting of traditional medicines in the global South by large pharmaceutical companies hailing from the global North. These are just a few examples of how the patent system can work against mainstream society, particularly those living in low-income countries. The section below discusses how the Covid-19 pandemic exposed the situation described above.

Who Owns COVID-19 Patents?

To retrieve patents for analysis, the author used an online patent tool called PatentInspiration. The search was conducted on May 16, 2021. A simple search was conducted to retrieve patents containing the keywords "corona virus", "covid-19" or "corona-virus" in the title, abstract, and claims of patent documents. A total of 6914 patents were retrieved and subsequently analyzed below. Figure 1 shows the patent application trends for coronavirus in the period 2010 – 2020. Although patenting activity related to the coronavirus was already taking place long before the Covid-19

outbreak, it was only in the year 2020, following the discovery of the Covid-19 strain, that patenting activity shot up. This increase in patenting in 2020 could be interpreted in two ways. On the one hand, some could argue that pharmaceutical companies were actively innovating to bring about innovations to treat the pandemic. One of the challenges with this argument, however, is that patents remain in force for a rather long period of time which restricts collective efforts to combat the pandemic. On the other hand, it could be argued that in 2020, while the world was groaning from the pandemic, a patent race was taking place to ring fence technologies and medicines for treating the pandemic. In the latter case, it could be said that the Covid-19 pandemic had opened up a new frontier of exclusion where the biggest beneficiaries would be the first to lay claims on key technologies and scientific know-how. Since the patent search was conducted in early 2021, it was not possible at the time to say how many patents had been filed in 2021. However, it can be expected that 2021 will see an even larger number of patent applications related to the coronavirus.

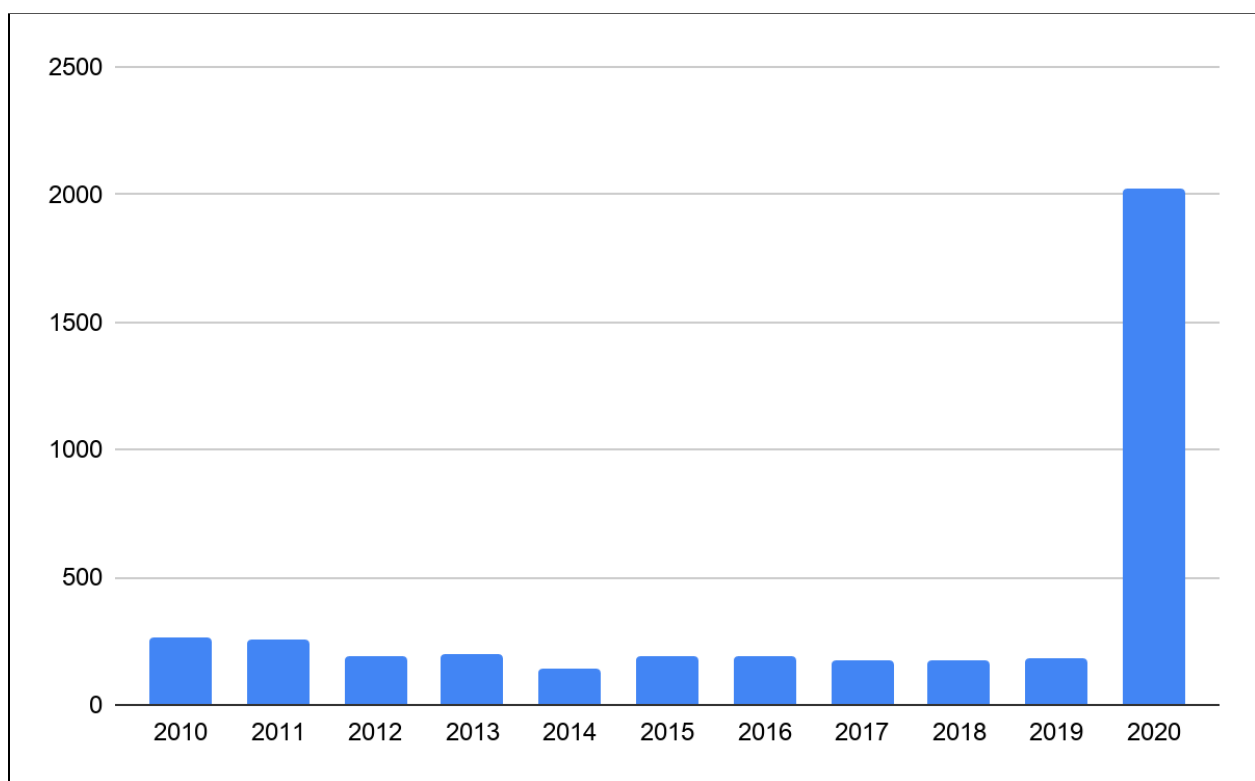


Figure 1. Patent application trend in coronavirus

Part of the struggle against the global patent regime is that it mostly benefits developed countries. These countries are considered innovators, while low-income countries serve as markets. Figure 2 shows the top ten countries owning patents related to coronavirus. Of the 6914 patents obtained from the search conducted, 2505 or 36 percent belonged to the US. China, which has the second largest number, has 1069 patents, followed by South Korea with 249. There are also several European countries among the top patent owners, including the UK, the Netherlands, Germany, France, and Switzerland. Japan owns 159 patents, followed by Canada with 126 patents and Russia with 113.

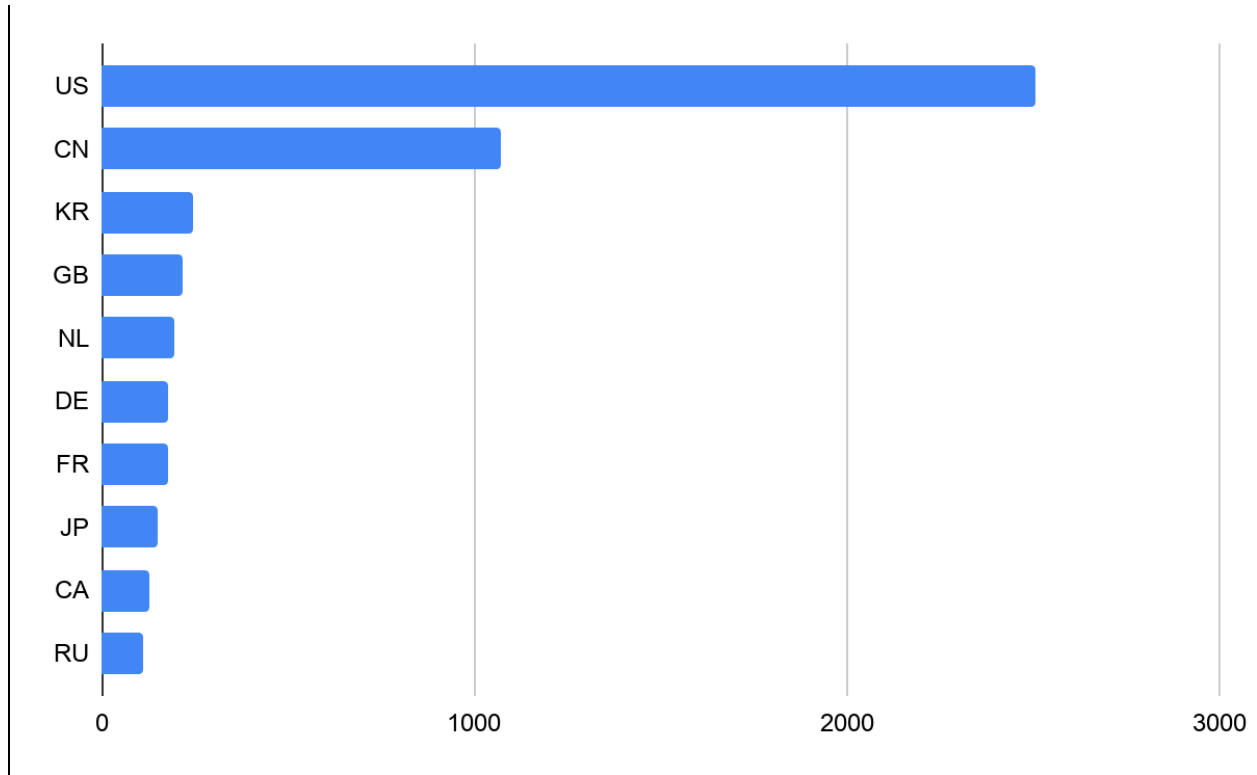


Figure 2. Top owners of coronavirus patents by country

It follows, then, that the top patent owners of coronavirus patents are rooted in developed countries. Figure 3 shows the top owners of coronavirus patents by company. Pfizer—an American multinational pharmaceutical company—has the largest number of coronavirus patents with a total of 91. Pfizer is also one of the leading companies in the world in the development of the COVID-19 vaccine. Pfizer, along with other multinational pharmaceutical companies, helped establish global patent rules through the establishing of the TRIPS Agreement. Now the company, according to Lazare (2020), is undercutting global access to the COVID-19 vaccines by opposing the South Africa-India request to the WTO. Although the company went defunct in 2009, Wyeth Corp owned 70 patents related to the coronavirus. Most of Wyeth Corp’s pharmaceutical assets were acquired by Pfizer in 2009. Apart from pharmaceutical companies, other top patent owners include academic and research institutions. This is an important point that will be discussed later in the article.

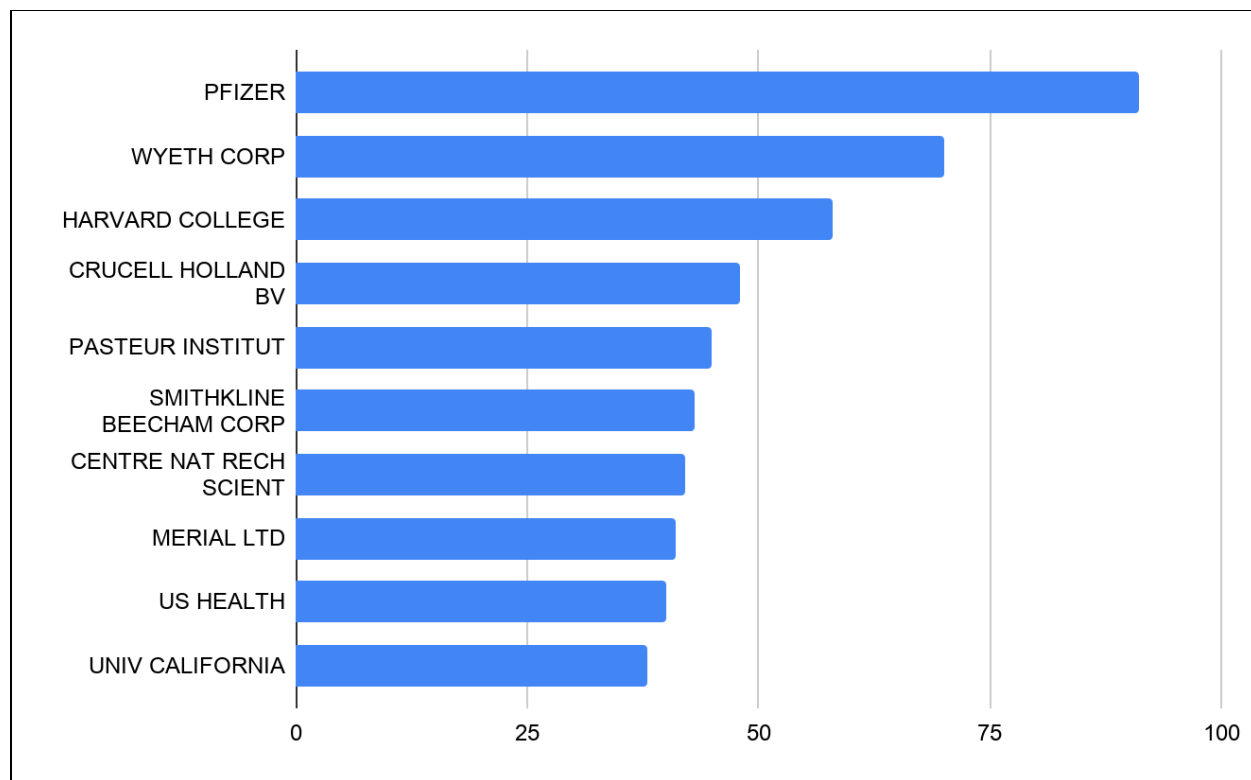


Figure 3. Top owners of coronavirus patents

Accumulation by Exclusion

Do western epistemic centers, those who Milan and Treré (2019) say produce meta narratives about the “big data revolution,” produce similar narratives about patents? How have patents, which, for the most part, have been shown to go counter to the needs of the ‘global South’ continued to be the most acclaimed method of promoting innovation? To address these questions, the work of David Harvey, particularly his theory of ‘accumulation by dispossession,’ is a good start. In *The New Imperialism*, David Harvey presents his theory of ‘accumulation by dispossession’ where he attempts to explain how wealth comes to be concentrated in the hand of a few by robbing the poor. IP, according to Harvey, may also function as a mode of accumulation by dispossession. Harvey illustrates how IP serves as a mode of accumulation by dispossession by highlighting how the global patent regime has expanded to patent indigenous knowledge in the global South. What has been called biopiracy, the patenting of indigenous knowledge by multinational companies for profit, is a classic example of accumulation by dispossession.

When it comes to IP, Harvey’s theory of accumulation by dispossession may be reworded as ‘accumulation by exclusion.’ Through patents, multinational corporations eliminate competition by building monopolies. These monopolistic firms then set the terms and conditions for the manufacture and distribution of their patented inventions. Not only that, but monopolies also set desired prices for their inventions, generating huge profits for themselves (South Africa, 2020). We see, for example, how different countries pay different prices for the same vaccines as in the case of South Africa and

European countries for the Pfizer vaccine. Thambisetty (2021) laments this situation by saying “unfortunately, for many pharmaceutical corporations, price-gouging from desperate poorer countries during a humanitarian crisis seems to be part of business as usual.”

There is also another facet to this notion of accumulation by exclusion. During the research and development phases of COVID-19-related medicines, many universities and research institutes collaborate with companies from the private industry (Thambisetty, 2021). Although such collaboration is useful for bringing innovations to life, it is sometimes quickly forgotten that some universities and research institutes are publicly funded. Unfortunately, the patent system does not prioritize the taxpayers who fund such innovations in some situations. In this way, publicly funded universities and research institutes may also contribute to monopolizing certain inventions and thus perpetuating accumulation by exclusion.

The Way Forward

IP scholars continue to search for ways to ‘fix’ the ‘broken’ patent system. Dratler (2010) recommends reducing patentable subject matter and adopting a first-to-file system that requires worldwide novelty. Many IP scholars have offered similar minor modifications to the current patent system. However, some have called for more radical alternatives, such as disbanding the patent system altogether (Boldrin & Levine, 2013; Weissmann, 2012). Boldrin and Levine (2013), for example, support the disbanding of the patent system due to a lack of evidence that strong patent rules promote innovation. “The best solution,” according to Boldrin and Levine, “is to abolish patents entirely through strong constitutional measures and to find other legislative instruments, less open to lobbying and rent-seeking, to foster innovation whenever there is clear evidence that laissez-faire under-supplies it” (p. 1). While there are flexibilities in the current global patent system that allows for bypassing patent rules in certain situations, there is more to be done to ensure equitable access of life saving-technologies and medicines.

Conclusion

This article sought to highlight how patents function as a mode of accumulation by exclusion. Using the case of COVID-19, the article showed how patents exclude others, particularly those living in the global South, leaving them entrapped by the pandemic for longer. Of course, it could be argued that patents were crucial to the rapid development of the COVID-19 vaccines that were quickly rolled out in some countries. However, the narrow view that only patents can encourage innovation limits the space to search for alternatives. The way forward must be one that strikes the right balance between incentivizing inventors while delivering innovation as a public good. This is especially true for innovations funded in some or another by the public.

Recommended Readings

Shiva, V. (2001). *Protect or plunder?: Understanding intellectual property rights*. Zed Books.

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