Special Considerations for Patent Exhaustion in Software-Related Inventions

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Innovation makes it easier than ever for international communities to come closer together. Much of this innovation is in the form of software products, which routinely cross one or more national borders before reaching a final point of sale. Nevertheless, Article 6 of the Agreement on Trade Related Aspects of Intellectual Property (TRIPS) explicitly says that “[f]or the purposes of dispute settlement under this [TRIPS] Agreement, subject to the provisions of Articles 3 [which discusses national treatment] and 4 [which discusses most favored nation treatment] nothing in this [TRIPS] Agreement shall be used to address the issue of the exhaustion of intellectual property rights.”¹ As a result, each World Trade Organization (WTO) country is free to set its own policy regarding exhaustion of patent rights. While this article mainly focuses on patent exhaustion as it relates to software products, it is important to recognize that the exhaustion of different forms of intellectual property may be handled differently, even within the same country.

Because each WTO country is free to set its own policy regarding exhaustion of patent rights, the issue of parallel imports causes many disagreements amongst different countries. At the highest level, these disagreements are between developed (or industrialized) countries and developing countries, and stem from how these different countries treat the exhaustion of patent rights as it relates to parallel imports. As noted, the TRIPS Agreement purposefully does not resolve the issue of patent exhaustion and, as a result, grants each country the autonomy to decide how to treat parallel imports.

To understand the issues associated with parallel imports, it is important to understand how a national exhaustion regime, an international exhaustion regime, and a regional exhaustion regime
The second part of this article discusses the different exhaustion regimes and the motivations for choosing one exhaustion regime over another. This article next discusses the history of patent exhaustion in the United States and the United States’ current position regarding patent exhaustion and then it explores the Supreme Court’s recent copyright exhaustion decision in *Kirtsaeng v. John Wiley & Sons, Inc.*, and how *Kirtsaeng* might affect exhaustion of patented software products. Finally, this article discusses the Supreme Court’s recent patent exhaustion decision in *Bowman v. Monsanto Co.*, and how the *Monsanto* decision might affect exhaustion of self-replicating software products.

**H1 The Different Intellectual Property Exhaustion Regimes and the Motivations for Choosing One Regime Over Another**

Once an authorized sale occurs within any country, intellectual property rights attached to that particular item are exhausted within that particular country. Despite the right to do otherwise, some countries do not limit their exhaustion laws to their particular national territory. Countries choosing not to limit their exhaustion laws to their particular national territory choose either international exhaustion or regional exhaustion, or some other hybrid version of exhaustion. The differences among the three types of exhaustion are explained below.

**H2 National Exhaustion**

In a “national” exhaustion country, only the domestic sale of an item exhausts the patent holder's rights in that particular item.\(^2\) The practical effect of a national exhaustion regime is that anyone wanting to import an item, which is covered by a domestic patent, will have to obtain a license from the patent owner to avoid patent infringement. From the point of view of the patent holder, the national exhaustion regime is by far the least restrictive of the three types of exhaustion because it allows the patent holder to segment markets based on price.

Currently, the United States adheres to a national patent exhaustion regime, which is typical of many developed nations. The reason is simple: A national exhaustion regime enhances the
exclusive rights of patent holders and forecloses parallel importing. As a result, the patent holder in a national exhaustion country has the ability to set the price point without having to worry about being undercut in the domestic market by an importer. This leads to higher prices for products in wealthier countries, which in effect subsidizes further research, and to lower prices in developing countries. In other words, a patent holder in a national exhaustion country can prevent parallel imports and, therefore, benefits by being able to keep the price of its patented item at an elevated level due to its limited monopoly. Overall, a national exhaustion regime favors the patent owner over the consumer.

H2International Exhaustion

In an “international” exhaustion country, the sale of a patented item anywhere in the world exhausts the patent owner’s rights in that item. In other words, international exhaustion prevents a patent holder, who has authorized a sale of a patented product abroad, from exercising any determination over the conditions of resale of the same product domestically.

Market forces dictate that the adoption of an international exhaustion regime encourages parallel importing. For example, in an international exhaustion country, an arbitrageur can easily exploit the price difference between two countries and undercut the intellectual property owner’s pricing structure. In effect, this eliminates the intellectual property holder’s ability to segment markets based on price. As a result, some argue that international exhaustion exerts pressure on patent holders to inflate their international pricing structures in order to avoid being undercut by arbitrageurs who purchase products at a reduced price on the international market. For this reason, patent holders may be less likely to donate products at low or no cost due to the fear of importation into developed countries. Others point out that political pressure keeps the pressure to artificially inflate international pricing at bay.

Viewed broadly, international exhaustion strongly favors consumers because it allows a retailer to find the cheapest item on the world market and re-sell that item at the lowest price domestically. In addition, developing nations typically already have the lowest market price in the
world and, therefore, generally choose to adhere to an international exhaustion regime. This is not to say that no developed nations have adopted an international exhaustion regime. To the contrary, some highly developed nations have adopted some form of international exhaustion in order to provide their consumers with more purchasing power. Japan, for example, has adopted a default international exhaustion regime. Japan’s exhaustion regime, however, allows the patent owner to opt out of this default regime and to have its patented items treated as if they are in a national exhaustion country.

**H2 Regional Exhaustion**

A “regional” exhaustion country is a hybrid of the national and international exhaustion regimes. The sale of the patented item within the region exhausts the rights of the item domestically and within any other country in the region. However, the sale of the patented item outside of the region does not exhaust the patent owner’s rights domestically or in any other country that is part of the region.

The European Union has adopted regional exhaustion. Therefore, the sale of a patented item in Germany will exhaust the patent owner’s rights not only in Germany, but also within the whole European Union. However, the sale of a product outside the European Union does not exhaust the patent owner’s rights domestically or any other European Union member country.

This hybrid approach takes the best of both worlds. On one hand, it encourages free trade among countries that are in the same region. On the other, it prevents arbitrageurs from bringing outside items into the region and undercutting the patent holder’s pricing structure.

**H1 The History of Patent Exhaustion in the United States and Its Current Position Regarding Patent Exhaustion**

Patent exhaustion, unlike copyright exhaustion, has not been codified by Congress. However, patent exhaustion has been developed through the courts and was first introduced by the Supreme Court in *Bloomer v. McQuewan*, which held that “when the machine passes to the hands of the
purchaser, it is no longer within the limits of the monopoly. It passes outside of it, and is no longer under the protection of the act of Congress.”

For more than a century, the United States adhered to a modified international patent exhaustion regime, which is based on the decision in *Holiday v. Mattheson*. In *Mattheson*, the court held that by selling a patented item abroad without imposing any conditions on the use or resale of the patented item, a US patent holder cannot prevent the purchaser of that particular item from using or selling that particular item in the United States. This is because by failing to impose conditions on the international sale, the patent holder waived its right to prevent the importation of that item into the United States. Said differently, the patent holder, through express contractual language, was able to restrict the application of the international exhaustion rule. By way of this modified rule of intentional exhaustion, the patent holder was able to restrict the first purchaser’s ability to resell or use the product in the United States, thereby avoiding the limitations of the doctrine of exhaustion.

Recently, the Court of Appeals for the Federal Circuit (CAFC) signaled an important change in the United States’ stance towards patent exhaustion. Specifically, in *Jazz Photo v. International Trade Commission*, the CAFC, without articulating any reasoning for the change, held that the foreign sale of a patented item, which was authorized by the US patent holder, does not exhaust US patent rights in that particular item. Said differently, the doctrine of patent exhaustion will only apply to patented goods originally sold in the United States and, therefore, it is no longer necessary for the patent holder to use contractual language to avoid the application of the international exhaustion rule.

This does not mean that contractual language is no longer important. To the contrary, in *Quanta Computer, Inc. v. LG Electronics*, the Supreme Court did not address the question of whether a patent holder can preserve its patent rights by placing contractual restrictions on licensees of its patented products. In other words, it may be possible for a patent holder to avoid exhaustion of its patent rights by placing contractual limitations on a licensee’s ability to make an authorized sale. In addition, even if the patent holder’s patent rights are exhausted after licensing its patented product, it
may still be possible for the patent holder to recover damages using a breach-of-contract claim.  

Therefore, it may not always be the case that the patent holder is foreclosed from extracting license fees from users downstream of the original licensee. This point is important for patent holders of software-related inventions and should result in a more thorough and refined license drafting process for software-related inventions.

**H1 The Supreme Court’s Recent Copyright Exhaustion Decision and How This Decision Might Affect Exhaustion of Patented Software Products**

Recently, in *Kirtsaeng v. John Wiley & Sons, Inc.*, the Supreme Court addressed the issue of whether exhaustion applies to copyrighted works sold abroad. The facts of *Kirtsaeng* are straightforward. While in the United States, Kirtsaeng acquired foreign edition English-language textbooks from Thailand, where they sold at a low price, and re-sold these textbooks for a profit in the United States. Through statutory interpretation, the Supreme Court held that exhaustion does apply to copyrighted works sold abroad. To be clear, *Kirtsaeng* does not address whether exhaustion applies to patented products sold abroad. However, *Kirtsaeng*, at least in the macro sense, seems to challenge the CAFC’s precedent set forth in *Jazz Photo*, which, as discussed above, flatly rejected international exhaustion.

Following the holding in *Kirtsaeng*, Ninestar Technology Co. asked the Supreme Court to address a question parallel to that of *Kirtsaeng*. Namely, “whether the initial authorized sale outside the United States of a patented item terminates all patent rights to that item.” Although the facts of *Ninestar*, which involved manufacturing and making an authorized sale of a patented product in a foreign country and importing the patented product into the United States, were quite similar to those of *Kirtsaeng*, the Court denied Ninestar’s petition for *certiorari*. In other words, the Supreme Court declined Ninestar’s invitation to change the United States to an international exhaustion nation.

For at least these reasons, *Kirtsaeng* does not appear to have any clear applicability to the exhaustion of patented software products. In addition, the Court’s decision in *Kirtsaeng* was solely
based on statutory interpretation of the 17 U.S.C. § 109(a), the portion of the Copyright Act that codifies exhaustion. As mentioned above, unlike the Copyright Act, the Patent Act does not codify exhaustion. Therefore, the statutory interpretation in Kirtsaeng has little to no bearing on the judicially created doctrine of patent exhaustion.

The Supreme Court’s denial of certiorari in Ninestar, however, should not be mistaken as being determinative of the Court’s view on whether the initial authorized sale outside the United States of a patented item terminates all patent rights to that item. Rather, this question simply remains open. While it is not unheard of for US courts to borrow or adopt jurisprudence across different forms of intellectual property, for now, Jazz Photo is the authoritative case on this point — meaning that the United States adheres to a national patent exhaustion regime. The most cautious course for software patent holders is to give careful consideration to express limits and licenses on use of patented technology to avoid any unintended application of exhaustion.

The Supreme Court’s Recent Patent Exhaustion Decision and How That Decision Might Affect Exhaustion of Self-Replicating Software Products

Use of a software program often involves the creation of temporary additional copies of the software program. The creation of additional copies of the software program could be characterized as “self-replication.” In addition, some “good” computer viruses are self-replicating programs that are used to remove “bad” computer viruses.

Recently, in Bowman v. Monsanto Co., the Supreme Court addressed the issue of how patent exhaustion applies to self-replicating technologies. Briefly, the facts of this case are as follows, Monsanto is the manufacturer and patent holder of the herbicide “Roundup.” Monsanto also patented a gene that is tolerant to the Roundup herbicide. Soybeans incorporating this gene are called “Roundup-Ready” soybeans. Monsanto sells Roundup-Ready soybeans pursuant to a “Technology Agreement.” That is, Monsanto does not sell the Roundup-Read soybeans unconditionally. Rather, under the Technology Agreement, the farmers who license the Roundup-Ready soybeans agree that
they will not save and replant any soybeans from the crop grown using the licensed Roundup-Ready soybeans. Bowman knew that many farmers in his area were licensees of Monsanto so he purchased and planted commodity soybeans from a local grain elevator. He sprayed these commodity soybeans with Roundup knowing that any surviving soybean plant had (and would produce) Monsanto’s patented Roundup-Ready gene. In an effort to avoid paying Monsanto’s license fees, Bowman saved and replanted the soybeans from the surviving plants.

The Supreme Court explained that “[u]nder the patent exhaustion doctrine, Bowman could resell the patented soybeans he purchased from the grain elevator; so too he could consume the beans himself or feed them to his animals. Monsanto, although the patent holder, would have no business interfering in those uses of Roundup Ready beans. But the exhaustion doctrine does not enable Bowman to make additional patented soybeans without Monsanto’s permission (either express or implied). And that is precisely what Bowman did.”

The Court went out of its way to limit its holding by explaining that:

text[our holding today is limited—addressing the situation before us, rather than every one involving a self-replicating product. We recognize that such inventions are becoming ever more prevalent, complex, and diverse. In another case, the article’s self-replication might occur outside the purchaser’s control. Or it might be a necessary but incidental step in using the item for another purpose. Cf. 17 U. S. C. §117(a)(1) (‘[I]t is not [a copyright] infringement for the owner of a copy of a computer program to make . . . another copy or adaptation of that computer program provide[d] that such a new copy or adaptation is created as an essential step in the utilization of the computer program’). We need not address here whether or how the doctrine of patent exhaustion would apply in such circumstances. In the case at hand, Bowman planted Monsanto’s patented soybeans solely to make and market replicas of
them, thus depriving the company of the reward patent law provides for the sale of each article. Patent exhaustion provides no haven for that conduct.\textsuperscript{27}

In other words, the Supreme Court went out of its way to limit the holding in \textit{Monsanto} to the particular facts of that case. Therefore, the \textit{Monsanto} decision may not be directly applicable to self-replicating software products. Nevertheless, the Court signaled that self-replication outside the purchaser’s control, and self-replication that is a necessary but incidental step in using the item for another purpose may not result in infringement. In addition, the \textit{Monsanto} decision further solidifies the point that a well-drafted license agreement is important to ensuring that the patent holder’s rights are retained to the extent permissible.

**Conclusion**

Although the Court’s holdings in \textit{Quanta} and \textit{Kirtsaeng} seem to chip away at the IP holder’s rights, the Court’s holding in \textit{Monsanto} and decision to deny \textit{certiorari} in \textit{Ninestar} seem to signal the Court’s desire to strengthen the patent rights in the United States. Moving forward, in order to minimize the effects of patent exhaustion and to control downstream licensee actions, a patent holder of a software-related product, self-replicating or otherwise, should ensure that the product flows through a predetermined distribution and manufacturing channel so as to avoid inadvertently exhausting the patent holder’s rights. In addition, patent holders of self-replicating software-related products should ensure that its license agreements are carefully drafted so as to temporally restrict the licensee’s use of the self-replicating software to a predetermined number of generations, and to restrict the alienability of the software-related product.

Notes

4 Id.
6 See supra.
7 Id.
8 Id.
9 Id.
10 Indian Patent Act, § 107A (1970), as amended in 2002 (provides that importation of patented products by any person from a person who is duly authorized by the patentee to sell or distribute the product shall not be considered as an infringement of a patent right).
11 Canon Inc. v. Recycle Assist Co. Ltd., 2006 (ju) 826 (Supreme Court, November 8, 2007).
14 Id.
15 Id.
16 Id.
17 Id.
18 Bloomer v. McQuewan, 55 U.S. 539, 549 (1852).
21 Id. citing Curtiss Aeroplane, 266 F. at 72; and Kabushiki Kaisha, 690 F. Supp. at 1344.
23 See Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617, 637 n.7 (2008), noting that LGE’s complaint does not include a breach-of-contract claim, and that the Court declines to express an opinion on whether contract damages might be available even though exhaustion operates to eliminate patent damages.
27 Id. at 10.