

To Promote Service Innovation: Proposal for a New Intellectual Property Right to Protect and Share Innovative Services

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This paper proposes a new intellectual property right to promote service innovation. Although holders of the proposed right will be able to neither monopolize the use of the inventions nor collect a license fee, the right could give inventors an effective incentive to invent innovative services. The right could protect inventions of service, promote the efficient use of the inventions, restrict free riding, and complement the existing patent law.

1. Introduction

This paper examines the ideal intellectual property right that can promote service innovation. Since productivity of service industries in Japan is lower than that in other developed countries, promoting service innovation is a major issue for Japan.

If a patent is granted, the assignee obtains a strong monopolistic advantage. However, the service industry is sometimes inappropriate for monopoly business. Patenting services often does not benefit the public, because the diffusion of the service is delayed.

This paper investigates how to promote service innovation by striking a proper balance between controlling it by law and sharing it as commons.

2. Problems of the Patent System

Patent systems have some significant problems. For example, problems related to patent trolls have emerged over the past decade. Patent trolls do not manufacture products using their patent. Instead, they negotiate licensing fees with infringers. Thus, patent trolls sometimes discourage the use of innovations.

Is the current intellectual property right system the best solution for the creation and use of innovations? Is the current protection of patent rights too strong? Economists and lawyers have raised questions such as the following:

McMillan (2002)

A patent is a compromise solution to a problem that admits no ideal solution. It is an officially sanctioned monopoly. Offering the prospect of monopoly benefits, a patent is a powerful incentive to innovate.

But the patent system has a downside.

Patents successfully generate innovations while inhibiting their use. (p.34)

Lessig (2004)

In such an age, the real questions for law is not, how can law aid in that protection? but rather, is the protection too great? (p.173)

Fundamental reform of intellectual property right should be considered. For example, Scotchmer (2004) suggests:

Intellectual property should be designed to achieve the right balance of protection for innovators, protection for consumers, and opportunity for rivals to make improvements. (p.261)

Use and improvement of innovation by other companies is preferable for economic efficiency. A new type of intellectual property right that can help in protecting and sharing innovations more efficiently must be designed.

Scotchmer (2004) aims to find whether there are other mechanisms that are superior to the patent system. She examines targeted prizes, blue-sky prizes, and patent-buyouts. However, these mechanisms need more governmental effort than the current patent system.

Boldrin and Levine (2008) criticize intellectual monopoly and point out that there are many ways to profit from the first-mover advantage. I agree that monopoly is sometimes unnecessary when the first-mover advantage is strengthened by a new type of intellectual property right.

Weber (2004) points out that the open source process reframes the problem of free riding and property.

Open source turns what would have been called free riders into contributors to a collective good. (p.216)

Open source radically inverts this core notion of property. Property in open source is configured fundamentally around the rights to distribution, not the right to exclude. (p.228)

A new type of intellectual property right should be designed with reference to the mechanism of the open source process.

3. Promoting Service Innovations

Inventions of service are protected to a lesser degree by patents than are those of manufacturing. Patenting services often does not benefit the public, because the diffusion of the service is delayed. Today, adopting a pro-patent policy in service fields is difficult.

Business-method patents, a type of patent for invention of services, are usually issued when the technological aspect of business method is patentable and are not issued for business model itself. In Japan, method of service or business model itself is not protected by patent. Similarly, in the United States, patent eligibility of business model was denied recently in the Bilski case, and Parikh (2007) studies it in the tax strategy patents case. Furthermore, the Federal Trade Commission (FTC) (2003) points out that business-method patents involve the "patent thicket" problem.

However, in order to increase the incentive to invent innovative service and to increase investment in venture companies that introduce the innovative service, there should be some kind of intellectual property right that protects the organization that introduces the innovative service.

Inventions of service are usually market-pull ones. Since such inventions do not entail huge amounts of R&D costs, monopoly is not necessary. Instead, they merely need some kind of operational advantage. Hence, I suggest an intellectual property right for service that strengthens the first-mover advantage in order to protect and share inventions of service.

Figure 1 shows the rate of diffusion of innovative service in three cases. These cases differ in the level of protection they offer. In cases 2 and 3, the dotted line represents the total diffusion of an originator and the followers.

Case (1) Protection with right to exclude. In this case, only the originator can offer the service.

Case (2) No right. In this case, a follower can embody the same service and might surpass the originator.

Case (3) Protection with right that only strengthens the first-mover advantage. In this case, although a follower can embody the same service, the originator is able to maintain dominance for a certain period of time. This case is most desirable for the creation and efficient use of innovative services.

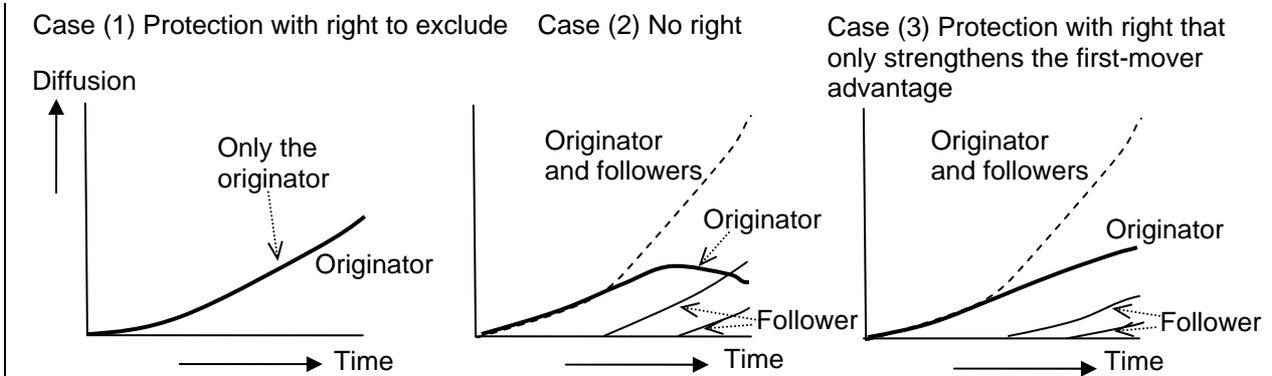


Figure 1: Three cases of protection of service

Intellectual property policy for service areas should exclude patent owners who do not use the patented invention, because licensing is inappropriate for the service industry. Instead, total support systems (e.g., franchising) are appropriate for the service industry. The exclusion will enable the elimination of patent trolls.

4. Proposal of a New Intellectual Property Right

I propose a new intellectual property right that I call “Originators’ right,” to protect innovative services and share them as commons. Although holders of the right will be able to neither monopolize the use of the inventions nor collect a license fee, the right gives inventors an effective incentive to invent innovative services.

The proposed right makes it obligatory for a follower that conflicts with the right of an originator to display the originator's name on the follower's brochure and Web page. Further, it obliges the follower to add a link to the originator's Web page from the follower's Web page.

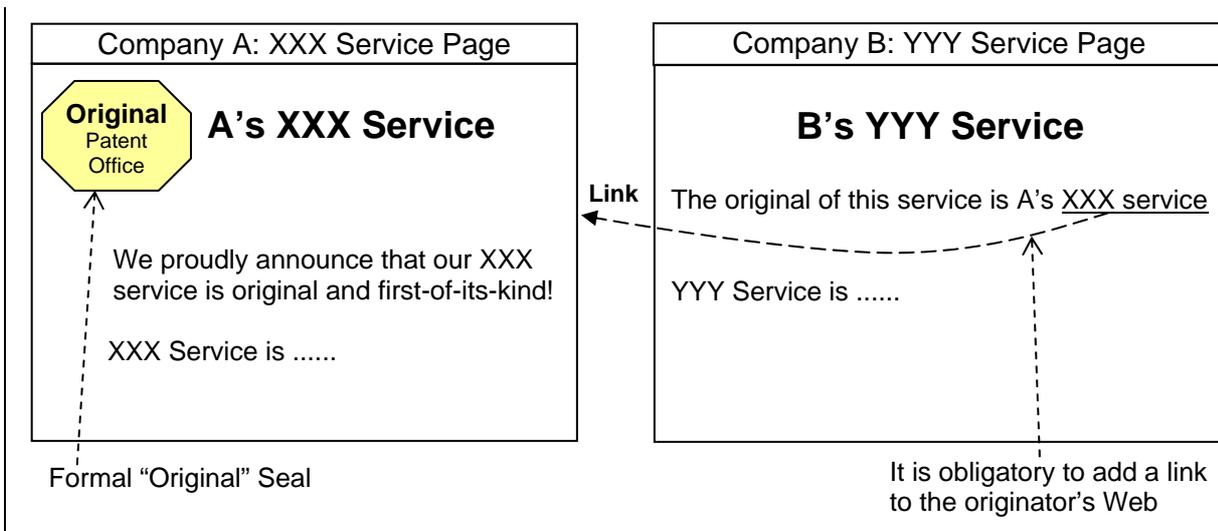


Figure 2: Examples of the Web pages of the originator and follower

Figure 2 shows an example of the Web pages of the originator and a follower, when the proposed right is enforced. As a result, some of the prospective customers of the follower will choose to switch to the originator. Today, Web page marketing is already widely practiced. Companies are eager to attract customers to their Web page using search engine optimization or pay-per-click search engine advertisement. Thus, making it obligatory for a follower to include a link to an originator's Web page could bring a certain level of incentive to the originator. This mechanism reduces search cost for an originator, whereby the originator can enjoy greater first-mover advantage. Transaction cost of follower decreases, as no license negotiation required.

The proposed intellectual property right does not allow monopoly business but gives a relative advantage to originators of innovative services. The right will give inventors a weaker incentive than the existing patent law. However, the right would turn a free rider into an advertising tower for the originator. Thus, the service of the originator would be protected, and the incentive to develop innovative services would increase.

The right complements the existing patent law. The right is granted only when the service is in business operation. Thus, the right strengthens the first-mover advantage of originators. The proposed right assesses non-obviousness based upon the business model as well as technological aspects and is granted when the originator's has an innovative business model and uses the technology at any stage of the process of invention.

The duration of the proposed right should be much shorter than that of a patent (e.g., six years). Applications of the invention should be published immediately after filing for patent. If a follower infringes the right (that is, if it does not provide a Web link to the originator's Web page), the originator can file a damages suit but can not file for the suspension of the follower's service.

5. Closing Remarks

The Internet is not only a subject of regulation but also a potential means of providing incentives. Hence, intellectual property law should use the Internet more effectively. The proposed intellectual property right is still only an abstract idea. However, it should be considered as an alternative to the existing patent system, because it could place inventions into the sphere of the commons, which is ideal for the creation and efficient use of inventions.

References

- Boldrin, M & Levine, D. K. (2008) *Against Intellectual Monopoly*, Cambridge University Press.
- Federal Trade Commission (FTC) (2003) "To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy."
- Lessig, L. (2006) *CODE Version 2.0*, Basic Books.
- McMillan, J. (2002) *Reinventing the Bazaar, A Natural History of Markets*, W W Norton & Co Inc.
- Parikh, A. (2007) "The Proliferation of Tax Strategy Patents: Has Patenting Gone Too Far?" *John Marshall Review of Intellectual Property Law*, **7**, 1.
- Scotchmer, S. (2004) *Innovation and incentives*, The MIT Press.
- Weber, S. (2004) *Success of Open Source*, Harvard University Press.

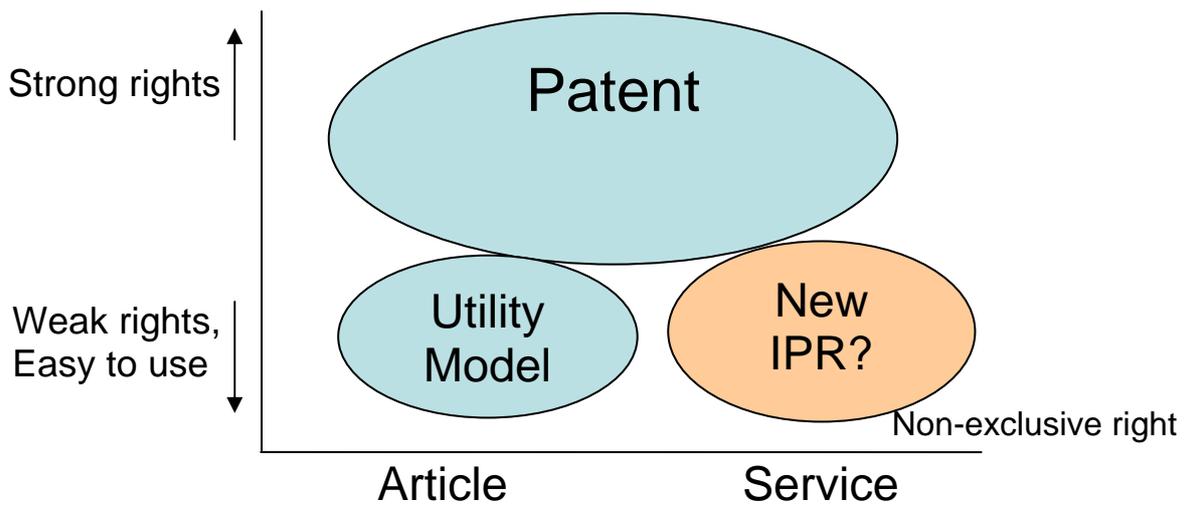


Figure 3. Positioning of new IPR (Originators' right)

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