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TRIPS and Software Patents in Japan

I. The October 2005 METI Study Group Interim Report

The Japanese Ministry of Economy, Trade and Industry has recently published the interim report of a study group on “legal protection for software and promotion of innovation”.¹ The study group is composed of academics and practitioners working for major software companies.

The study group welcomes comments to their interim results. This paper is one such short comment. It shall focus mainly on the TRIPS framework for this debate, building on an earlier paper about the influence TRIPS has on software patents legislation in Europe.² At the same time, I want to give people interested in the software patent debate who don't understand Japanese some access to this important discussion in Japan.

This interim report can be shortly summarized as discussing ways to limit detrimental effects from software patents to innovation, with a focus on assuring interoperability.

I think it is quite remarkable that shortly after the resounding defeat of the proposal to legalize software patents in Europe³ we see a serious discussion about reducing the effects of software patents in Japan.

¹ Sofutouea no hôteki hogo to inobehshyon no sokushin ni kansuru kenkyûkai, Chûkan ronten seiri no kôhyo ni tsuite, (Study Group on the Legal Protection of Software, Publication of Interim Discussion Points) October 2005, snipurl.com/ijj9.

² Lenz, TRIPS and European Software Patent Legislation, Aoyama Law Review Vol. 47, No. 1, 1.

³ Lenz, Their Boat was Bigger, July 2005, snipurl.com/ijjk.

Of course, the European victory for the freedom to innovate has been noted in the interim report,⁴ and might have had some impact on the discussion.

I am going to summarize the main findings of the interim report in the next section. Then I will discuss two questions on the relation to the TRIPS framework.

II. Overview of the Interim Report

The report starts out with an executive summary.⁵ In my translation:

“Software is structured in many layers, like operating system, middleware, and applications. Software on higher layers depends on software on lower layers. Therefore product development needs to use the functions of lower level software.

Also, software components work only by communicating with related software components (communication structure).

On the other side, if monopolistic structures advance to a certain level, there is a tendency for the users of the product dominating the market to act regardless of product quality and price, leading to lock-in.

The field of software has a layered structure, a communication structure, and a tendency to lock-in. In this field, granting of patents may lead to too strong monopolistic rights. Harming competition may easily lead to effects of braking innovation.

Therefore, while the majority of cases of exercising patent rights is in line with the essential meaning of the system, taking the above special characteristics into account we think that providing the environment for innovation in the software sector will lead to innovation with a real meaning.

The following legal measures come to mind for the near future. Make “Rules on Economic Transactions in the Market” that determine in which case exercising patent rights is a misuse of rights. For example, an exercise of patent rights that obstructs communication between software components,

⁴ See footnote 4 of the report.

⁵ Two unnumbered pages at the start of the report.

where the patent holder restricts transactions between third parties or exercises his patent right in a manner exceedingly contrary to public interest might qualify as “misuse of patent rights”.

As a reaction of industry an approach similar to Creative Commons might spread. The standard approach in industry should become a custom that as an agreement between private enterprises no one exercises patents in certain categories as open source software or interoperability.

As further points for study on the agenda the system of compulsory licensing and strengthening of antitrust countermeasures come to mind.”

The report then starts by pointing out why there is a need to discuss special limits on the use of software patents.⁶ The special characteristics of the field mentioned in the executive summary (layer and communication structure, lock-in tendency) are explained in some more detail. The report then notes some characteristics of the software industry.⁷

One, innovation in the sector is cumulative (*Bessen/Maskin*⁸ would rather call it “sequential”). Two, compared to other high tech industry sectors (for example pharmaceutical, biotechnology, and hardware sectors), the capital cost is low. Three, technological progress is fast and the product cycle short. Four, there are alternative ways of protection as copyright and open source software. Five, the protection by patents has evolved over time.

The report also gives a short overview of the evolution in Japan.⁹ In 1975, the patent office published the first guidelines, revised 1982, 1997 and 2000. The 2000 revision provided for patentability of programs as such. That revision was incorporated into the patent law in 2002.

The report next mentions in a few lines¹⁰ the 2004 “Innovate America” report¹¹ and the defeat of software inflation in the European Parliament this

⁶ Pages 2 and 3.

⁷ Page 2.

⁸ Bessen, James and Maskin, Eric, *Intellectual Property on the Internet. What’s Wrong with Conventional Wisdom*, (last revised 2004), researchoninnovation.org/iippap2.pdf; Bessen/Maskin, *Sequential Innovation, Patents, and Imitation*, 1999, www.researchoninnovation.org/patent.pdf.

⁹ Footnote 2.

¹⁰ Page 3.

¹¹ Council on Competitiveness, *Innovate America*, December 2004, snipurl.com/lbvr (via

year. It quotes in a translation from page 15 of the “Innovate America” report, which says that there is a need to strengthen open standards and interoperability in the IT field.¹²

The report then says that software patent rights need to be restricted and discusses ways to achieve such restriction.¹³

One way would be to work with the doctrine of patent misuse, restricting the exercise of patent rights on a case-by-case basis. Another would be compulsory licenses. A third way would be to restrict the exercise of software patent rights not on a case-by-case basis, but by providing for general standards of restrictions in the patent law. The first approach is favored for the time being.

The report lists¹⁴ the following five cases as potential “patent misuse”.

One. Requiring licensees to license a different patent in a package deal. Two. Requiring the licensee to transfer related patents acquired after obtaining the license to the licensor. Three. Prohibiting the licensee from suing for violations of the patent. Four. Prohibiting the licensee from asserting the invalidity of the patent. Five. Acts that damage interoperability. In that case, defendants should get an affirmative defense against the exercise of patent rights.

This “interoperability exception” seems to be the only case in the list of five potential patent misuses specific to the software sector. The other four could as well happen with a pharmaceutical patent. This means that this point is the main proposal at the present stage.

The way to go ahead with a “patent misuse” affirmative defense would be to apply Article 1 Paragraph 3 of the Japanese Civil Code, which prohibits abuse of rights as a general rule. The Ministry of Economy, Trade and Industry has a rule-making power regarding “Economic Transactions in the Market” and could use that power to provide a catalogue of prohibited forms

archive.org).

¹² See also the proposal on page 44 of the report: “Create best practices and processes for standards bodies to align incentives for collaborative standard setting, and to encourage broad participation.”

¹³ Pages 3 to 7.

¹⁴ Page 4.

of software patent exercise.

The advantage of this approach is that while it would result in a predictable standard, it would also enable a flexible approach on a case-by-case basis.

On the other hand, the definition of “interoperability” would need to be worked out clearly as a precondition of recognizing an affirmative defense. There is also a need for further debate about how far it is possible to give a clear standard for “patent misuse” by the rule-making process.

The report notes here that Article 40 TRIPS is relevant to the question of patent misuse in relation to licenses. I will discuss this briefly in a later section.

The report then notes the possibility of an approach similar to the Creative Commons¹⁵ project. Citing pledges by IBM and Nokia not to exercise their patents against Open Source projects, the report discusses the possibility of establishing the custom of not attacking Open Source or interoperability as an industry standard.

The report notes as an advantage that this needs no changes to the current patent law system. On the other hand, the report thinks that it is difficult that this solution could work against “intellectual property racketeers” (*chizai goro*), which is probably the Japanese word for “patent trolls”.

The report then discusses several other possible approaches like using compulsory licenses, strengthening antitrust enforcement or adding “interoperability” to the list of exceptions in Article 69 of the Japanese Patent law. It notes that the latter approach would need to discuss Articles 27 and 30 TRIPS. I will do exactly that below.

III. Short Evaluation

The report does not propose to do away with software patents altogether, but rather wants to introduce an “interoperability exception” and promote industry standards against software patent abuses. This is like the 2000

¹⁵ See the Creative Commons homepage at www.creativecommons.org.

Lutterbeck/Horns/Gehring paper, which also proposed to limit the effects of software patents by introducing a “source code privilege”,¹⁶ while painting software patents as such as an unavoidable reality.

In contrast, I think that software patents should be abolished completely, worldwide.¹⁷ Software is already protected by copyright. Software patents restrict the development of one particular protected software idea to people associated with the patent holder, which is the exact opposite of the new model of fast, secure and cheap development as open source. The history of the Internet as well as the early history of the computer industry in America clearly shows that software patents are not necessary for innovation. And accepting software patents leads to an explosion of the patent system, patent inflation without limits. There are almost no areas not affected by computers. The back door of software patents opens business models, financial services, education or even lawyers’ services to the patent system. That in turn will lead to a strong backlash by all those who were free before, with the danger of completely removing all support for the patent system as such.¹⁸

Japan has adopted a national strategy of strong intellectual property as economic basis for the country in the 21st Century.¹⁹ The 2002 Intellectual Property Basic Act²⁰ calls for measures that forward the creation, the protection and the use of intellectual property.

Removing all popular support for the patent system by granting absurd patents like the Amazon 1-click patent²¹ in all areas of society would seem to be incompatible with those goals.

While the study group does not go far enough in their proposals, I certainly welcome the direction of their report. All measures considered might help in reducing the damage.

¹⁶ Lutterbeck/Gehring/Horns, *Security in Information Technology and Patent Protection for Software Products, a Contradiction?*, 2000, snipurl.com/hm6y, 10.

¹⁷ Lenz, *Grenzen des Patentwesens*, 2002, snipurl.com/ldp7, 38-52.

¹⁸ See my book above and the “Patents” category on my blog (over 200 entries) at snipurl.com/ik5y for details on this position.

¹⁹ Heath, *Japan’s Anti-Trust and IP Policy in the Last Decade*, *Zeitschrift für Japanisches Recht* 15 (2003), 171, 196-198.

²⁰ Law No. 122/2002 of 4 December 2002. Lenz, *Japanese Basic IP Law (English Translation of the Law)*, <http://snipurl.com/ik5n>.

²¹ FFII, *One-Click Shopping*, snipurl.com/ik5u.

As to the question of effectiveness of collective defense shields against outsiders, one might note (as I have done in my book²² three years ago) the possibility to build a collective defense after the model of NATO.²³ Participants in a collective shield would promise to refrain from attacking other participants and to share the burden of defending against and counterattacking against patent trolls by all legal means they have at their disposition.

The main proposal of introducing an interoperability defense one way or the other is well in line with European law. The Directive on the legal protection of computer programs²⁴ recognized already in 1991 in Article 6 that interoperability is an important public interest that may override copyright to a certain extent. This Article gives the licensee the right to decompile programs as far as that is necessary to achieve interoperability.

In the same way as the 1991 Directive gives interoperability priority over copyright, the European Parliament adopted an amendment to the draft Directive on software patents in September 2003 that also would have excluded use of patents to prevent interoperability, giving priority to this public interest over the interest of patent right holders.²⁵ While the draft Directive ultimately failed in summer 2005, this amendment decision clearly is a precedent for introducing an interoperability defense.

Of course, the “interoperability defense” solution adopted by the European Parliament and proposed by the interim report needs to discuss the TRIPS agreement. I will proceed to do that now.

IV. TRIPS Agreement

1. Software as “field of technology”?

When discussing TRIPS in the context of software patents, the first

²² Lenz, *Grenzen des Patentwesens*, 2002, snipurl.com/ldp7, 99-100.

²³ North Atlantic Treaty Organization, www.nato.int.

²⁴ Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs, snipurl.com/lec7.

²⁵ See Wikipedia, *Directive on the patentability of computer-implemented inventions*, accessed January 9, 2006, snipurl.com/ledk; FFII, *Europarl 2003-09-24: Amended Software Patent Directive*, snipurl.com/ledw.

question that needs to be addressed is whether software is a “field of technology” under Article 27 Paragraph 1 TRIPS.

I have done this in detail last year.²⁶ Therefore I just present the result of that discussion here: There is no basis to assume that national legislations are bound by TRIPS to recognize software patents. This question is left to the TRIPS Member States to decide.

However, there is one additional reason to support this result I did not mention at the time. That is the principle of *in dubio mitius*.

This principle means that when in doubt the TRIPS treaty should be interpreted in a way that interferes less with the sovereignty of Member States. This principle is recognized in multiple decisions of the Appellate Board.²⁷ Leaving decisions about the area of software patents to the Member States instead of assuming that it is already decided by the TRIPS treaty is in line with this principle

The European Union has rejected in July 2005 by a broad majority in Parliament to introduce software patents.²⁸ The same is true of India, which has decided in March 2005 not to extend patent protection to software.²⁹ I am not aware of any request for consultations under TRIPS against these decisions. The place to look for this is the list of disputes related to patents at the WTO website.

2. Canada – Pharmaceutical Products

Looking this up, we find that in January 2006 the WTO website lists 11

²⁶ Lenz, TRIPS and European Software Patent Legislation, *Aoyama Law Review* Vol. 47, No. 1, 4-18.

²⁷ See Hilf, Meinhard and Oeter, Stefan, *WTO-Recht*, 2005, 120 ; Göttsche, Götz J., *Die Anwendung von Rechtsprinzipien in der Spruchpraxis der WTO-Rechtmittelinstanz*, 2004, 232 f.

²⁸ Wikipedia, Directive on the patentability of computer-implemented inventions, accessed January 9, 2006, snipurl.com/ledk; Lenz, Their Boat was Bigger, July 2005, snipurl.com/ijjk.

²⁹ Buchanan, Matthew, Promote the Progress Blog, “India” Archives, snipurl.com/leez; Free Software Foundation, India Press Release, permanent link at Clement, Bruce, Software Patents Blog, snipurl.com/ek10.

dispute resolution cases concerning patents.³⁰ None of these concern the software sector. Most cases are about pharmaceutical products.

Therefore, there is no precedent in the dispute resolution process on the question whether introducing an interoperability defense would be consistent with the obligations under the TRIPS agreement.

However, the case “Canada-Pharmaceuticals”³¹ comes close.

The European Communities complained in 1997 about two exceptions in Canadian patent law.

One exception is called the “regulatory exception”. It gives drug producers the right to use an invention for the purpose of applying to the government for marketing approval. The process of applying needs some time. The regulatory exception makes sure that competitors can get the necessary approval in time and are able to sell generic drugs immediately after the patent expires.

The other exception is called the “stockpiling exception”. Under this exception, competitors are allowed to produce a stockpile for the purpose of selling it once the patent expires.

The panel decision held that the “regulatory exception” was consistent with the TRIPS obligation, and the “stockpiling exception” was not.

The “stockpiling exception” failed the test under Article 30 TRIPS. The panel ruled that it was not a “limited” exception consistent with Article 30 TRIPS. In contrast, the “regulatory exception” was ruled to be not a substantial curtailment of patent rights and compatible with Article 30 TRIPS obligations.

That raised the question if the “regulatory exception” was inconsistent with Article 27, Paragraph 1, Sentence 2, which reads: “Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without

³⁰ WTO, Dispute settlement, Index of dispute issues, Patents, www.wto.org/english/tratop_e/dispu_e/dispu_subjects_index_e.htm#patents.

³¹ Canada – Patent Protection of Pharmaceutical Products. See WTO, dispute settlement, the disputes, DS 114, snipurl.com/cow. See also Matsushita, Mitsuo, *Kokusai Keizaiho* (International Economic Law), 3d edition 2001, 139.

discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.”

This prohibits “discrimination as to the field of technology”. The panel had to decide if such discrimination was also prohibited when legislating about exceptions (Article 30 TRIPS), and decided affirmative. Exceptions limited to only one field of technology violate Article 27.³²

If so, any attempt to introduce an exception like the “interoperability exception” that is by its nature limited to the field of software might be inconsistent with the obligations under the TRIPS agreement.

That means that recent American developments leading to technology-specific patent law³³ are in violation of TRIPS. It also makes the position of calling for patent regulation specifically tailored to the software sector problematic, like the recent proposals by *Burk* and *Lemley*.³⁴

In the Canada-Pharmaceutical products case the panel could not find any discrimination, since the “regulatory exception” was not restricted by law to the pharmaceutical sector and marketing approvals are necessary in various other sectors as well.

In contrast, with the “interoperability exception”, it might be difficult to see how it has any meaningful application in any other sector.

If so, the only way to introduce it anyway would be to argue that software is not a “field of technology” under Article 27 TRIPS in the first place. I already said that I have done exactly that in great detail last year.³⁵ If that position is correct, there can’t be any obligations for national legislators under Article 27 TRIPS.

There is no obligation to introduce software patents in the first place, as the rejection of the idea in the EU and in India shows.

There is also no obligation to refrain from sector-specific exceptions, if

³² Pages 170-172 of the panel report.

³³ Burk, Dan L. and Lemley, Mark A., *Is Patent Law Technology-Specific?*, 2002, snipurl.com/3l7r.

³⁴ Burk, Dan L. and Lemley, Mark A., *Designing Optimal Software Patents*, 2005, snipurl.com/el7w.

³⁵ Lenz, *TRIPS and European Software Patent Legislation*, *Aoyama Law Review* Vol. 47, No. 1, 4-18.

some Member State (like Japan) decides to extend patentability to software in the first place.

In other words: If Member States are free to dump the idea of software patents altogether, they are of course also free to give some lesser level of protection to software patents to deal with the most harmful effects of having software patents in the first place. The whole area of software patents is none of other TRIPS Member States business in the first place. Decisions about sector-specific exceptions are free under TRIPS.

3. Other Aspects of TRIPS

If on the other hand one assumes that software is a “field of technology” under Article 27 TRIPS, it would not make much of a meaningful difference in which way an “interoperability exception” was introduced. Using the existing provision in the Civil Code about abuse of rights and a rule-making procedure on the one hand and changing Article 69 of the Japanese patent law would lead to the same result. Patent holders would be unable to exercise patent rights wherever that would be incompatible with interoperability. The discussion about discrimination prohibited by Article 27 TRIPS in the “Canada-Pharmaceuticals” case³⁶ makes clear that *de jure* and *de facto* discrimination are prohibited in the same way.

And Article 40 TRIPS, which is also mentioned briefly in the report³⁷, will also not help introducing an interoperability exception.

This Article would permit to introduce antitrust rules regarding licenses like those proposed in the report. However, all those proposals are really not specific to the software sector. A prohibition in a license contract against challenging the validity of the patent might be patent misuse (this clause is prohibited under the 2004 European Technology Transfer Regulation³⁸), and

³⁶ Pages 172 to 175 of the panel report.

³⁷ Page 4, Footnote 5.

³⁸ Article 5, Paragraph 1 c) of Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81 (3) of the Treaty to categories of technology transfer agreements, snipurl.com/lgqv. This is however without prejudice to the possibility of providing for termination of the technology transfer agreement in the event that the licensee challenges the validity of one or more of the licensed intellectual property rights.

an antitrust rule against this kind of clause (like the European one) is consistent with TRIPS under Article 40. But exceptions like the interoperability exception proposed in the report can in no way be based on Article 40 TRIPS.

If contrary to my view one assumes that TRIPS prohibits Japan from introducing any exceptions specific to the software sector like the interoperability proposal, the question arises if private parties can rely on TRIPS in a lawsuit before Japanese courts.

In Europe this possibility is ruled out by decisions of the European Court of Justice.³⁹ In contrast, the situation in Japan is said to be less clear. According to *Taira*⁴⁰ there is no Japanese precedent yet on this question under WTO.

That means that a plaintiff might challenge the validity of a newly introduced “interoperability exception” restricting the scope of his software patent as not consistent with TRIPS obligations, even if no other TRIPS Member State challenges such legislation under the WTO dispute settlement understanding.

4. Result

The proposal of introducing an “interoperability exception” that is recommended in the December 2004 “Innovate America” report⁴¹ and adopted by the European Parliament in October 2003⁴² would be consistent with TRIPS obligations.

TRIPS Member States are under no obligation to introduce software patents in the first place. Therefore they are also free to introduce them with a lower level of protection, or reduce the level of protection compared to other

³⁹ See Judgment of the Court (Grand Chamber), 1 March 2005, in Case C-377/02, *Leon Van Parys NV v. Belgisch Interventie- en Restitutiebureau (BIRB)*, www.snipurl.com/el3p.

⁴⁰ Taira, Satoru, in: Nakagawa/Shimizu/Taira/Mamiya, *Kokusai Keizaihô* (International Economic Law), 2003, 88-91.

⁴¹ Council on Competitiveness, *Innovate America*, December 2004, snipurl.com/lbvr (via archive.org).

⁴² See footnote 25 above.

sectors by enacting sector-specific exceptions like an interoperability exception.