

The EuroLinux File on Software Patents

Learn in less than 15 minutes all you need to know about software patents in Europe

EuroLinux Alliance for a Free Information Infrastructure

www.eurolinux.org



Most documents referenced here can be printed easily from the EuroLinux web site

<http://petition.eurolinux.org/reference>

June 2000

v1.0

Economy

Recent theoretical and statistical studies based on dynamic models tend to prove that overly broad patents not only reduce competition but also reduce innovation in the software industry or in any industry which produces complex systems based on "sequential innovation" (Web, consulting, education, management, etc.). Principles such as "the more property, the more innovation" or "stronger patents promote innovative SMEs" are definitely wrong in the case of software.

Some kind of weak protection which allows partial imitation and prohibits at the same complete rip-off appears to be the optimal model to reach. Copyright, which prohibits copying but allows imitating functionality or technologies appears to be an optimum in the case of software. It is therefore not desirable to grant patents on software.

However, if such software patents are granted, it is desirable to reduce as much as possible the property rights granted to the patent owner in order to prevent blocking situations or market linkage effects. The "software useright" model achieves this goal by distinguishing two independent markets, a first market for the rights to copy software (but not to use it) and a second market for the rights to use software techniques. In this model, most undesirable effects of software patents tend to disappear.

Sequential Innovation, Patents and Imitation - James Bessen, Eric Maskin. MIT and Harvard.

This article introduces a dynamic model more suited to sequential innovation as it exists in such industries as software, micro-electronics. It shows that broad and strong patent policies tend to reduce innovation. A statistical analysis of innovation in the software industry tends to confirm this model.

<http://www.researchoninnovation.org/patent.pdf>

Software Useright, Solving Inconsistencies of Software Patents. Jean-Paul Smets.

This "all-in-one" article compares the economy of copyright and the economy of patents in the case of software with a layered approach (inventors, traders, publishers). It shows that software patents tend to promote industrial secrecy, which is inconsistent with their historical goal to promote knowledge sharing, and to eliminate innovative competitors, which is also inconsistent with their supposed economic effect. It also shows that it is possible to create a layered market for IP rights where patent licenses and copyright licenses are traded independently. This layered approach tends to eliminate blocking patents as well as obvious patents without any State intervention.

<http://www.smets.com/it/policy/useright/useright.pdf>

Software Patents Tangle the Web. Seth Shulman. Techreview. MIT's magazine of innovation

This article reminds that overly broad patents tend to stifle innovation in emerging industries and that it has never been the objective of patents to grant a monopoly for every shadow of shade of an idea.

<http://www.techreview.com/articles/ma00/shulman.htm>

Law

European Patent Law is defined by the Munich Convention, an international treaty (19 member states) independent of the Rome Treaty (15 member states). The Munich Convention (article 52) states that patents on computer programmes as such are illegal in Europe. Still, the European Patent Office (EPO) has granted more than 10,000 patents on "method or device which include programmes" where such method or device is actually a generic computer.

According to Law schools and Law textbooks, the EPO has circumvented and even abused the Law and the Munich Convention should be understood as prohibiting patents on software. The patents granted by the EPO may eventually have no value in case of dispute. Some experts claim that the TRIPS (WTO) agreements force Europe to grant patents on software and to remove the exception on computer programs. This argument is clearly wrong according to reputable patent experts themselves. On the other hand, granting patents on business methods or Internet patents, as the USA is doing, may be incompatible with the 1947 GATT treaty. And software patents raise many inconsistencies with the Rome Treaty.

Chairman's Open Remarks at the London Conference. Paul Hartnack, Comptroller General, The Patent Office

According to Paul Hartnack, "Some have argued that the TRIPS agreement requires us to grant patents for software because it says "patents shall be available for any inventions (...) in all field of technology, provided they are (...) capable of industrial application". However, it depends on how you interpret these words. Is a piece of pure software an invention? European law says it isn't. Is pure software technology? Many would say no. Is it capable of "industrial" application? Again, for much software many would say no. TRIPS is an argument for wider protection for software. But the decision to do so should be based on sound economic reasons. Would it be in the interests of European industry, and European consumers, to take this step?"

<http://www.patent.gov.uk/softpat/en/1000.html>

The FFII/Intevation CD-ROM & juridical analysis

The FFII, a german non profit association member of the EuroLinux Alliance, together with Intevation, a small german software company, has developed a CD-ROM containing a collection of juridical background articles on software patents (more than 500 pages) which gives many clues on how Law has been circumvented and abused in Europe. A short analysis is also provided. It shows that the Law has been circumvented in Europe by the European Patent Office with the help of patent experts and that there is no need to legalise software patents in Europe.

<http://swpat.ffii.org/penmi/bmwi-20000518/jinvi/eude/>

<http://swpat.ffii.org/vreji/doku/indexen.html>

Droit de l'Informatique. Lamy

Recent editions of this textbook explain that, according to the Munich Convention, pure computer programme can not be patented but that the EPO has developed various tricks to circumvent the Law. The patents resulting from these tricks may not be valid in case of dispute. Also, EPO rules are largely inconsistent, making a distinction between a relational database (technical) and a document database (non technical). A must read of humour, although in French.

<http://www.lamy.fr/store/product.asp?id=48&nav=affaires>

Software Patent Inconsistencies with the Rome Treaty and European Competition Law

This short article introduces potential contradictions of software patents with the Rome Treaty and European Competition Law. It discusses in particular contradictions between software patents and the interoperability principle of the 1991 directive on software..

<http://www.freepatents.org/law/rome.html>

WTO Challenge to Software Patents - John Bohn

This short article introduces provisions of the GATT which may be inconsistent with Internet patents.

<http://www.freepatents.org/law/wto.html>

European Policy & Agenda

A directive will be introduced shortly (summer 2000) by the European Commission (Directorate for Internal Market headed by Commissioner Bolkenstein and managed by John Mogg, one of the most prominent supporter of software patents at the European Commission). This directive will be discussed for at least a few months before it can be approved by the European Council of Ministers. Then it will be translated into national Laws.

Concurrently, an intergovernmental conference will happen in november 2000 to revise the Munich Convention. The EPO is likely going to ask for a rewrite of article 52 so that most exceptions will be removed and become subject to EPO rulings instead. This extreme position will generate a tough debate. In this debate, representatives of the European Commission will likely suggest that article 52 should just implement the TRIPS agreements and will likely suggest that inventions should be clearly defined as "technical solutions of technical problems", leaving away constraints on industrial application or specific exceptions. In that sense, it is likely that this debate will lead to similar positions on both side though each side will try to make some evidences in order to show it was the actual originator for this revision and the future responsible for patents in Europe.

Once the Munich Convention is revised, the Directive will likely be approved after december 2000. Meanwhile, discussions will progress at the World Intellectual Property Organisation (WIPO). Patents on business methods, education methods etc. will be granted more and more in the US and Japan. The EPO will likely start considering how to grant such patents in Europe, with the help of american multinationals that will probably suggest clever ways to consider a business method as the technical solution of a technical problem.

A Framework For Global Electronic Commerce, President William J. Clinton, Vice President Albert Gore, Jr.

In this article (1996), Al Gore explains that all countries in the World should adopt the US patent law in order to benefit from the growth of electronic commerce.

<http://www.iitf.doc.gov/eleccomm/ecommm.htm>

Greenbook on the Community Patent and the Patent System in Europe

This is the document which started it all. It was released in 1997.

http://europa.eu.int/comm/internal_market/en/intprop/indprop/558.htm

London Conference

This is the conference which started the EC lobbying. The presentation by John Mogg, Director General (DG XV – EC), is one of the most interesting piece of ideology. This presentation claims that software patents have absolutely no negative effects. (hopefully, Al Gore will send flowers to John Mogg).

<http://www.patent.gov.uk/softpat/en/index.html>

<http://www.patent.gov.uk/softpat/en/1030.html>

Follow-up Paper to the Greenpaper

In this document, the European Commission confirms that there will be software patents. We also recommend the original French version which includes a sentence explaining that "software patents had a great effect on innovation" and that Microsoft is a good example of software patent holder.

http://europa.eu.int/comm/internal_market/en/intprop/indprop/99.htm

<http://www.freepatents.org/agree/images/pat2.png>

Amended proposal for a Directive on the protection of inventions by utility model

This directive on utility models (i.e. short time patents) does not include any exception for computer programmes, thus allowing them. It has not been voted yet.

http://europa.eu.int/comm/internal_market/en/intprop/indprop/utility.htm

Intellectual Property Law in a Global Economy, the Hidden Agenda of the European Commission. JP. Smets

This article, based on numerous references and verified information, gives evidences of the strictly ideological point of view of the European Commission and the influence of US on the European Agenda.

<http://www.freepatents.org/law/agenda.pdf>

Patent Office

Patent Offices are a very important actor in the patent business. Most evolution in patent Law start from evolution in the internal rules of Patent Offices. And the economic game which results from patents much depends on the ability of patent offices to check the existence of prior art and to reject patents on obvious inventions.

Reality shows that Patent Office are unable to check the existence of prior art in the case of software patents or to reject obvious inventions. 90% software patents granted by the US Patent Office (USPTO) could eventually be busted because of the existence of prior art. Similar proportions were found in Europe. This creates a corrupted system where holders of invalid patents can easily threaten their competitors because the smaller ones can not face the cost of a lawsuit.

Some people, such as Greg Aharonian, believe that patent offices should do their job more carefully and that doing this only would solve the issues raised by software patents. This point of view seems to be taken in consideration, at least in formally, in the US: the USPTO has started a study to determine how to improve its reviewing process.

However, no one has ever proposed a viable system to improve the reviewing process in the case of software patents. Also, there is currently no economic incentive for the European Patent Office to reject more patents because rejecting a patent costs a lot of money while granting it creates revenue. There is even less incentives for patent examiners to reject patents since most patents are filed by companies which may actually become their next employer.

Unless a viable, self-regulated, approach can be implemented, it is very unlikely that patent offices are going to reject obvious software patents or check properly the existence of prior art.

Patent examination system is intellectually corrupt. Gregory Aharonian

This article includes detailed statistics on patent examination procedure and shows that 90% software patents granted by patent offices are not valid.

<http://www.bustpatents.com/corrupt.htm>

The FFII printable documents collection

This page gives a summary of the most important rules set by the EPO on software patents. It comes with a large set of examples of software patents and essential reference texts.

<http://swpat.ffii.org/vreji/prina/indexen.html>

Patent Nonsense. The Economist. April 8, 2000.

This article includes evidences on the fact that patent examiners tend to be paid to grant patents rather than to reject them which tends to generate a lot of abusive patents.

<http://www.economist.com/>

Lobbying

The most active lobbying group in favour of software patents are the IP experts. Such IP experts work at IP offices, at Law offices, at IP divisions of multinational companies, in Patent Offices or at the General Directorate for Internal Market (European Commission). They form a strong alliance and benefit from US moral support through the World Industrial Property Organisation for example.

The most active lobbying group against software patents is the Open Source Community, because software patents turn original software developed by individuals into potential patent infringements thus reducing the possibility to publish original software on the Internet. In Europe, this community has created an alliance with small software publishers.

EuroLinux

This is the web site of the EuroLinux Alliance. This Alliance has two goals: promote European Linux Software Industry and co-ordinate the resistance to software patents.

<http://www.eurolinux.org>

Freepatents

This web site collects information and news on software patents in Europe. Mainly in English.

<http://www.freepatents.org>

SWPAT-FFII

This web site also collects information and news on software patents in Europe. Mainly in German.

<http://swpat.ffii.org/>

Breese & Marcovitz

This IP attorney shop in France is a typical example of active promoter of software patents in Europe. A significant part of their literature is devoted to attacking open source & free software (although their web site uses free software).

<http://www.breese.fr/guide/htm/Logiciel/main.htm#hautdepage>

Examples

Software patents range from very technical ones to patents on pure social methods. Current constraints in the European Patent Law make it very difficult to patent anything but "machines which include software, have a technical effect and industrial application". This leaves out of the game Internet Patents (except for payment device) and patents on education methods.

However, if software became patentable, it would become very easy to get patents on internet methods, education methods, consulting methods etc. through a clever formulation of the patent application which encapsulates such methods into software techniques. No doubt the EPO will just let such patents circumvent the Law just as it did with software.

Patents on Software Techniques

A few examples of US patents on obvious techniques such as "XOR", "using null instructions to slow down a process" or "making corrections to a document using two additional different colors".

<http://www.base.com/software-patents/examples.html>

Internet Patents

A few examples of USPTO/EPO patents on obvious methods such as "one-click", "internet auctions", "business referral", "web database publication", "fork & ping" or "internet caching for WAP".

<http://www.freepatents.org/examples/>

Patents on Education Methods

A few examples of patents on mostly obvious education methods which would require schools to pay patent licenses to multinational companies in order to implement certain education practices based on computers.

<http://www.freepatents.org/examples/education.html>

The FFII printable documents collection

This page includes a large collection of EPO software patents.

<http://swpat.ffii.org/vreji/prina/indexen.html>

IT Industry Statements

Most of the following statements come from reputable European IT industry managers.

10 European Industry Leaders Raise Concerns about Software Patents

In June 1999, 10 industry leaders including the inventors of the Web, of Push Technology, creators of leading database software, e-commerce software, etc. warned governments on the dangers of software patents.

<http://www.eurolinux.org/pr/pr1.html>

Consensus of German SMEs against software patents at the Ministry of Economy

Representatives of successful German software publishing companies such as Intradat AG, Phaidros AG, Infomatec AG and SuSE Linux AG as well as other smaller German software companies clearly expressed their opposition to the extension of the patent system to the realm of informational goods.

<http://swpat.ffii.org/penmi/bmwi-20000518/indexen.html>

EuroLinux-DG XV Meeting Summary

A delegation of European software publishers and software associations met M. Nooteboom, M. Mueller and M. Ravillart at the European Commission (DG XV). This delegation explained it would never accept patents on information (software is a kind of information) due to their many inconsistencies and negative economic effects. The delegation also considered as tolerable to patent the use in a physical device of a given technical computing technique.

<http://eurolinux.ffii.org/news/euipCAen.html>

The FFII printable documents collection

A large collection of letters and statements from software publishers in Europe and in the US. Includes statements against abuses of software patents from: Adobe, Oracle, Borland, Linux Verband, SuSE, LiVE, Intradat, etc.

<http://swpat.ffii.org/vreji/prina/indexen.html>

Artefacts

The concept of "software patent" fails under certain circumstances for the same reasons as the reasons which make thoughts or social behaviours morally difficult to patent.

Thanks to "artificial life" technology, some computer methods or techniques can be invented by computers with no human interaction. Users for example specify a functionality, such as adding two numbers, and computers will generate an algorithm which allows to add two numbers (this experiment has been successfully at ATR labs in Kyoto). This generated algorithm is invented by virtual agents growing in a massively parallel calculator. It has all the characteristics of an invention. It can be described, reproduced, etc. Who does it belong to then, to the man or the machine? And, in the case a computer invents some kind of technique at run time, no human beings will ever check or try to understand the fundamental principles of this invention, thus making patent infringement impossible to prove for exactly the same reason as it impossible to read in someone's mind.

A similar problem happens on the Internet. It is possible to patent, as a business method or as a technique, a combination of existing services on the Internet. One may then wonder whether the use in combination of various Internet services, something everyone does everyday, may be sometimes a patent infringement. And in case it is, who will ever be able to prove it? And, does it change something if this use is achieved by a human operator or by a software written in house to automate what human operators do?

Artificial Life Workshop at ATR, Kansai Japan

This Kahaner report (Dr. Kahaner used be paid by the US Army to travel in Japan and write nice public reports on Japanese R&D. Such reports mostly contain valuable information and, sometimes, also contain misleading information) includes a short presentation of Artificial Life experiments in which computers invent new things.

<http://www.atip.or.jp/ATIP/public/atip.reports.93/al.93.html>

Surviving a War with Patents. Kevin G. Rivette

This article, written by a patent attorney, is much in favour of software patents, includes many examples and, at the end, shows that networking Internet services may generate contributory patent infringements which can not be detected.

<http://www.upside.com/taxis/mvm/opinion/story?id=382b10570>