

# Implication of TRIPS on Software Patent: A Misnomer

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## **Abstract:**

The purpose of patents is to protect the innovator against wrongful exploitation by others of his or her innovation. But when it comes to software, patents unfortunately have the opposite effect. Innovation is stifled and the only ones to gain from the system in the long run are patent profiteers, that is, companies with no innovation who acquire software patents with the sole purpose of extracting royalty payments from the true innovators. On the losing side are large and small software companies with products under closed source and open source licenses. This paper aims to throw light on the issues related with software patent under TRIPS agreement. The US, Canada, European Countries and India shows that there are variations in approaches towards patentability of software. This paper explains the idea that how diverse approaches are creating differences in opinions about patenting of software, thereby leading to software patent war. The question of software patents and its patentability in the case of *Alice Corporation v CLS Bank International* remained unanswered in so many questions. The Court emphasised on the fact that the existence of free software itself is a strong argument against the granting of software patents. Mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. This paper is based on the present position of software patent national as well as international. Although few areas like free and open source software is a research topic, the particular effects of patenting on its innovation have not yet been investigated systematically. This paper offer an attempt to understand the status of patent law and practice relating to computer related inventions.

**IndexTerms - Software, Patent, Article 27, Free and Open Source Software, Innovation**

## **I. INTRODUCTION**

*The dialectic of intellectual property rights is driven by the interaction of three conceptions; a pragmatic or economic point of view, a view that focuses on the property rights of creators, and a view that focuses on the circumscribed nature of ideas and the inherently communal nature of the creative process. The first point of view is the typical ideology of legislators, the second that of authors and publishers, and the third that of 'users'.*"

Mitchell 2005

[1]

Dozens of news articles about Microsoft and patent trolls are currently googlebombing, [2] distracting from Microsoft as the patent troll or a 'puppet master' of trolls such as Intellectual Ventures. What Microsoft basically doing is, use *only* their services and pay them every month for using Free/Open Source software (that did not even develop) then only enjoy "IP Peace of Mind" or else Microsoft and their patent trolls will sue with software patents. In other word it is called terror tactics or mafia tactics? Software patents are the most potent threat to Free and open software. It is the strategy of Microsoft to divide and conquer "Free and Open software" from "Software patent"; this division is based on "safe" and "unsafe" use of software (means litigation over patents). It's the classic modus operandi that goes along the lines of, "pay us, or terrible things will happen." [ 3]

The software patent debate is much more as a matter of public policy; Policy debate on software patents has been active for years. The opponents to software patents have gained more visibility than their pro-patent opponents. Arguments and critiques have been focused mostly on the economic consequences of software patents. In the beginning, all software was open source and freely shared because it was not considered of value on its own. [4] Users were programmers and software was simply considered an "instruction manual" to use mainframe computers. Software was shared and built upon and developers were paid for programming work. In the 1960s, the industry was still whole, not separated into hard and software. Customers bought complete packages consisting of hardware, software, and support. Pressured by the U.S. Department of Justice for antitrust reasons, IBM [5] decided in 1969 to separate the soft and hardware business. This decision established the notion of software as a product on its own, known as proprietary software [6] and permitted a software market to emerge in the 1970s. [7]

Software can be divided in different groups like commercial, shareware, freeware and public domain software and it can be protected with different laws according to their industrial application. Commercial software is protected through copyright and a user needs to buy the software. Shareware software is available at cheaper rates. This software is free for test and trial. Freeware software is free for use and for making copies. In case of commercial, shareware and freeware software no one can change the code of the software or use in another programme without the permission of copyright holder. Public domain software is not copyrighted and can be used without any restriction. It can be copied and used in another programme. [8]

Software is more or less connected to mathematical methods, algorithm and can be categorized into software with specific hardware, systems software and application software. Thus, traditionally software can be protected as copyright but with the growth of industry and advance application it can also be protected under patent system. The dividing line between the copyright and patent is very thin in case of software and computer implemented invention: [9]

“Free software” and “open source software”[10] are two terms for the same thing, means software released under licenses that guarantee a certain specific set of freedoms. Like the Free software (FSF), the open source software (OSI's) founders supported the development and distribution of free software, but they disagreed with the FSF about how to promote it, believing that software freedom was primarily a practical issue rather than an ideological one.[11]

Software “free” means that it respects the user’s essential freedoms, the freedom to run it, to study and change it, and to redistribute copies with or without changes. This is a matter of freedom, not price. [12] These freedoms are vitally important. They are essential, not just for the individual user’s sake, but for society as a whole because they promote social solidarity that is, sharing and cooperation. They become even more important as our culture and life activities are increasingly digitized. [13]

It is interesting to know how arbitrary the choice of legal protection for software appears when looks at its history. It indicates that software is a difficult-to-seize subject for law. As a subject matter software stands out as one of the tool of different types of Intellectual Property protection. [14]

## 1. Controversy on software patent under TRIPs agreement

*Patent shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application'*

*Art. 27of TRIPs agreement*

The issue of patentability and its exclusion is a controversial issue in case of determining patentability of advance technological patents-[15]

1) The patent protection is available for all inventions and patent rights can be enjoyed without discrimination on the basis of the fields of technology. It does not define the exact meaning of the term ‘invention’. However, it mentions about patentable criteria such as novelty, inventive step and industrial application.[16]

2) Members to define their own invention and its industrial application. It is nowhere mentioned that the computer programme or software should be excluded from patentable subject matter. Apart from this, computer software is mainly protected by the source code and object code shall be protected as literary work under Berne Convention 1971.[17]

3) It is difficult to protect computer software under copyright protection because of basic difference between the software and traditional literary work. The copyright protection to software is opposed because of the behavior code dichotomy.[18]

Thus, till today, the question regarding patent protection for pure software or for its technical application or physical manifestation remains unanswered. Different countries determine their own laws and guidelines for protection of such kind of software related inventions. [19]

### 1.1 Position of Software Patents in U.S.A. and European Union

USA is driven by case law and changing practice of the U.S. Patent and Trade Office (USPTO) in the ‘80s, software and business methods have become patentable subject matters under U.S. jurisdiction. As a result, the number of related U.S. patents has increased significantly. In the United States, as computer programs can be protected by both copyright and patent protection, Congress and the Supreme Court blurred the distinction traditionally made in the protection of computer related inventions. There are three implicit exceptions to patent eligibility – laws of nature, physical phenomena, and abstract ideas. Considering protection to software or computer implemented invention, there is always a debate between the expression of software in terms of idea or form of expressing the idea. To make distinction between ideas and expressions in computer programs, a program which would not be patentable could, however, quite easily be copyrightable. [20] The converse is possible but rare. In other words it can be said that to assess the patentability of the invention look at the invention as a whole. [21]

European Commission’s initiative for the Computer- Implemented Inventions Directive [22] is a positive step in minimizing the confusion. To get patent, a separate application has to be filed in the particular country. The patent is granted by that country based on the patent law of the country. In case of software patent, it always becomes problematic as software is considered as a non-patentable subject matter in most of the countries. The US started granting patent to software but this is not the case in European Patent Office (EPO) and other countries. Thus, it can be said that the patentability of invention can be determined by the national law of the applicant. [23,24]

### 1.2 Position of Software Patents in India

The question of software patents and its patentability was discussed in June, 2014 by the Supreme Court of USA in the case of *Alice corporation v.CLS Bank International*. [25] It is observed that in the issues of Software patent there is greater ambivalence in the law and practice of granting patent to computer inventions. The Court rejected the patent on a computer implemented scheme. The question of law was whether claims to computer implemented inventions including claims to systems and machines, processes, and items of manufacture are directed to patent-eligible subject matter.[26]

While considering the patentability of computer implemented invention the court discussed the patent eligibility of the invention. The Court emphasized on the fact that the use of generic computer implementation is not an additional feature and thus the invention is not patentable. The Court rejected the patent for use of generic computer; it again failed to provide specific answers to abstract idea. Technical improvement in the functioning of the computer is one of the criteria for determination, but how to determine the technical improvement is a new question. If the computer is used to calculate complex calculations which are not easily possible with calculators, and thereby improves the functionality of computer, then whether such invention is patentable subject matter or can it be considered as mere use of computer as a generic device. Whether only hardware improvements in computer are patentable? What about improvements in the software? Thus so many questions remain unanswered, Courts are trying to find out solutions in the background of changing technology, approaches and opinions. [27]

In India, the Patent Amendment Act 2005 sought to introduce software patents. Many cases tried to solve the issue of abstractness of the software invention by formulating various testes to determine the patentability of computer related invention. But till today there is no confirmed test, rules, procedures or judgments which can determine its patent eligibility. [28]

The Supreme Court of India discussed about inventive step and obviousness of the invention. The Court held that the fundamental principle of Patent Law is that a patent is granted only for an invention which is new and useful. That is to say, it must have novelty and utility. It is essential for the validity of a patent that it must be the inventor's own discovery as opposed to mere verification of what was, already known before the date of the patent. [29]The question of 'inventive steps' involve mixed questions of law and facts, and it has to be decided mainly on the facts of the case. The Intellectual Property Appellate Board (IPAB) of India revoked the granted patents [30] stating that it is lacking inventive step and all the claims and specification are based on the known inventions. The board stated that in this invention, prior arts have the features of the invention and there is nothing new in the features that have been claimed as new. The invention was already known and there is neither any novelty nor any inventive step. [31] Intellectual Property Appellate Board mentioned the invention containing cannot be treated as computer program per se or a set of rules of procedure like algorithms and thus is not objectionable from the point of view of patentability. [32,33] In that case, even though the Court rejected the patent, it did not define the clear meaning of abstract idea, which leaves the door open for software patent. [34]

Software patent protects idea and it cannot be used only with the permission of patent holder. it protects the inventor as against the copier. On the other side, the copyright law protects only the form of expressed ideas not ideas. Software patent provides incentives in terms of royalty; licensing fee etc. it is very beneficial for small and medium enterprises because it increases bargaining capacities of companies.

There are different other views against Software patent that it can be protected by copyright as a form of expression. The software has shown lifecycle if its patent is granted, the software tends to become obsolete or outdated. Software patent control over the further improvements by protection it for longer term thus, sometimes becomes hurdle in innovation. as a result, rise of bad patents becomes patent troll.

## Conclusion

Ability of converting knowledge into wealth and social good through the process of innovation determine future of a nation. Knowledge is an inevitable part of economy of the 21<sup>st</sup> century and innovation is a key to hold this economy. After TRIPS Agreement was implemented, issues of generation, valuation, protection, prosecution, defense and exploitation of intellectual property have become critically important all around the world. With change in technology, there is a need to maintain a balance between the law and technology in order to provide competitive market and growth in innovation. Innovation has become a keyword in all kinds of industries. The Government of India, through its 'Make in India' campaign, is further promoting innovation in Indian industries. The speed of innovation in the fields of computer software, telecommunications and internet based services in last ten years has been increasing at a fast pace. Though issue of software patent was discussed and decided by the US Supreme Court in *Alice Corporation Pty. Ltd. v CLS Bank International* it has again failed to answer the question as to how to determine an abstract idea. Abstract idea can be explained in a patent application in terms of words, phrase or by formula. A mere abstract idea is not patentable. However something more added to abstract idea which gives it some significant technical effect may be considered as patentable subject matter. The data relating to number of patent applications filed and granted in the field of computer technology in countries like the US, Canada, European Countries and India shows that there are variations in approaches towards patentability of software. Diverse approaches are creating differences in opinions about patenting of software, thereby leading to software patent war. The current patent war in software industry has created issues of protection of technology, enforcement and growth of the industry. India is one of the fastest growing economies among China, Brazil, Russia, South Africa and Mexico. It is expected to be the third largest economy of the world after US and China by 2035. Thus, in comparison to the world scenario and current developments in patenting of software and computer technology, India has to rethink on its policies. Thus it can be said that, Patent law is an area which is not internationally homogenized. Different countries have different laws regarding what can be patented and which laws apply. A software patent in particular is a shaky area which is handled differently in different jurisdictions. This can lead to the situation that a certain piece of free software is only free in some parts of the world and not in others, violating the right to free distribution without discrimination of certain groups.

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5. Microsoft was created in 1975, Apple in 1976. IBM entered the market for personal computers in 1981.
6. Proprietary software is software that is owned by an individual or a company (usually the one that developed it). There are almost always major restrictions on its use, and its source code is almost always kept secret. The most commonly used license, the GNU Public License (GPL), additionally requires that if a modified version of the software is distributed, the source code for such modified version must be made freely available. The best known example of software licensed under the GPL is Linux.
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14. Id.
15. TRIPs Art. 27.1., " Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. 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 discrimination as to the place of invention, the field of technology and whether products are imported or locally produced."
16. TRIPs Art. 27.2 and 27.3, (2) "Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect public order or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law." (3) "Members may also exclude from patentability"
17. TRIPs Art. 10., "(1) "Computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention (1971)."
18. (2) "Compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such. Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself."
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  26. *Alice Corporation Pty. Ltd. v Cls Bank International et al.*573 (U.S)\_(2014). This all started back in 2010 with a case called *Bilski v. Kappos*.561 (U. S) 9 (2010). In this case, the Supreme Court confirmed that software patents are eligible for patent protection. Again the same issue came up before the US Supreme Court in the year 2014 and in *Alice Corporation Pty. Ltd.*
  27. 35 of the United States Code (35 U.S.C. § 101Title) is a title of United States Code regarding patent law. The sections of Title 35 govern all aspects of patent law in the United State. “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”
  28. *Id.*
  29. *Parker v. Flook*, 437 U.S. 584, *Gottschalk v. Benson*, 409 U.S. 63, the Court ruled that Pure mathematical expressions had been held to be unpatentable. Thus so many questions remain unanswered, even after *Flook*, *Benson* to *Alice*
  30. *Bishwanath Prasad Radhey Shyam v Hindustan Metal Industries* SC 1444- 1448.
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