# THE CONCEPT OF SOFTWARE PATENTING IN INDIA & THE WORLD

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## Abstract

India like European Union does not permit patents for innovations identified with programming. Even when only some years ago in 2004-2005, The Government of India presented an ordinance to be passed which would make all inventions relating to software used in computers like desktop, cell phones, television sets etc. along with the ones having industrial application as covered by the meaning of "patentable invention" via amendment of the section 3 clause (k) given in chapter II of Indian Patent Act, 1970. This ordinance could not go through because of serious reservations and protests of the opposition.

India appears to have pursued the more moderate methodology of the Europeans while protecting standards for programming. Be that as it may, the Ordinance unquestionably has its utilization and pertinence in today's India, especially for our developing household semi-conductor industry. This, alongside legal treating may guarantee a sensible utilization of patent insurance while permitting the business to develop through advancements and creations, consequently, relieving the dangers of insignificant licenses chocking the life out of genuine advancements and innovations. This is the reason a patent ought to dependably be dealt with as a "double edged sword", to be wielded with alert and affectability. Presently whether, in actuality this will be actualized on an unbending premise or will get to be expansive in degree through application, all the more essentially, whether the Ordinance would, truth be told, result in expanded advancement and innovations in the product business, stays to be seen.

By the means of this article, we aim to discuss and study the current scenario with respect to software patents and any changes that need to be brought in this area of IPR.

# Introduction

There has not been provided any exact definition for the expression "software" and even the industrial software ventures cannot provide a particular definition. In any case, it is fundamentally used to depict the greater part of the distinctive sorts of computer projects. Computer projects are fundamentally segregated into "application programs" and "operating system programs".

Application programs are intended for particular undertakings to be executed through the computer and the operating system programs are utilized to deal with the interior elements of the computer to encourage utilization of application program. Even while discounting the general notion that the phrase or expression 'Software patent' has not been uniformly defined anywhere by anybody in this world, one of the definitions that stands out as provided to us by Foundation for a Free Information Infrastructure is that a software patent can be referred as a "patent on any execution of a computer acknowledged by method for a computer program". According to Stallman, who has co-designed the GNULinux application system and who has advocated for Free Software, Software patents can be termed as those patents which include all types of software thoughts and notions, of which any individual will make use of while creating software. Therefore, generally Software patents allude to patents that are given to products and production methodologies which incorporate or might incorporate software as a noteworthy or if nothing else important piece of their execution, i.e. the structure in which they are placed by and by (or utilized) to create the impact they plan to give to user[1].

"Patent" gets its heredity from the expression 'Letter Patent'[2]The specific expression i.e. 'Letter Patent' which is a sort of a public statement was an instrument at the time of the Great Seal of King of England alluded by the British royalty to every one of their subjects everywhere in which the British royalty gave certain powers and benefits on one or more people in the empire. Just prior to beginning of the 20th century, the empire witnessed new developments in the field of workmanship, procedure, strategy or way of production, hardware and different items created by producers were on the rise and the innovators turned out to be all that much intrigued

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[1] Richard Stallman, Definition of Free Software,
http://searchenterpriselinux.techtarget.com/definition/freesoftware

[2] Letter Patent, The Law Dictionary, http://thelawdictionary.org/letterspatent/

by the fear that, creations made by themselves ought not be encroached by any other individual by either adopting or stealing their original work, so as to replicate them or the techniques utilized by them.

To save this right of innovators on their indigenous production, the then British rule was forced to come up with a legislation that was known as The Indian Patents and Designs Act in the year 1911. Coming towards the patentability of software or innovations that are similar to software, it is one of the hottest topics of discussion and the debates regarding it are raging topics of the legislative and administrative circles alike. In the past few decades Software Patents have also started to be patented as off late in many jurisdictions including in nations who are signatory to the European Patent Convention or EPC which is traditionally known for strict patent laws. Therefore, the quantum of software patents being given out has risen by a huge margin in recent years.

The IT industry in India has made massive progress in the decade gone by in terms of launching enterprising IT organizations and initiation of some other institutions related to the field of IT. In the initial stages involving startup of the IT business, needs to concentrate on offering best possible service to clients. In any case, unavoidably, some of these companies began developing software products. Companies involved in the creation of software related items are keen on innovating so as to provide exceptional items to their clients and thereby counter their competition, thus yearning to secure such innovations through patents and keep up high ground.

In some countries around the world, patent laws are being laid down that enable protection of software innovation USA, Australia, South Korea and Japan are few of the countries that fall into the aforementioned bracket. Regardless, some countries still have not openly accepted the concept of software patenting, which include India and European nations, where there are a lot more stringent laws concerning licenses on software innovation.

Indian Patent Act provides patent protection for all products and/or processes up to the extent that they are not included under the bracket of non-patentable subject matter. Section 3 along with Section 4 of the Indian Patent Act of 1970 specifically mentions a series of subject matter

that cannot be patented. In that regard, Section 3(k) of the Indian Patent Act, 1970 is of special relevance to the entire concept software innovation in India[3].

Indian Patent Act provides protection through patenting of products or method as far as possible unless, they don't fall under category of subject matter that is non-patentable. Sections 3 & 4 of the Indian Patent Act, 1970 state all those topics that cannot be patented in India. Section 3(k) of the Indian Patent Act, is of particular significance to software innovation. Novices in this field have a common misconception regarding the aforementioned section and often believe that no software innovation can be patented in India. In any case, the fact of the matter is a long way from such discernments.

In the first place the patent office via its Manual of Patent office Practice and Procedure (MPPP) offers some level of clarity on things to be considered in addition to what sort of software innovations will be considered as "computer program per se" and thus will not be considered as non-patentable along with all kinds software developments which won't fall under section 3(k) has also been specified by it.

Hereby, one thing has been made absolutely sure by the incorporation of such clarification through the MPPP, i.e. each and every invention or innovation that is achieved with respect to a product, will not be covered by the ambit of section 3(k) of Patents Act, 1970. Therefore, a vast number of software innovations can be patented even in India, contrary to general belief. Now, even when we know that a large number of software innovations can be patented in India, it is crucial to keep in mind that each and every application seeking a patent for software innovations is evaluated at the very first instance by the patent office as per provisions of Section 3(k) of the Patents Act, 1970.

In any case, if the application for obtaining a patent is created insightfully by meticulous understanding of the patenting structure in India, it is possible to effectively protect your software innovations. One of the most crucial points for effectively obtaining a patent for software protection lies in the ability to portray an individual's innovation in such a way that the development, which the individual wants to get patented, does not include a topic that is covered as a computer program. In addition to this, any subject matter that is "not just a

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[3] Section 3(k), Indian Patent Act, 1970

computer project" needs to be delinquently churned as a crucial portion of the creation, without trading off on the extent of protection.

Despite the fact that in India, a legislative bill to incorporate software licenses was suppressed by the Indian Parliament in April 2005, a few other nations across the world such as U.S., Japan, Canada and now South Korea have gradually allowed for patentability of software as the way to go forward. A more diplomatic stance has been adopted by the members of European Union and the United Kingdom where Computer actualized developments which just take care of a business issue utilizing a computer, as opposed to a specialized issue, are considered non-patentable as without an innovative step while a computer program executing a modern procedure is taken as innovation.

**Scope of Software patents as per the TRIPs Agreement**

The WTO's has racked up a huge debate ever since it's Trade Related Aspects of Intellectual Property Rights (TRIPs) agreement. In the very middle of this discussion happens to be Article 27 of this agreement, which discusses the worldwide legal setup for software patenting along with debating the fact that can software and computer generated creations ought to be considered as a work of innovation. Licenses might be given for all kinds of innovations, may it be a separate product or procedure involving production of a product, across all fields of innovation, after making sure of the fact that these are new, original and include creativity. Moreover, it is essential to see that these are equipped for modern application as stated by Article 27 of the TRIPS agreement. Also, Licenses and Patent rights once granted to an individual should be allowed to be utilized without discriminating as to the spot of creation, the field of innovation and whether items are foreign made or indigenous[4].

With respect to software licenses, there are no dispute settlement methods. Its significance for patentability in the computer actualized business strategies, and software innovation stays dubious, since the TRIPs agreement is totally based on understanding of different individuals.

**Scope of Software patents as per the European Patent Convention**

Several members of the European Union, the EPO and other patent offices across Europe have started to issue numerous licenses for innovations including software subsequent to the

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[4] Trade Related Aspects of Intellectual Property Rights (TRIPs) Agreement. Art 27, 1995

principles of the European Patent Convention (EPC) being laid down since the late 1970s. As per the provisions laid down by Article 52 of EPC no "Programs for computers" can be patented (Art. 52(2)) up to the extent that a patent application identifies with a PC software "as such" (Art. 52(3))[5].

This has been deciphered to imply that any innovation which makes a technical contribution of any sort that is not obvious or tries to clarify a technical contribution in an unclear manner can be patented regardless of the possibility that a computer program has been utilized as a part of this creation. Computerized innovations that simply take care of a business issue with the help of a PC, as opposed to a technical issue, should be viewed as one that cannot be patented as it has been created without any innovative process. In any case, the way that an innovation is helpful in business does not mean that it cannot be patented in the event that it likewise takes care of a technical issue.

**Scope of Software Patents as per the Computer programs and the Patent Cooperation Treaty**

The Patent Cooperation Treaty (PCT) is a worldwide patent law arrangement, which has laid down a universal procedure so as to the filing and documenting of patent applications to secure innovations. Any patent application that has been recorded under the PCT is referred to as an International application or a PCT application. Under the PCT, the international search and the all primary examination are overseen by International Searching Authorities (ISA) along with the International Preliminary Examining Authority (IPEA)[6].

Be that as it may, before beginning to appraise the dawn of a new age and likening the licensing of programming in India to foreign nations, it would serve our cause well, if a genuine study is made with respect to the real picture of software patenting. This task can be undertaken by taking a gander at illustrations of nations in which programming licensing has as of now turned into a properly laid down framework.

**Scope of Software Patents in the United Kingdom**

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[5] European Patent Convention (EPC), Art 52, 1973
[6] Patent Convention Treaty, Part V, Ch. 17

United Kingdom patent law is translated to have the similar impact as the European Patent Convention such that "programs for computers" cannot be patented to the degree that a patent application is similar to a computer program "as such"[7]. A British patent application with respect to a computer that had been setup for the Automatic Solution of Linear Programming Problems was recorded as on 21st September, 1962. The creation dealt with memory administration for the simplex algorithm, and might be executed by simplest software processes. This particular patent was allowed on August 17, 1966 and is by all accounts one of the very first programming licenses[8].

Prevailing case law in the UK expresses that an innovation might be viewed as an innovation in the event that it contributes something that has not been already barred and that is something technical. A computer program executing a business procedure is in this way will not be treated as an innovation, but a computer program actualizing a mechanical procedure could very well be included in the category as seen in case of Aerotel Ltd v Telco Holdings Ltd[9].

**Scope of Software Patents as per the United States Patent and Trademark Office**

The United States Patent and Trademark Office (USPTO) generally does not consider software to be patentable in light of the fact that as per statute, licenses must be given only to procedures and machines used for production etc. i.e. Specifically, licenses can't be allotted to investigative truths or numerical expressions of those aforementioned. The USPTO kept up the position that product was as a result a scientific calculation, and along these lines could not be considered to be patentable up until the 1980s. This stance, on the issue of software patents, of the USPTO was put to the sword in the landmark Supreme Court case of 1981, Diamond v. Diehr. This case revolved a gadget that utilized computer programming to guarantee the right timing when warming rubber. In spite of the fact that the software was an integral part of the gadget, it likewise had different capacities that could be altered with certifiable control. The court then decided that as the gadget was primarily meant to shape rubber, it was a patentable article. The court basically decided that while calculations themselves couldn't be protected, gadgets that used them could be protected and therefore were entitled to get patents[10].

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[7] Jonathan Palmer, The British Problem (with computer program patents)

[8] The Inventor's Mentor, Patenting Software and Methods of Doing Business, July 2013, http://www.patentsandventures.com/archives/2013-07

[9] [2007] 1 All ER 225
[10] 450 U.S. 175 (1981)

Be that as it may, in the year 1982 the U.S. Congress created another court and named it as the Federal Circuit to decide on patent related matters. This court permitted allotment of patents to software in addition to laying down a rule which enabled the said patent to be universally applicable across USA. Because of some crucial cases that were decided in this court, by the mid-1990s, software patents had become really common and were the way to go forward. Additionally, many other relevant suits made it absolutely clear that software patents can definitely be enforced in the US. Thus, Software patents have ended up becoming ever so popular in the US. Since 2004, as many as 145,000 licenses have been issued in the 22 classes of patents covering computer actualized innovations[11].

**Scope of Software Patents in Japan**

Software can be specifically patented in Japan. Through different cases argued in Japan, granting of software patents has been completely legalized. In the year 2005, Matsushita secured a court judgment in its favor and thereby stopping the opponents from encroaching upon a patent in the name of Matsuhita in Japan, which involved a 2,803,236 word preparing software[12]. Software related creations can now be patented in Japan. To qualify as a creation, regardless, there must be a making of specific musings utilizing a law of nature in spite of the way that this essential is ordinarily met by properly understanding the information utilizing in order to plan performed by the product equipment asset. Software related manifestations may be seen as clean on the up chance that they include: the utilization of an operation known in various fields; the extension of a typically known means or substitution by proportionate; the execution in programming of limits which were at that point performed by hardware; or the systematization of known human trades.

In 1999, the settlement rate for business technique licenses at the Japan Patent Office (JPO) accomplished an unprecedented high of around 35 percent. Thus, the JPO witnessed a rise in patents related to business strategy. This rise went along with an enthusiastic diminishment in the typical rate of stipends in the business strategy licensing in the midst of six years; it stuck around between 8 percent from 2003 to 2006[13].

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[11] Wikibook of Health Informatics, PediaPress, pg. 452

[12] Heisei 17 (NE) 10040 (2005)

[13] By Kengji Sugimura & Rebecca Chen, An important market: software patenting in Japan, http://www.worldipreview.com/article/animportantmarketsoftwarepatentinginjapan

**Indian Approach toward Software Patent:**

Indian Government for the very first time in Patent Amendment Act, 2005 tried to make computer software to be patentable by amending the section 3(k) of the Patent Act which specifically denies the claim of computer software's to be patentable along with mathematical expressions per se[14].

All this was first done by passing an ordinance but it was taken back due to the strong opposition by the other party. Although the computer software can be patented if a direct link can be established between the software and the hardware and the claim for which the patent is demanded have some hardware application in it along with the codes of the software[15]

The very basis for a patent to be granted is to give the inventor some exclusive rights over his work so that he can make some profit out of it and also to motivate new people to do such works. In Bishwanath Prasad Radhe[16] the apex court of the country discussed about the inventive step and the obviousness of the invention that means only the exactly new things are to be patented. So going by this the software can never be patented as it is only a program which can be presented graphically on a sheet and also it is nothing without a hardware hence it is only a set of codes which can be copyrighted not patented but the patent can be granted if the invention have some hardware application in it.

Those who are in favor of the software patenting states that the software are a means of the development therefore they should be patented also it has been that the hardware of the computer, mobile and other such instruments runs totally on the basis of software that is they in themselves are nothing[17]. Therefore if the hardware is nothing in itself hence the function on which they perform different things should be patented as the software which comes before the patent office for registration always have something new in them hence a new invention can be termed to them thereby satisfying the requirement for being a patent hence they are eligible on the other hand those against this thesis states the computer program are nothing in themselves they always need a machine to perform hence they are just a simple or complex set

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[14] Software patent in India : A comparative judicial and empirical overview : By Ravindra Chingale and Srikrishna
deva Rao Published in JIPR Vol. 20
[15] Patenting software, algorithms & mathematical processes – some thoughts and approaches : By Sudha Selvaraj
[16] AIR 1982 SC 1444
[17] SOFTWARE PATENTS, IPpro Services (India) Pvt. Ltd: By Praveen Pani and Deepti Nigam

of codes hence has nothing new it is mere new development in the already existing software and at times with different functions, hence the software are not to be patented.

In the United States of America the congress a s well as the supreme court both agreed to the approach of the inventors who came with their software that they are too be patented rather being just given copyrights because they have realized the importance of the software in the development of the country in the modern era[18]. As the world is going online and it majorly runs on the internet hence they are to be patented rather than just copyright. Therefore as they are so much importance higher rights to be given to the person creating them rather them giving him copyright over some set of codes[19].

There is a also a point of debate that the inventor who has come up with a program then he has the right of having patent not a copyright because he has not written a thesis or some poetry rather he has created a software which the customer will have output using his program, hence if a software which has new application in the sense that it gives faster result or something altogether different then it has to be patented rather than just copyright.

If you give computer software copyright then they are just like websites used for accessing the data, while the way of accessing websites itself goes through the software chain hence they are something which led to the access and not just name of the website therefore they also stand apart from websites as well. Patent in them are a bundle of rights interested in the patent holder which provide them remuneration every time someone uses his software hence they motivate someone to develop more and more. If this benefit is not given to the inventor then why would he share his idea with anyone hence would work as a discouraging factor. With these it has been observed that the development of information Technology Company is higher in western countries where the patent is granted rather than India where copyright is given in place of patent. The policy reasoning behind the India giving the copyright is that the software can be expressed in written literal form while in other countries giving the patent is that the copyright gives protection only to the expression of the idea but not the idea itself hence they are chances of exploitation by the others which is not there in copyright because software is an idea of the creator which would simplify the data processing and output method by the consumer.

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[18] Computer Science Concepts in Copyright Cases : The path to Coherent Cases : By Marci A. Hamilton and Ted
Sabety; Published in : Havard Law Journal law and Technology Vol. 20 Num. 2 Winter 1997
[19] Current Problems in the Copyright Act Regarding Computer Software By : CRAIG ANTHONY VERNON

While some intellectual property rights experts have the view that the software can be given trade secret if they that much important for the inventor as well as if such patent is the source of regular income to him and also the use of software by the common people is not infringed by the inventor or by any other means hence the developer will get his profit and have its secret with him also the interest of society is preserved by this method[20].

Patent on one hand provide security to the developer while on the other hand it creates trouble for rest of the world as in this fast shrinking world the computer has immense importance but the patent grants power of the software in very few key player in this field so thereby monopolizing the whole market, which may lead to the obstruction in the development. The report of the Banks Committee on the British patent Act states that the computer software shouldn't be patented as the software are the set of the code created to work on the hardware and mere codes which are originally a numeric data cannot be patented they are to be copyrighted hence the interest of the developer can be saved that way not by patent. While there was discussion on the other side of the idea that the it would copyright only the expression of the idea but not the idea itself hence thereby anyone can come up with a new code with the help of these codes and claim other copyright thereby creating a chaos as well as the infringing the right of the original copyright holder which won't be there in the patent as it protect the idea as well. Invention must be novel and useful. It should not be confined to a person good in the art. It must be a noteworthy advance in the art and must not be a direct change from what we already know. In general this is the international law but is being functional differently in different countries[21].

This is the idea used literally in the Indian parallax for not granting the patent for the software as software is not an invention but a development, also this is the reason why we call software creator as developer rather than the inventor. Patent may even lead to a monopoly to a great extent for example Microsoft alone holds the patent for 5006 software till 2005 before the ordinance was forwarded by the President of India for making the software patentable rather than copyright, this is because the US provide patent for software. Hence all the other companies and user across the world has to follow this principle and pay the Microsoft for its rights hence there is clear cut monopoly of the company while this is not the case in terms of

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[20] Testing for copyright protection and infringement in Non-literal elements of computer Programs By: Arjun Krishnan

[21] Copyrights and Computer Technology :New Trend In copyright law By M.S Benjamin

copyright, while on the other hand the company would have suffered loss if the software where not patented because then just code will be protected not the idea and as it is clear that the codes can easily be hacked in the era of technology therefore a loss to the company. Therefore this is a never ending debate whether to give copyright or the patent to the developer. But a common law must be there for all the countries worldwide, as it creates problems for the developer as one country won't recognize the right of the developer if its law differs from the country where it is registered hence a problem, this needs a solution and common idea for protecting the interest of the software developer as well as keeping in mind the development of human race in mind.

Computer software consists of two codes one is the source code while the other is object code. The object code defines what the given software will give result but the subject code states how the given software will achieve interoperability of the software with other computer software. In the application for software intellectual rights only the object code is given and the copyright act also takes into consideration only the object code not the source code as it is technical aspect of the software which cannot be graphically presented, hence there is half thing protected not the whole thing as the source code remains unprotected.

The copyright provide protection to the software by creating two parts of one software one the copyrightable part and the left behind major part the idea. Because the whole idea behind providing the intellectual property right is to protect the interest of the developer hence if only the half thing is protected how then it is safeguarding? Therefore to fully protect the interest of the developer a better principle must be brought. The idea of giving protection to just half part of the work is not protecting but it is discouraging. Therefore due to mere conflicts of the software with the definition in the statute they can't be held non eligible for it. The definition in the statute is 45 years old, then the parameter of giving technology its importance is completely different then today, therefore a amendment can be made in the same for protecting the interest and also the better motivation for the market of technology.

## Conclusion:

Indian Patents Act came in force in the year 1970 that is almost 45 years back, and then definition of technology was different from what importance it has in the present world. The section 3(k) of the said act which provides provisions for the exclusions of the software from

patent registration must be amended as per the ordinance brought and rejected in the year 2005. Because the copyright protects only the object code that is what can be graphically presented not the source code that is what enables software to work with the hardware in other words the idea of the developer. The basic principle behind protecting the Intellectual Property Rights is to safeguard the interest of the author but if we still go by the definition of the software from the 1970's then it would harm the basic principle, hence a need for amendment in the Patent Act is there by providing the software patent rights just like the policy is followed in the United States.