Role Of Intellectual Property Laws For Protection Of Computer Software With Special Reference To Copy Right & Patent

Pradip Kumar Kashyap[1*], Bhriguraj Mourya[2]

[1*]Assistant Professor of Law, Teerthanker Mahaveer University
[2]Assistant Professor of Law, Teerthanker Mahaveer University

I. Introduction

Intellectual property, sometimes known as IP, refers to a piece of work that differs from a physical thing. Intellectual property (IP) is often the result of creative endeavors and may take the shape of a song, a formula, a song, or software. Copyrights, trademarks, trade secrets, and patents are all legal protections for intellectual property (IP). Individuals, new enterprises, and established companies all stand to benefit from innovations in software. When it comes to protecting content like software, the law is the most effective method. Programmers and corporations consider software as intellectual property in order to take advantage of the legal protections available to them. When it comes to protecting intellectual property (IP) related to software, a copyright and a patent both provide legal protection. Different aspects of intellectual property protection are covered by each of the available options. There are some who favor either one or the other, while others want to have both. Alternately, you have the option of treating your program as a confidential business information. Making a decision on what to do is a crucial stage in the process of securing your software. Your intellectual property software code may also be protected by trademarks, which are another alternative. Something that they safeguard is either the name of the product or a symbol that you use in order to promote the software. It is a good idea to trademark the brand name of your software in order to prevent other companies from selling a product with a name that is confusingly similar to yours.

As a result of the rapid expansion of the software industry, it is now absolutely necessary to safeguard the intellectual property that is vested in the software programs and the machines that use these software programs. Intangible in nature, software is a collection of instructions that controls the functioning of a system to carry out a certain job or to accomplish a specific outcome. Software is a set of instructions. When software is sold, the customer receives a license to use the program together with certain stated rights that indicate the dos and don'ts for the licensee. This is in contrast to the conventional items that are offered under the same terms. Due to the highly competitive nature of the software business, it is susceptible to being duplicated or pirated with other applications. Due of this, it is essential that the program be protected by intellectual property laws.

Intellectual property rights, which include copyrights, patents, trademarks, and trade secrets, are inextricably linked to the software business and serve as its cornerstone. Even while they each provide legal protection in their own unique manner, they all do so. In the marketplace, trademarks serve to safeguard the symbols and names that are used for the purpose of recognizing and distinguishing various items. Copyright, patents, and trade secrets all play a significant part in the protection of technological advancements. The software firms in India will grow increasingly sophisticated as a result of the country's ongoing process of economic development; thus, they will need more modern technology, a larger workforce, and marketing expertise. Creating new intellectual property is necessary for businesses in order to keep up with the current trend and achieve success in that sector. This is due to the fact that the existing intellectual property is more useable, and it will also be more creative and original, as well as appealing in nature.

In an effort to safeguard individual works, creative expression, and the expression of a concept, copyright laws are in place. The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) that was formed by the World Trade Organization (WTO) was responsible for the establishment of copyright protection for software. In accordance with Article 10 of the TRIPS agreement, the computer programs are handled by members of the World Trade Organization. The code for the program is likewise protected by copyright, but it must be written down and documented in order to be protected. Individuals who own copyright have the ability to prevent others from making use of and selling copies of the work without their permission.

II. Objective of Protection of Computer Software

Every day, we are able to generate a great deal of thoughts in our heads. This may be about a brand new piece of technology, a work of art, a piece of music creation, or any number of other things. Putting together a concept in the most creative manner possible is the source of all of the wonderful software innovations that have been developed in the past and continue to be made now. However, there were other instances in which individuals said that other persons had stolen their ideas. This, in fact, was the veracity. This occurred as a result of the fact that there was no ability to assert ownership rights over their intellectual property. However, this is no longer the case. It is simple to assert ownership of one's intellectual property, including the creation of such property and its use in creative works. This is referred to as copyright.

Because of the abundance of technology that we have at our disposal in this rapidly developing technological world, we are able to do a great deal with only a few clicks. On the other hand, what precisely does it entail at the conclusion of all of this? The software is the one that is effective. Developing your own software is not difficult at all, and in fact, a significant number of engineers are already doing it. Copyright may be readily claimed by you if the work in question is an original creation. To answer your question, the registration of copyright for software is possible. First things first, you need to be familiar with the many forms of copyright in order to determine which category something fits under.

III. Copyright Protection of Computer Software

Throughout the 1970s and 1980s, there was a great deal of debate on the question of whether or not computer software should be protected by the patent system, the copyright system, or a sui generis system. As a consequence of these conversations, the notion that computer programs need to be protected by copyright has been widely recognized. On the other hand, innovations that include software or gadgets that use computer software ought to be protected by patent.

One sort of protection is provided by copyright law, while another is provided by patent law. A patent is an exclusive right that is granted for an invention, which is a product or a process that provides a new way of doing something or offers a new technical solution to a problem. Copyright protection is only applicable to expressions, and it does not extend to ideas, procedures, methods of operation, or mathematical concepts in and of themselves.

The law governing copyright protects, in general, computer software that does not have an influence on the methodology of the investigation. There is a need for computer software to be distinctive in order to safeguard its copyright, and it is necessary to devote sufficient time and energy to effectively communicating its distinctiveness. On the other hand, a program that just generates proliferation algorithms would not be able to adequately service the level of effort that is required for protection. Not only must the work be original and not reproduced from any other source, but it must also be the first time it has been published in India. If the work is published outside of India, the author must be an Indian citizen at the time of the book's publication, or if the author has passed away, the author must be identified as an Indian citizen. In the case of works that have not yet been released, the author must be a citizen of India or a person who resides in India at the time that the work was created.

The major statutes that cover software protection under Copyrights Act, 1957 is given below:-

* *Under section 2(ffc) define "computer programme"* means a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result;
* *Under section 2 (o) defines "literary work"* means computer programs, tables and compilations including computer databases.
* *Under Rule 70(5)* Every application for registration of a computer programme shall be accompanied by the source and object code.

It is important to note that the Copyright Laws with respect to software protection protect the expression of idea and not the idea itself. In other words, it is termed as computer program which includes, human readable form called "Source Code" and machine executable form called "Object Code" and related manuals thereof are protected along with it. So copyright of computer programs prohibits copying of program structure and design. It cannot be overlooked that the copyright protection does not arm under it, the methods and algorithms within a program as the expression.

* **Source Code:** Source code refers to high level code or assembly code which is generated by human/programmer. It is written by programmer by using any High Level Language or Intermediate language such as Java, C++, or Python which is human-readable.
* **Object Code:** Object code refers to low level code which is understandable by machine. Object code is generated from source code after going through compiler or other translator. It is in executable machine code format.

IV. Procedure of Register Copyright for a Software Copyright

* Application has to be filed, detailing the 'Source Code' (kept confidential by Authority) and 'Object Code' (published by authority) along with proof of name, nationality proof of the applicant, work description, address proof, copies of the work submitted, the date of publication of work.
* After filing the application, the authority publishes the source code in the diary.
* Source code is made visible to the public for 30 days and if no objections are raised, the process continues further and in case of objections copyright hearing is taken.
* If accepted, the examiner will check the application for errors and send a letter of discrepancies, if any, to the author, and in case there are no errors, the application is passed.

Where the work is accepted by the registrar copyright notice is given on the copies of the work through the © (copyright) symbol.

V. Patent Protection for Computer Software

In this day and age, when everything is linked to the internet, software assets are among the most important and valuable resources that enterprises may own. Because of this, it is necessary to safeguard these assets in the same manner that one would protect any other intellectual property. The process of obtaining a software patent in India may be a trip that is both time-consuming and rather laborious. Particularly due to the fact that the field of software patents is not an easy one to understand.

At IP Flair, we are dedicated to providing patent support of the highest caliber for software-related ideas as well as worldwide patents. Through the development of effective intellectual property strategies, we have assisted both individuals and corporations in their pursuit of patent protection for their software. In addition to assisting our customers in selecting the patent protection and other intellectual property protection techniques that are most appropriate for them, we also guide them through the software patent landscape. By virtue of its highly developed software sector, India is recognized as one of the leading exporters of software services. Programmers often experience financial losses as a result of piracy of software or the software becoming outdated as a result of reverse engineering or other types of technological developments during periods of such technological breakthroughs. In light of this, it is imperative that the intellectual property that is associated with such software be safeguarded. The protection that is offered in this manner not only protects the economic interests of the inventor but also encourages creative thinking. There is the potential for software patents to be granted in India. Patent applications safeguard the original and innovative characteristics of inventions related to computer programs, software, and mobile apps from being reproduced by rivals. Patents are filed for innovations that relate to these types of advancements. In India, software patents are awarded for software that is integrated inside a mobile application, as well as for software that is combined with hardware. In spite of this, the legislation governing patents in India does not provide patent protection for software in and of itself, which means that it is not possible to patent a computer program. This clause may be found in Section 3 of the Indian Patents Act, which is concerned with inventions that are not eligible for patent protection.

Article 27 of the TRIPS Agreement, which does not define the term "invention," goes on to state that patent protection is accessible for all inventions, regardless of the area of technology, and it outlines the criteria for awarding patents, which include novelty, innovative step, and industrial utility. The Berne Convention of 1971 allows for the protection of a program's "Source Code" and "Object Code" as "Literary Works," as stated in Article 10 of the Trade Related Intellectual Property Rights (TRIPS) agreement.

VI. Patent Protection for Software under Patent Law

Although it is possible to offer copyright protection to the expression of the techniques of programming codes, it is not possible to grant copyright protection to the operational methods and principles of the program. Additionally, since reverse engineering is a legitimate use of the software, it is acceptable to turn trade secrets into reverse engineering codes. Consequently, the patent becomes necessary for the protection of software since a patent is based on the scope of the work rather than on the manner in which the piece was generated. When the issue at hand pertains to the protection of ideas as well as the practical functionality of the program, a patent may prove to be the most suitable option. However, in order for the software to be eligible for a patent, it must not only be an algorithm; rather, it must be a technological innovation that meets the requirements to be given a patent.

The Patents (Amendment) Act 2002, which went into effect on May 20, 2003, is the law that governs the process of registering a patent in India. A computer program cannot be patented in and of itself, according to Section 3(k) of the Patent Act of 2002, which was amended by the Patents Amendment Act of 2002.

a) Mathematical or business method or a computer programme per se or algorithms.
b) Literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions.
c) Mere scheme or rule or method of performing mental act or method of playing game.
d) Presentation of information.opography of integrated circuits;
e) Topography of integrated circuits.

India does not allow patents to be granted for software by itself. Software, on the other hand, may be eligible for patent protection if it is a component of an invention that is not only innovative but also relevant to industrial usage. Specifically, the Patents (Amendments) Act of 2002 states that computer programs in and of themselves are not eligible for patent protection. Note that the only thing that has the words per se linked to it is the term computer program. This is a very crucial point to keep in mind. Every other thing that is not eligible for patent registration does not have the terms linked to it in and of themselves. The way to demonstrate that you are referring to something on its own, rather than in conjunction with other things, is to use the phrase "per se," which may be translated as "by itself," "in itself," "as such," or "intrinsically" according to the general dictionary definition. Therefore, software itself would not be eligible for patent protection. On the other hand, a program that is included in a computer-related invention is eligible for patent protection. An industrial application of the invention is required, which means that the innovation must be able to be manufactured and used in a commercial setting.

a) **Inventive step-** there should be an invention that involves technical advancement as compared to the existing knowledge or having economic significance or both which makes the invention not obvious to a person skilled in that art.

b) Novelty- it defines what is new. Something which has not been anticipated by publication in any document or used in the country or elsewhere in the world before the date of filing of patent application with complete specification. It means the invention has not fallen in public domain or it has not formed the art of state.
c) Patentability exclusion- mathematical method or business method, computer program per se or algorithm.

In spite of the fact that the Act has a provision that allows for an exemption, not all software is exempt from the provision. The invention will not be considered patentable under section 3k and will instead be evaluated according to other criteria of patentability if the essential essence, contribution, or function of the claimed invention is in the computing program in addition to the hardware. When it comes to registering a patent, the inventor himself, his assignee, or his legal agent are all viable options for filing the application. In accordance with the applicant's primary place of business and place of residence, the application need to be submitted to the designated Patent Office. Additionally, a tentative or comprehensive specification must to be included with the application. It is required that the full specification be submitted within one year of the date the application was submitted, even if the application was submitted with a tentative specification. It is required that the application be publicized in order to receive objections once it has been submitted. You are required to submit a request for inspection within forty-eight months of the date that the application was filed, after it has been published. The examiner will review the application with regard to the questions that are listed below, namely....

• Whether the application complies with the requirements of the Patent Act?
• Whether there is any lawful ground for objection to granting of Patent?
• Whether there is the anticipation of the invention by Prior Art? (Patent Search)

The report that the examiner has compiled will be sent to the controller of Patents. In the event that the applicant's application is not challenged and the whole specification is approved, the patent will be awarded to the applicant. After the day when an application for a patent is submitted, the patent will remain in effect for a period of twenty years.

VII. Conclusion

There are a variety of ways to provide security for computer objects. Apart from all these no means of security is fail safe, and therefore additional precautions must be taken to assure the highest possible protection. From the above discussion it is clear that probably patent is the most appropriate form of intellectual property protection for computer software and hardware. Unlike copyright, which protects final works, software patents, which protect against the imitation of features, allows the protection of these elementary ideas, and thus prevent whoever to réalise a program implementing a protected idea. Software patents, by allowing their holders to claim elementary ideas, thus constitutes an extremely powerful monopoly-building tool, because the holder of a single patent can prevent the selling of all software implementing this idea, whatever their application domains can be. Copyright protection is the other protection, which is available for shielding computer software. It could be considered as the most appropriate means of software protection. But copyright protects only the expression of an idea that has to be in a tangible and permanent form. The novelty aspect of patent law need not be considered in copyright.

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