Software Protection- Copyright or Patent

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The creation and protection of intellectual property is becoming extremely important for Indian software companies and it is only likely to increase further. There remains a lot of ambiguity with regard to whether copyrights or patents are more viable to protect Softwares. Although, mostly softwares are registered as copyrights, in certain situations as patents but a few nations allow protection under both-copyrights as well as patents.

Softwares are protectable under Copyright Law as a literary work, however, the scope of the literal part has not been defined. Generally, it iscopyrights that protect the expression in computerprograms whereas a patent protects the program functionality. Copyrights are generally preferred as the criteria required for grant of a copyright protection is less stringent as compared to that of patents. Conversely, a number of patents will be required as every line of coding serving a different purpose would be patented separately. Patents are granted to Softwares in cases wherein they offer a technical solution to a technical problem. The primary reason for their consideration over copyrights is that they protect the idea, procedure and methods of operation and offer a higher and stronger level of protection. To obtain a patent, it requires a minimum level of “invention” to be met,yet, there is no definition of the threshold of such an invention. Generally, softwares comprising of algorithms and mathematical formulas cannot be protected as patents.

The main question arises is that even after protecting a Software as copyright, in the event of infringement, what would be an applicable test to determine it. The United States Supreme Court in the*Wheelancase*[2]discussed this matter. Herein,an original structure of the software was used even though certain parts of it were copied. The court ruled that copyright protected the software as it had a distinct structure. The Whelan test failed to accomplish the goal of granting computer programs copyright protection as it was so overly broad that it protected ideas as well as expression, and thus it violated copyright law. The *Altais case,*[3]the Court reversed the above test. The software involved here had pieces that were not original and hence it was held that only the original code in the software had copyright. The three-part "Abstraction-Filtration-Comparison" test was introduced in this case. In the above test, Abstraction referred to separation of the actual code from the ideas, Filtration included

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[2] Wheelan Associates Inc. v. Jaslow Dental Labs, 797 F.2d 1222 (3d Cir. 1986).

[3] Computer Associates International, Inc. v. Altais, Inc., No. 91-7893,1992 U.S. App. Lexis 14305 (2d Cir. Tune 22,1992) .

extracting the parts to which the protection was not extendable and the final step of Comparison included the original and alleged copies simultaneously to find the similarities. Although this test was a vast improvement, it was later criticised due to the failure of providing methods for filtration as well as due to the lack of need of such abstraction in the particular cases. The Whelandecision failed to strike the proper balance between public dissemination and individual incentive mandated by the Constitution. The Altaidecision was an answer to the failings of the Whelandecisions yet the Altaidecision failed as well.

Softwares protected as copyrights have also been criticized as their protection as 'literary works in accordance with copyright law are really not literary works as they do not evolve from the abstract thoughts and descriptions. However, as it is easier to protect the software using a copyright, it is the most opted-for method. Further, the nature of coding and the nature of the function may differ and thus the copyright may not be of a very protective nature at the end of the day, as the function the software serves may not be protected.

With regard to patents used for protecting softwares, the underlying method of operation and principles of a computer programme is protected. Under this, the protection is determined by the scope of the patent and not how the competitor developed the software. It generally tends to get more difficult to protect the software under a patent due to the need to establish its non-obvious character. Under the pre-revised Patent (Amendments) Act 2002, a fewsoftware related patents were granted on the basis of being a new idea and technology and not on software as such.[4]Under Section 3(k) of the current Act, 'a mathematical or business method or a computer programme*per se* or algorithms' are non-patentable. It is pertinent to note that the ambiguity regarding the provision under Section 3(k) was cleared by the CRI Guidelines 2016, which provided that Patents on computer programs can be conceded if the inventor demonstrates that the invention incorporates a computer program "in conjunction with a novel hardware. However, the CRI guidelines have failed to explain the term 'Novel Hardware'. Hence, patentability of software still remains ambiguous.As a result a number of patents on 'technical effect' of software have been granted in India.[5] The Indian Patent Office had issued about 150 patents to multinational software companies.Patents are granted for a period of 20 years in most countries, however, the software becomes obsolete much before that and due to its strong nature of confidentiality, it may stand in the way of advancing technology further by not revealing the source or ideas in public.

[4] S K Verma, *IP Protection of Software and Software Contracts in India: A Legal Quagmire!*,17 JIPR284, 284-295 (2012).

[5] ShardulShroff and Dev Robinson, *India's Biotech and Software Renaissance*, 151 MANAGING INTELLECTUAL PROPERTY 76, 77 (2005).

In a 1941 case,[6] the US court held that an algorithm could not have a patent as the algorithm didn't have a specific use due to which it wasn’t awarded a patent. Following this, in the *Daimondcase*,[7] computer software helped to operate machinery in a specific way. This software process received a patent although it contained an algorithm. It was awarded a patent because of the unique process it was used in.In the *Alice case,*[8] the software in question used a "generic computer" to run a business model. The process of using software on a generic computer isn't unique enough to separate software from "abstract." However, the court ruled that abstract ideas will not receive patents. To sum up, USArecognizes the software patentability but India only recognizes software patentability only if it is somehow linked to some hardware or computer network.

The issue arising with this is mainly a doubt as to whether patents may be classified based on their nature or on the field of usage.The nature and the usage of the software tend to differ in some cases and hence classification based on usage tends to become a roadblock when and difficult to find “prior art”. The TRIPS Agreement also does not mandatorily extend the protection to computer softwares. Prior art may also be difficult to find as most software inventions are not described in published journals. Based on this, they may also be hard to register or search for ideas.The USPTO has now appointed Patent Examiners for Softwares and Computer Related fields.

On the European level, Directive 2009/24 seeks to define a minimum level of protection. Member States protect computer software as such by copyright, by analogy to the protection given to literary works within the meaning of the Berne Convention for the Protection of Literary and Artistic Works. With respect to Patents, Article 52 of the European Patent Convention excludes software from patentability to the extent that a patent application relates to a computer program as such. Patent protection may be provided if the subject matter of the invention has a technical character and this must be present in all variants covered by the patent claim.

In order to ease the tests forinfringement for softwares under copyrights, a modification of the “AFC Test” must be done as it tends to make the process more cumbersome. The need for “Abstraction” under this test can be eliminated or replaced by a more comprehensive method of determining the alleged copied parts of softwares. Further, with regard to patents, a “threshold” criterion must be established for inventions. As most of the softwares to some

[6] Gottschalk v. Benson, 409 U.S. 63.
[7] Diamond v. Diehr, 450 U.S. 175.
[8] Alice Corp. v. CLS Bank International, 573 U.S 134 S. Ct. 2347 (2014).

extent are “obvious” and may involve certain level of mathematical calculations and algorithms, patenting of the software must be allowed as considering the software as a whole and looking as the technical solution that it offers.

At the National level, policies must be implemented to support software development and clearly outline the requisites for their registration as copyrights and patents. However, as software developers seek to protect their work across the world there should be more uniformity in rules that must be provided by TRIPS or WTO. This is mainly for the conundrum that may arise if a developer registers his software as a patent in some countries but seeks to register it in another which refuses to register softwares as patents but only as copyright and there may also be countries allowing both. This only increases the confusion further for the applicant and is also ambiguous on the level of protection the software may receive in different countries. It has become the need of the hour to evolve our laws with regard to software patenting so that we may promote the technological advancements in the country.