PROTECTION OF SOFTWARE: AN ANALYSIS OF COPYRIGHT AND PATENT LAWS IN INDIA

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ABSTRACT

Over the last decade, India has emerged as the country of talented software developers, but it still lacks in providing adequate protection to softwares. This paper analyses the existing Intellectual Property Laws in India and discusses the various aspects of a computer programme or software that are protected under the said laws. At present, softwares are primarily granted protection under the Copyright Laws. However, the protection granted under the Copyright Laws in India is limited as it only protects the literal aspects of the software, that is the written source code or object code of the software. In India, Computer-related inventions are also protected under the Patent Laws, but the law falls short in protecting inventions existing in solely computer programmes or softwares. The existing Patent Law in India expressly excludes 'computer programme per se' from patentable subject matter. Thus, the functional aspects of a computer programme or software remain unprotected in India, in spite of meeting the requirements of patentability. This paper also traces decisions taken by judicial bodies while dealing with the scope of protection offered to softwares under Intellectual Property Laws.

Keywords: Software patents, Software work copyrights, Software inventions, Computer related inventions, Patentable subject matter, Section 3(k)

INTRODUCTION

We are currently existing in an era of software and technological advancements where we have game-changing softwares like Artificial Intelligence based platforms such as ChatGPT[1], Craiyon[2] and cloud services like Google Sheets[3] making our lives easier. There has been a spurt of growth seen in the last decade in Computer-related inventions ('CRIs') and wide use of softwares and mobile applications in our daily lives. However, the law seems to be lagging behind when it comes to softwares and technological advancements being made in the society.

Currently, Computer programmes and softwares are primarily protected under the Copyright Law. But, as Copyright only protects the 'expression' of ideas and not the 'idea' itself, it is limited to protecting only the literary expression of the software.[4] Whereas, the Patent Law is that branch of Intellectual Property Laws which protect innovative 'ideas' and inventions. However, the protection guaranteed under these two branches of laws is insufficient as they fall short when it comes to the protection of the functional and non-literal aspects of a software. **Section 3(k)** under the Patents Act mentions that a *'computer programme per se'* is a non-patentable subject matter.[5] Whereas, countries like USA, EU and Japan have adopted a relatively flexible patent regime that allows for the grant of patent registration for computer programmes and softwares.[6]

In India, there are many talented software developers, but the lack of substantial patent protection for software inventions actually is benefiting the big players in the IT sector. Big companies can always opt to get patent protections for their softwares in jurisdictions other than India. However, startups and small enterprises in India typically lack the resources or knowledge necessary to secure patent protection elsewhere.[7] Without these software patents, it is more difficult for small businesses to gain market share, create income, and hire and keep their talented employees necessary for a long-term success.

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[1] 'ChatGPT' is an AI based online chatbox which provides detailed responses to the questions posed to it by a user.

[2] 'Craiyon' is an AI based online platform which generates drawn images as per the prompts provided by a user.

[3] 'Google Sheets' is an online SAAS (software as a service) that allows you to create and format documents on the platform itself as well as collaborate on them with others.

[4] Copyright FAQ, Copyright Office, Government of India available at - https://copyright.gov.in/frmFAQ.aspx

[5] The Indian Patents Act, 1970

[6] Jyoti Rattan, *Bharat's Cyber Laws & Information Technology,* Bharat Law House, 9th Edition (2020).

[7] Ron Fernando, *"Why India Needs Software Patents"*, MANAGING INTELL. PROP. 24 (2009).

LEGAL PROTECTION GUARANTEED UNDER COPYRIGHT LAW

A software is primarily considered to be the subject matter of protection of Copyright Law. Under Black's Law Dictionary, a **'software'** has been defined as "*the information, in the form of computer programs that make a computer carry out certain functions."*[8] Thus, it can be interpreted that a computer software can be a set of instructions that command a computer to perform certain technical functions. These set of instructions are often in human readable formats and are known as the *'source code'* and the *'object code'* of the software. Further, the **Indian Copyright Act, 1957** under **section 2 (ffc)** defines a '**computer programme'** as *"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;*". This definition specifically conveys the term *'expressed in words'* as the Copyright Law is limited to protecting only the expression of ideas and not the idea itself.[9] Hence, in the case of software works also, the protection granted under Indian Copyright Act is limited to the words used to express these software codes in a readable medium.[10]

The software codes are included under the meaning of **'literary work'** as per **section 2(o)** of the **Copyright Act, 1957.** The said section states that **'literary work'** includes "*computer programmes, tables and compilations including computer [databases]".* The Copyright Act does not extend its protection to the non-literary functioning of the said software. In the case of ***Shyam Lal Paharia v. Gaya Prasad Gupta[11],*** the Allahabad High Court relied on the observations of Justice Peterson made in the case of ***University of London Press Ltd v. University Tutorial Press Ltd.[12]*** which ruled that, while substantial copying of a work is illegal, adopting the work's central idea does not constitute an infringement. Similarly, even in case of software works, it can be interpreted that the central idea behind the software will always be at a risk of being copied. There is a possibility of another individual adopting the central idea of the software, but creating a different source code which could generate similar results as the original software. As a result, the Indian Copyright Laws do not provide protection for the idea behind the work, but only the expression.

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[8] Black's Law Dictionary, 2nd Ed.

[9] Copyright FAQ, supra note 4

[10] Richard Morgan and Kit Burden, *Legal Protection of Software: A Handbook, Encyclopedia of Information Technology*, Universal Law Publishing Co. Pvt. Ltd., First Indian Reprint, 2007

[11] Shyam Lal Paharia And Anr. vs Gaya Prasad Gupta 'Rasal', AIR 1971 Allahabad 192

[12] University of London Press Ltd v. University Tutorial Press Ltd, 1916-2 Ch. D. 601

Even though, considering software as literary work is not inaccurate, it can be considered as being incomplete.[13] While the protection granted under Copyright Laws is automatic, it only protects against the literal copying and replication of the source code or object code of the software. It does not protect the underlying invention of the software.[14] Therefore, the Copyright protection granted for softwares is not sufficient, as it is possible for companies to appropriate a valuable innovation that may exist in a copyrighted software, simply by rewriting the software code using a combination of text that are different than the original code.[15]

LEGAL PROTECTION GUARANTEED UNDER PATENT LAW

It was in late 20th century, with technological advancements being made, the focus shifted from inventions in physical objects to virtual objects. It can be seen that technological advancements are shifting from hardware to software.[16] Patent Laws are more focused on the protection of novel and inventive ideas and they are not particularly concerned with the expression of these ideas, unlike Copyright Laws.[17] However, the requirements for registration under patent are more stringent compared to the requirements for registration of other intellectual property rights. A patent application needs to meet the requirements of being novel, having an inventive step and being non-obvious to a person skilled in the art.[18]

But, the registration of patents for softwares has been widely debated not only in India, but in International Jurisprudence as well.[19] **Article 10** of the **TRIPS Agreement** when read in conjunction with **Article 27(1)** enables the issuance of patents for subject matter that has a *'technical character.'* Thus, softwares can also be patented, provided they have certain technical character. The Indian Patents Act, 1970 was amended in 2002 and 2005. Prior to these amendments, the grant of patents for computer softwares was not excluded. The software invention only needed to meet the requirements of inventive step and industrial application to be eligible. The field of computer programmes was expressly excluded from patentability following the Amendment of the Patents Act in 2002. In order to avoid the dual forms of

[13] Pamela Samuelson et al., *A Manifesto Concerning the Legal Protection of Computer Programs*, 94 COLUM. L. REV. 2308, 2316 (1994)
[14] Ania Jedrusik and Phil Wadsworth, *Patent protection for software-implemented inventions*, WIPO Magazine (2017).
[15] Fernando, supra note 7.
[16] Jedrusik, supra note 14.
[17] Id.
[18] Patent FAQ 2020, Office of Controller General of Patents, Designs and Trade marks, India available at - https://ipindia.gov.in/writereaddata/Portal/Images/pdf/Final_FREQUENTLY_ASKED_QUESTIONS_-PATENT.pdf
[19] Noyonika Borah, Software Patents in India - The Missing Link, 20 Supremo Amicus 421 (2020).

protection available to software under the aforementioned laws, software was excluded from patentable subject matter in the Indian Patents Act.

As mentioned above, **the Indian Patents (Amendment) Act, 2002** introduced the words '***computer programme per se***' in **section 3 (k)** of the Act, resulting in computer programmes and softwares being un-patentable subject matter by themselves under the Patents Act**.**[20] There has also been a lot of ambiguity in interpretation and applicability of section 3(k) of the Indian Patents Act. In the case of ***Accenture global GMBH, Switzerland v. Assistant Controller of Patents and Design Office***[21]*,* the Intellectual Property Appellate Board had held that the patent for a system for developing internet-hosted web services and software was actually novel and would not fall under section 3(k) of the Indian Patents Act. However, in the said case, the Appellate Board did not provide any clarity on what conditions have to be considered, while analysing a computer programme or software patent application, to understand why a patent application would or would not fall under the ambit of section 3(k) of the Act. Further, in 2015, in the case of ***Telefonaktiebolaget LM Ericsson (PUBL) v. Intex Technologies (India) Limited***[22]**,** the Delhi High Court held that *"prima facie that any invention which has a technical contribution or has a technical effect and it is not merely a computer program per se as alleged by the defendant then the same is patentable."* This landmark decision suggested that if patent applications for CRIs can prove technical contribution or technical effect, then they are patentable in India. But, this interpretation created a new hurdle, as there is ambiguity as to what would be considered as substantial technical contribution or technical effect.

Further, as seen in the two cases above, the judicial bodies have made interpretations of section 3(k) in an ambiguous and vague manner. This made it difficult for citizens to understand the scope or applicability of section 3(k) of the Indian Patents Act. In order to provide some clarity, the Office of Controller General of Patents, Designs and Trade marks announced **Guidelines for Examination of Computer Related Inventions ('CRIs')** in 2016.[23] These Guidelines laid down a three-tier test on which the Examiners could rely on while examining patent applications that dealt wit CRIs. The third stage of the said test mentioned *"If the contribution lies solely in the computer programme, deny the claim. If the contribution lies in*

[20] The Indian Patents (Amendment) Act, 2002

[21] 2012 SCC Online IPAB 192

[22] I.A. No. 6735/2014 in CS(OS) No.1045/ 2014

[23] *Guidelines for Examination of Computer-related Inventions*, Office of Controller General of Patents, Designs and Trade marks of India, 2016 available at - http://www.sric.iitkgp.ac.in/Patent_portal_v3/Downloads/cri.pdf

both the computer programme as well as hardware, proceed to other steps of patentability."[24] Thus, these guidelines allowed for CRIs to be granted patents, only if the invention lies in a novel hardware or in a combination of a novel software and a novel hardware.

However, the above-mentioned three-tier test was removed by the Office of Controller General of Patents, Designs and Trade marks in their **Revised Guidelines for Examination of Computer Related Inventions, 2017**[25]**.** These revised guidelines clarified that the claims of a patent application concerning CRIs should be considered together and not in bits. It further stated that if any claim, in any form, falls under the excluded categories mentioned under section 3 of the Patents Act, such a claim would not be patentable. However, in substance, when a claim is considered as a whole, and it does not fall under the exclusions mentioned in section 3 of the Patents Act, the patent application should not be denied[26]. These guidelines, therefore, provided some understanding on how patent applications dealing with CRIs are to be considered.

But, the protection guaranteed for softwares under the Indian Patents Act still remains insufficient as it does not allow for the grant of a patent for a CRI having a novel and inventive software being operated on a known hardware.

CONCLUSION

The granting of registration of software patents in India is felt more now than ever, as we are a generation being driven by the use of internet and smartphones. However, to achieve this, there exists a need for a clear and unambiguous stand on the protection of software inventions in India. The current regime is very rigid and offers incredibly little protection for the inventions produced by India's most prosperous industry, i.e., the software industry. As a result of this, the Indian software industry has not been driven to pursue patent protection for local software developments, and domestic business owners are now without a significant instrument of protection.

It is time for the Indian policymakers to unequivocally address that software patents are required for protecting the interests of the software industry and inviting foreign investments

[24] Id.

[25] *Revised Guidelines for Examination of Computer-related Inventions*, Office of Controller General of Patents, Designs and Trade marks of India, 2017 available at - https://ipindia.gov.in/writereaddata/Portal/Images/pdf/Revised__Guidelines_for_Examination_of_Computer-related_Inventions_CRI__.pdf

[26] Id.

into the Indian economy. The patentability criteria for computer programme and software inventions and its enforcement must be made clear by the Indian Intellectual Property Office. There is a need for the policy makers to broaden the scope of protection granted to CRIs under Intellectual Property Laws in India and revise section 3(k) in order to include computer programme per se under the ambit of patentable subject matter once again.