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# IP Protection to Software: Conflict between Indian Provision and Practice

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Human life, in the recent past, has been affected most by the rapid advancement of information technology and allied inventions. Commerce, entertainment, sports, business, life style etc. have seen a drastic change in the manner they are being carried out and how the consumers or end users have responded to them. These advancements demand innovation and continuous development of the software and hardware involved in the process; and an innovation being an investment of intellectuality demands the economy for an equivalent return. These demands have been met by the protections granted through grant of exclusive rights, with exceptions, under the jurisprudence of intellectual property, more precisely through patent regime. However, software was for a long time considered as non-patentable because of it falling into the pool of non-patentable subject matters. This became an issue with the appearance of Independent Software Vendors who developed software which were not attached to a particular hardware. In order to promote those innovations, judicial pronouncement in US in Benson-Flook-Diehr trilogy along with international documents like PCT and TRIPS played crucial role. This paper focuses more on the provisions and practice relating to grant of protection to advancement in the field of information and technology in India. The paper analyses the practice of Indian Patent Office, from the data available, and explains the existing legal framework and jurisprudence in order to suggest solutions to the issue at hand. The paper demands a tailor made and industry beneficial policy, keeping in mind the socio-economic condition of the state.

**Keywords:** Software patenting, TRIPS, PCT, Indian Patent Office, CRI Guidelines, non-patentable subject matter

One of the biggest fields of continuous innovation since late 20$^{th}$ century has been the software industry, which has been growing fast and has changed the lifestyle of humans in many different ways. Technological innovation using software, like smart-phones, tablets, gadgets and other new electronic items have changed the scenario of the electronic world. E-commerce, e-marketing, e-business and many more are transforming the old style into new electronically assisted methods. Now the world is in our hands and everything is possible with just the click of a button. These changes can be duly attributed to the constantly evolving software and information technology (IT).

IT not only signifies information technology but it portrays India as it is perceived globally today and also gives us an idea as to what it would be in the future. The efficacy and use of such inventions can be realised through the initiatives of the Indian Government, *viz.* Make in India, where industrial innovation is being promoted. Therefore, it has become pertinent to ensure that the balance which has been there in the patent regime is maintained, where the law has to consider and take into account the changing nature of technology and continuous development in this regard.

Among all the challenges in the Intellectual Property (hereinafter, IP) regime, which creates a negative protection in order to prohibit any kind of infringement of innovations protected therein, the biggest has been rapid innovation in itself. Specifically, patent regime deals with the functional aspect of IP through protection of novel products or procedure, which have shown non-obviousness and inventive step, have some utility and are capable of being industrially produced.

This protection regime has, since its inception, a few exceptions in the form of non-eligibility of abstract ideas, mathematical and business methods, naturally occurring events and a few others, which countries adopt based on their socio-economic-political scenario and requirements. It can be understood as the balance that every IP wants to create between the right holder and the public interest. While the rights granted for IP works as the motivation and a further facilitator for innovation, the exception for enforcement of rights in certain cases is for the benefit of the society at large.

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In last 15 years, India has emerged as a lead exporter of services pertinent to software. While considering growth of the IT, we also have to take into consideration the protection of this new technology so as to foster the growth, innovation, competition and new job opportunities in the IT industry as a whole. Protection of software is the most important thing in the growth of the software and IT industry. The question, of whether computer software should be patented or not, and if patented then in what form, is pertinent to India in the same manner as it is to any other developed nation, considering the involvement of India in the software industry by means of various products and services being provided in and outside India.

The paper will try to revisit the jurisprudence in regard to patentability of software and will try to analyse the current legal provisions governing software patenting in India and practice followed by the patent office in granting protection to software in India.

**Realising Existing Jurisprudence *vis-à-vis* Software**

In the early days of IT sector, software existed only as an integrated part of the hardware accompanying it, thus the protection of IP was invariably limited to protection of such hardware. However, in late 1960s, as a result of technological advancement, software was now being separated from the hardware, which brought into the market the concept of Independent Software Vendors (ISVs).[1] Since then, these ISVs have been responsible for producing various types and versions of operating systems, which may or may not be dependent on the hardware requirement, and along with it, there has also been development of various individual applications or software, for different operating systems.[2] This led to the invention of the low cost computer (and later on several different gadgets) which can be used for our personal needs, and which while working on a set of software, have scope for replacement and/or addition. This in turn, created the market for ISVs, thereby causing the IT industry to flourish.[3]

Software, just like biotechnology, is an area of technological advancement which has witnessed its emergence, as an aspect to be protected, long after the jurisprudence in this regard has been settled. It is true that constant amendment has been made in international instruments and national legislations, to cover this aspect, by inclusion, exclusion or conditional inclusion (with the condition of being attached to any hardware). However, it has to be critically analysed, with regard to the field of software protection.[4]

In this part of the paper, the author will try to discuss the existing jurisprudence in international instruments and Indian Patent Act 1970, and its impact on the software industry. However, before that, the author would like to discuss in brief the overlap between patent and copyright for the purpose of granting IP protection to software.

**Copyright, Trade Secret or Patent: Making the Right Choice**

Over the years, several questions have been raised through practice, where software has always been considered to be a subject matter of copyright, rather than patent, because of its inherent nature of constituting of merely mathematical formulas, accompanied by group of commands to be followed, in order to achieve the goal.[5] However, copyright is not a strong regime to grant protection to such vulnerable innovations, especially in the current global market of the internet, which has led to the bringing alive of the deterring dream of piracy with respect to software related inventions. Therefore, the developers are of the opinion that patent protection to software industry is of vital importance.

The overlap, however, can be seen as software fulfilling the criteria of patentability, i.e. they are novel, contain inventive step (also qualifies the test of non-obviousness) and are industrially applicable, but at the same time they form part of an original idea with an expression of the same. As soon as the coder writes his or her code in a tangible form and stores in any kind of medium, the code becomes copyright protected, even without any requirement of specific registration.[6] So, such kind of protection can be extended to three different aspects of a code, i.e. (i) protecting the human readable form or the source code, (ii) protecting the machine readable form or the object code and (iii) the related documentations.[7]An additional advantage for copyright protection is that it creates a better balance when it comes to fair and free circulation of protected material and it is economically more viable to obtain. However, the disadvantage is that the functional aspect of software is not protected through copyright, which is the primary difference between software and any other literary work.[8] Software is a dynamic product which is not just for the purpose of reading and referencing. A learned developer can bypass the protection granted

to the software through copyright very easily by recreating new software without copying the code, but while using the same functionality and idea behind the software.[9] The issue also arises in creating a differentiation between the idea and expression of the same.[6]

Another type of protection which can be made available to protect software is trade secret. This can be achieved by the developers when they make available the software in machine readable language, which cannot be easily circumvented by any developer, regardless of whatever programming language is being used. Thus, keeping the source code of the software as a trade secret, the *modus operandi* of the software is unknown to the public and at the same time, the method of combination and achieving of the software is also kept a secret. However, the disadvantage of trade secret protection of software is same as any other subject-matter, i.e. independent research can lead to loosing the secret and thus create a monopoly over the same. Reverse engineering or anti-circumvention, in case of trade secret protection, is not restricted and thus creates an advantage for the developer who is capable of deciphering the source code behind any software.

In contrast to both of these protections, where copyright is automatic in nature on the expression and trade secret, is the protection through individual efforts, which states that patent can be granted only if the software qualifies the patentability test of being novel, involving inventive step and if it is industrially applicable. Therefore, when it comes to protecting the functionality of software, the best possible protection regime is that of patents. Patent protection creates a limit on the rights of software developer or patentee to the claims made in application and at the same time it would also prohibit protection of software which is similar to already patented software.[10] Thus, this has led to an increase in demand for patent protection for software.

However, this overlap can be easily taken care of by granting part protection to the software. This solution, in fact, relies on the fact that while copyright protection is limited to the expression of the idea, the patent regime has no such limitation.[5] Thus, while copyright can protect the written code of the software, the patent would grant a protection to the functional aspect of the same. The solution is viable, because there is no other subject matter in which this overlap can be witnessed.[5] Thus, the solution will be an exception, which would in turn strengthen the general rule of not granting two different IPs to the same subject matter.

If we talk about trade secret protection for source code of the software, it has to be understood that the balance of the IP jurisprudence, which has to be maintained between private and personal rights, will always be tilted towards the developer whenever there is a probability of the secret being let out. However, it is highly impossible to arrive at a scenario wherein the actual balance between private and public interest can be maintained and this is also undesirable for the community as such.

At last, if we consider the economic aspect, it is only reasonable that considering the amount of investment that is being done in R&D of software, to grant them a strong IP protection, with economic backing in the case of infringement, for both loss and damages.

## Patent Eligibility of Software under TRIPS

The Agreement signed over Trade Related Aspects of Intellectual Properties (TRIPS),[11] which came into being with the formation of WTO in 1995, has brought a drastic shift in the jurisprudence concerning the approach of rights and enforcement related to IP. TRIPS lays down a provision, in regard to patents which states that *"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."*[12]

Patent eligibility and patentability both have been an issue in question whenever the debates in regard to software or any other modern technological innovation comes into the picture.[13] However, as far as the intention of the member states is concerned, which can be argued from the agreed terms of the agreement, as stated above, the protection accorded was to be made available equally to every field of technology.[14] The clause nowhere restricts the scope of 'invention' and thus the agreement does not contain patent eligibility criteria *per se*, but it does have a provision for patentability check,[14] and there exists no explicit exclusion of protection for software.[15] Because of this provision, the member states have used discretion to limit the scope of 'invention' through definition or by providing non-patentable subject matter. However, TRIPS, in its provisions related to rights protected through

copyright, includes protection of source code and object as a subject matter for copyright protection,[16] as literary work, and grants a protection as accorded to such works under Berne Convention 1971.[16]

However, due to behaviour code dichotomy which can be attributed to the software, there have been arguments in regard to incapability of protection for the same through copyright. It has been further argued that the actual value of software depends on the consumer experience and thus, emphasis is on protection of source code, which is humanly readable.[17] As TRIPS has failed in recognizing either inclusion or exclusion of patent as a subject matter for patent, the issue is being decided on national level through various guidelines, thereby leaving the questions raised still answered.

**PCT: A Spectator**

The Patent Cooperation Treaty of 1970 (PCT) created a platform for single international filling, wherein a single application could be considered as worldwide application. However, this was not to grant a worldwide patent, and the patentee still had to file individual applications in the countries wherein he/she wanted the protection. Therefore, as software is considered non-patentable in most of the nations, the problem still exists with PCT remaining silent on the issue.

## Issues Pertaining to EPC

The European Patent Convention (EPC),[18] among many other things, has specifically prohibited patenting of "*programmes for computers*".[19] However, there is an inherent limitation to this prohibition which states that the prohibition should "*exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such"*.[20] Therefore, in the absence of any proper definition to the term, reliance is made on the practice of the European Patent Office (EPO) in dealing such matters, and the same displays the fact that such software which brings in any effect technologically could be patented.[21]

However, even though theoretically if the patent survives the tests and is granted protection by EPO, then that should be binding on all the member countries of EPC, but due to presence of national legislations and domestic patent offices and courts, it cannot be said that the theoretic approach has been realised in EU and thus the question of patentability of software persists in both the regional and national domains in EU.

**Software Protection in USA**

The issue of patentability of software, in United States of America (USA), has been dealt with by the judgements in Benson-Flook-Diehr trilogy. All these cases happened in the 1970s and early 1980s, a time when software industry was in its budding state. In the *Benson's case*,[22] wherein the invention was in relation to conversion of binary-coded computer readable numbers to pure binary numbers, the patent office had rejected the grant of patent to the algorithm. When the matter went to Supreme Court, it propounded a three step transformation test for judging the process patent patentability and held that "Phenomenon of Nature, though just discovered, mental processes, abstract intellectual concepts are not patentable as they are the basic tools of scientific and technological work";[23] Furthermore, "Transformation and reduction of an article 'to a different state or thing' is the clue to the patentability of a process claim that does not include particular machines";[24] and "algorithms may not be patented so as to avoid the practical effect of "wholly pre-empting a mathematical formula."[25]

When a similar situation was faced by the Supreme Court, in *Flook's case*,[26] where the issue related to protection of updated alarm system, the patent was rejected by USPTO and the same was upheld by the Supreme Court. The Court held in this case that *"since algorithms are non-patentable, merely integrating them into a process that involves post-solution activity cannot bring the resulting process within the scope of patentable subject matter: the process is non-patentable "not because it contains a mathematical algorithm as one component, but because once that algorithm is assumed to be within the prior art, the application, considered as a whole, contains no patentable invention."*[27] This judgement was being followed as the test for patentability and was called subject matter test.

After a short time of three years, again the matter of patentability of computer based software was posed before the Supreme Court in *Diehr's case*.[28] The Court overruled its judgement in the matter and the subject matter test was done away with. However, keeping its judgment in line with the transformation

test, the court held that *"even if a mathematical formula embedded within a process is non-patentable, the overall process—taken as a whole and resulting in physical and chemical transformation—falls within the scope of patentable subject matter."*[29]

Following the judgement of Supreme Court as the law, the Federal Circuit Courts, which are generally termed as IP courts in US, were forced to lower the standards for patent eligibility tests, especially in regard to software.[30] Once the decisions of USPTO started being challenged and later turned in courts, in favour of protection, they came out with guidelines which stated that software patents could not be pre-empted in absolute use of an algorithm.[31]

## The Indian Scenario

Unlike US and EU, Indian patent jurisprudence was not based on case laws and therefore we can witness that there was no explicit exclusion of computer programs on the basis of subject matter. The old Patent Act of 1970 didn't include software in patentability criteria because of the existing jurisprudence of that time, which required an innovation to be a "manner of manufacture", and as software, along with other subject matters such as mental acts, algorithms, business methods etc. could not become a method of manufacture, they were not considered as "invention" only, and thus no protection was accorded to them. But after 1995, i.e. when TRIPS came, India had to make a shift from a regime that only protected process patents to one that protects product patents as well, and both of these were to be made available for every field of innovation.[32]

It was only after the Patent Amendment Act of 2002, that the same was brought in, with partial compliance with TRIPS and this excluded computer program from patentable subject matter through provision of Section 3(k). However, Patent Amendment Act 2005 tried to allow protection to software and an amendment to Section 3(k) was suggested, which read as *"a computer programme per se other than its technical application to industry or a combination with hardware; a mathematical method or a business method or algorithms…"* However, the amendment was rejected by the parliament and it retained the old position of Section 3(k), and as of today, it reads as "…computer programmes *per se…*"

As far as interpretation of '*per* se' is concerned, there has been a difference in opinion among various individuals who support or oppose the patenting of software. The general interpretation of the provision has been accepted as those inventions related to software which are not a program as such, could be patented.

Section 3(k) has been the bone of contention since its inception in the patent provisions. Though many believe that it had the best of intentions, as it provided a level playing field for domestic and foreign industry, others beg to differ and complain that the patent office has interpreted and used the provision too conservatively, leading to a situation wherein there is limited scope for application of this patent provision in the protection of software.

The strict application of the provision, which has been practiced by the patent office, has led to rejection of many applications on the sole ground of non-patentable subject matter. And even if they were being considered patentable, the mandatory inclusion of system and apparatus claims, for the purpose of granting patent to computer program did the rest of the work.

Yet, in the case of *Enercon India Limited, Daman* v *Aloys Wobben, Germany*[33] IPAB has held that *"the invention containing the steps for controlling the wind turbine, based on the external ambient conditions by using automatic control units like the computers, cannot be treated as computer program per se or a set of rules of procedure like algorithms and thus are not objectionable from the point of view of patentability."*[34] The same position has been upheld by IPAB in various other judgements as well.[35]

However, the patent office has issued a few guidelines for the purpose of examination of software or Computer Related Inventions (CRI) with a goal to maintain a similar standard of examination for every application made on that subject matter. A series of such guidelines have been issued and their content has been briefly discussed herein below.

### CRI Guidelines 2013

The guideline tried to define the scope of application of Section 3(k) by defining "technical effect and technical advancement".[36] Technical effect covered all such kinds of inventions which were a proposed solution to an existing technical problem and technical advancement covered new inventions in the field of technology.[37] It was clearly stated that for new software to qualify for patentability, it had to be applied on a new hardware.

The mandatory attachment of a new hardware to the novel software was criticized by the software

industry and thus the guideline was revised in the year 2015.

**CRI Guidelines 2015**

The new guideline made a change in regard to patentability of computer programmes by stating two things. It expanded the scope of patentable subject matter and stated that,

*"5.1 For being considered patentable, the subject matter should involve either*

*- a novel hardware, or*

*- a novel hardware with a novel computer programme, or*

*- a novel computer programme with a known hardware which goes beyond the normal interaction with such hardware and affects a change in the functionality and/or performance of the existing hardware.*

*- a computer program, when running on or loaded into a computer, going beyond the "normal" physical interactions between the software and the hardware on which it is run, and is capable of bringing further technical effect may not be considered as exclusion under these provisions."*[38]

Furthermore, it also enunciated a list of 'technical advancements', the application of any of which will entail an innovation to be classifies as patentable software. This list is as follows:

*"VI. i) whether the claimed technical feature has a technical contribution on a process which is carried on outside the computer;*

*(ii) whether the claimed technical feature operates at the level of the architecture of the computer;*

*(iii) whether the technical contribution is by way of change in the hardware or the functionality of hardware.*

*(iv) whether the claimed technical contribution results in the computer being made to operate in a new way;*

*(v) in case of a computer programme linked with hardware, whether the programme makes the computer a better computer in the sense of running more efficiently and effectively as a computer;*

*(vi) whether the change in the hardware or the functionality of hardware amounts to technical advancement.*"

While these guidelines created a situation of relief amongst the stakeholders, the same didn't survive for long and the guidelines were called back soon after.[37] Post consultation, a third guideline had been adopted by the patent office, in the same year itself.

**CRI Guidelines 2016**

The new guideline was brought about with an objective to "*bring clarity in terms of exclusions expected under section 3(k) so that eligible applications of patents relating to CRIs can be examined speedily*".

A three step was evolved to determine the same:

*"(1) Properly construe the claim and identify the actual contribution;*

*(2) If the contribution lies only in mathematical method, business method or algorithm, deny the claim;*

*(3) If the contribution lies in the field of computer programme, check whether it is claimed in conjunction with a novel hardware and proceed to other steps to determine patentability with respect to the invention. The computer programme in itself is never patentable. If the contribution lies solely in the computer programme, deny the claim. If the contribution lies in both the computer programme as well as hardware, proceed to other steps of patentability."*[39]

These guidelines also extended its scope of application to clauses (l), (m) and (n) of Section 3, along with clause (k).[40]

However, the restriction that has been added through this amendment lies in the fact that examiners have been instructed to refuse the grant if the invention solely lies on software and requires a contribution of innovation to be made to the hardware, in order to make the innovation eligible to be checked for the patentability tests.[41]

## Analysing the Practice of IPO

Regardless of the guidelines provided by the patent office, and in fact, since much before the first guideline came in 2013, a lot of patents have been granted by the Indian Patent Office (IPO). The data provided by the IPO in its annual reports also narrates the same story. But as it has been cumulated under the head of computer and electronics, it is difficult to differentiate exactly how many patents were granted for CRIs or business methods.

The trend and the shift in the same can be clearly understood from the data made available in Table 1, and depicted through Figure 1. After adaptation of

product patent, the number of applications being made in this subject matter was very high and the same was the case with the number of applications being granted patent protection. The year 2007-08 in itself witnessed about 28% rate of grant of patents, and the same was followed in the year 2008-09, with the rate being 27%.

However, the year 2009-10 witnessed a sudden downfall in the rate of patents being granted for computer and electronics innovations by the IPO and it came down to almost half of the earlier years, i.e. 15%, which further unfortunately went to its lowest ever in the year 2010-11 with a grant rate of merely 9%, out of all the application files for these kind of inventions. The next two years witnessed a relatively higher, but on an average quite lower grant rate i.e. of 13% in 2011-12 and that of 11.5% in 2012-13.

A change in this trend can be witnessed since the time CRI guidelines were being introduced, which brought clarity and uniformity in the patent office for the purpose of patent protection. After the CRI Guidelines of 2013, there was a slight rise in the number of patents being granted protection and the rate went up to 15.64% for the year 2013-14. However, the same argument was strengthened when the grant rate of patents was witnessed to be increasing annually, and it being that of 19.84% in the year 2014-15. Another piece of data which needs to be analysed here is that even though the number of applications were lower in the year 2014-15 than its consecutive years, the number of applications that were granted protection increased enormously. This change established a change in practice in the IPO where the office has now become more reasonable in granting protection to new innovations in this field.

With this data, it can be easily expected that the grant rate for the year 2015-16 would have been even much more, considering the fact that CRI Guideline 2015 had relaxed the provision for non-patentable subject matter related to software to a great extent.

Further, in absence of any separate information being available in regard to computer programmes, the data published by IPO in its annual report in regard to the companies which have made maximum number of applications in the field of information and technology can be of some reference. The same for the years 2011-12 till 2014-15 has been displayed herein below in Table 2.

The data shown above is the clear evidence of the fact of the amount of investment that is being made into R&D of software industry by the giants of the industry in order to be ahead in the market.

What has to be understood about this data is that it shows the list of top innovators over the years. Therefore the usage of term 'N/A' in the data should not be construed as if the corporation has not made any application in the respective year, but it simply signifies that the corporation was not able to make it to the top innovator list published by the IPO in its annual report.

However, regardless of everything, Samsung has shown immense success in this filling marathon and through both of its subsidiaries; it has successfully made its presence in the top list every year, with a total of 606 applications in the last four years. Another company which has shown tremendous effort in the field of IT innovation is TCS, which has managed to be in the top list for the last three consecutive years with a total of 478 applications during this period.

Considering the inherent interlinking between the IT sector and computer programmes it is not difficult

Table 1 — Patents application related to computer and electronics

| Year | Number of applications filed | Number of applications granted |
|---|---|---|
| 2007-08 | 4842 | 1357 |
| 2008-09 | 7063 | 1913 |
| 2003-10 | 7646 | 1195 |
| 2010-11 | 9594 | 892 |
| 2011-12 | 4225 | 584 |
| 2012-13 | 4424 | 510 |
| 2013-14 | 4410 | 690 |
| 2014-15 | 4285 | 835 |

Source: Annual reports (2012-13[42]& 2014-15[43]) published by Indian Patent Office

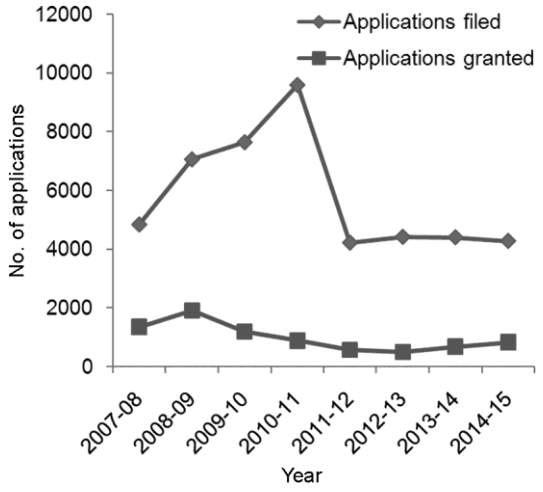


Fig 1 — *Applications filed* v *Applications Granted*

Table 2 — Maximum number of applications for IT innovations

| Name of the Company | Applications Filed | | | |
|---|---|---|---|---|
| | (2011-12) | (2012-13) | (2013-14) | (2013-14) |
| Tata Consultancy Services Limited | N/A | 162 | 169 | 147 |
| Samsung R&D Institute India- Bangalore Pvt. Ltd. | N/A | N/A | 84 | 233 |
| Infosys | 156 | 81 | 83 | N/A |
| Samsung India Software Operations Pvt. Ltd. | 88 | 135 | 66 | N/A |
| WIPRO Ltd. | N/A | N/A | 59 | 117 |
| Indian Institute of Technology (Collectively) | N/A | N/A | 59 | 50 |
| Tejas Networks Limited | 40 | 40 | N/A | N/A |
| HCL Technologies Limited | 22 | 36 | N/A | N/A |
| Ineda Systems P. Ltd. | 21 | N/A | N/A | N/A |
| Hindustan Aeronautics Ltd. | N/A | N/A | N/A | 57 |

Source: Annual reports (2011-12[44], 2012-13[42], 2013-14[45]& 2014-15[43]) published by Indian Patent Office

to conclude that much of the innovations that came into being so far are that of software or CRIs and the companies which are investing in R&D for such innovations are determined to obtain a patent protection over such innovations.

Thus, even though the law in regard to computer programmes has been very clearly restricted since the inception of Section 3(k), the practice shows a very grey side of the application, where the grant of protection to CRIs, even before the guidelines came, cannot be ignored.

## Conclusion

### Uniqueness of Software Industry

In the debate of whether to grant patent protection to software or not, many dynamics are to be considered and dealt with. It has to be understood that the software industry, just like any other industry, has its own economics, philosophies of conducting business and other direct or indirect factors affecting the same. The industry is unique in all sense of its existence, i.e. it has a unique research and development mechanism and units, and at the same time the production unit of the software is highly different from regular industrial productions. Cost of investment has its own approach and advancement process of the software along with mediums of distribution and redistribution is different from generally accepted and understandable forms and norms of inventions. Therefore, in order to make an argument in favour of or against grant of patent, a closer analysis of all these characteristics of software industry has to be made.

### CRI Guidelines

Thus, while analysing the provisions of the latest CRI Guidelines 2016, a question arises in the mind of the users as to if the bringing in of a new guideline after pulling back the earlier guideline of 2015, is really a step forward for the patent regime or not. The author is of the conclusion that instead of creating a more harmonious situation for software in the patent regime, the new guidelines are a huge disappointment as it has taken us back to the situation as that of which was provided under the CRI Guidelines of 2013. The industry which has been investing so much in the innovations of such products, feel amused on the constant nagging of the IPO and even the practitioners and jurists fails to appreciate the approach which has been undertaken by the IPO. Another issue of dissatisfaction lies in the fact that the suggestions of the interested parties were not taken into consideration while formulating these guidelines.

The guidelines so framed can be of help in disposing of the application while rejecting all the claims being made under the umbrella provision of Section 3(k), but the IPO fails to understand that the decisions are going to be challenged by the interested parties and it is going to increase the pendency of cases before the IPAB and the courts. The CRIs have to give a provision and clarity in regard to patentable subject matters and in the absence of this step from the IPO, innovators have to wait for a matter to go *sub-judice* and then judicial interpretation might have to save the day in the end.

### Technical Advancement

Technical advancement has been one of the biggest factors of consideration in the debate of software protection. Though the term does not has a definition in any statute, it has to be construed to cover all advancements which provide solution for existing problems, which has been brought about to exercise control over any other technical process or which is

capable of handling any technical device. When discussing about this, the examiner will have to pay close attention to the claims made in the application, in order to restrict the scope of protection to innovation only.

**Complications regarding Abstract Idea**

Another factor is the claims made in regard to software being an abstract idea. Again, it has to be noted that the term abstract idea has not been defined anywhere to have a rigid definition. However, if the product seeking protection has failed to provide any necessary limitations on its idea, then in absence of any such limitation it would be an abstract idea and thus non-patentable. Therefore, if the idea talks about anything which is created after application of a skill greater than ordinary knowledge, and if it contains/causes any sort of technical effect, then it shouldn't be considered as an abstract idea and should be patentable.

**Suggestive Solution**

Even though India has amended its patent law to bring it in consonance with TRIPS, the underlying jurisprudence has not seen much of a change. IPO needs to understand the change in scenario of technological advancement which plays a dynamic role in the innovations of today's era. It is not at all viable to apply the industrial age jurisprudence to the present day information age of innovation.

The patent office needs to go back to CRI Guideline 2015 for proper inclusion of software in the category of patentable subject matter. However, additionally, the author suggests that IPAB and courts in India should adopt the transformation test which has been laid down in US through *Benson-Flook-Diehr* trilogy cases with respect to patenting of software. This would in turn lead to clearing the grey zone and conflicts which are arising out of the technicalities involved in the invention and protection therein.

We need to understand and appreciate the fact that technology demands a real organic piece of legislation which has the tendency and flexibility to be amended in line with the changing trends and continuous evolution, in order to encompass the innovation process and to maintain sustainable growth in the software industry.

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*"(k) a mathematical or business method or a computer programme per se or algorithms;*

*(l) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions;*

*(m) a mere scheme or rule or method of performing mental act or method of playing game;*

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