

INTERNATIONAL JOURNAL OF LEGAL SCIENCE AND INNOVATION

[ISSN 2581-9453]

Volume 2 | Issue 3

2020

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Software Patent: An Overview and Drafting Guideline

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ABSTRACT

Patents are intended to protect and encourage creativity and innovation. Computer patenting or Software patenting is a promising field because top IT (Internet Technology) companies depend on software patents to protect their products. However, the drafting of software patents is a fairly unknown area. What a new patent attorney or patent agent needs to know is how to make a software patent application. This skill can indeed be extremely useful for inventors, especially significant inventors who are likely to have more than one invention, as well as professional, corporate inventors who work for companies that pay them to invent. While the inventors may reach to patent practitioners but the goals are the same i.e. the perfect way to write a patent application that usefully describes the boundaries of the invention. This paper addresses the questions on "How to become a patent researcher i.e. what information to collect to become a software patent" or "How to draft a software patent application" along with the position of software patent in India. This paper includes the basic skills required to become a patent researcher and moreabouts of software patent.

Keywords: *patents, software patenting, corporate inventors, patent attorney.*

I. INTRODUCTION

One of the most important things that any new patent attorney or patent agent needs to learn is how to create a patent application. This ability can also be extremely useful for inventors, especially serious inventors who are likely to have more than one invention, as well as skilled, corporate inventors who work for corporations who pay them to invent. Although the latter group (i.e. inventors) may be given the task of writing a patent application for the purpose of producing a solid first draft to be filed as a provisional patent application or forwarded to a patent practitioner, thus minimizing costs, the objectives are the same: to write a standard patent application that is usefully defined as a patent application.

Writing a patent application is not as straightforward as many would imagine. Indeed, the idea

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of a useful description of the invention, which seems easy enough to grasp on its face, is not as straight forward as it may appear, and why you can not simply file an abbreviated description of the invention and assume it is adequate to cover something.

Where a patent application is filed, the date of filing shall be granted and the priority shall be determined as to what is properly defined in the patent application at the time of filing. 'Appropriately described' is specified in the United States, which requires a description of the patent application which gives a detailed explanation of the contents and limits of the invention, inventions which can be performed without unnecessary experimentation in the related technical or scientific area, and which also discloses any preferences of the inventor with regard to the invention.

The following are the most popular sections of a patent application, along with a description of what each section ought to include.

1. Title of the Invention

The title of the invention should be put at the top of the first page of the specification and should be short, but technically correct and descriptive. It should also contain less than 500 characters. The terms "new," "improved" and "improvement" are not deemed suitable for the title of the patent and should not be used at the beginning of the title of the invention. Similarly, Articles "a," "an" and "the" shall not be used as the first terms of the title of the invention and shall be removed.

2. Cross-reference to similar requests

In the case of applications submitted on or after 16 September 2012, a clear reference to any prior application is stated to have priority to be included in the application data sheet. For applications filed before 16 September 2012, a clear reference to a prior application can be made either in the application data sheet or in the first sentence of the specification of a newly filed patent application following the title of the application. Despite the fact that the applications submitted today are no longer legally capable of claiming priority by providing cross-references in the patent application itself, this remains on the list of preferred parts of the application in the Manual of Patent Examining Procedures, and maybe because that's how many patent lawyers have always done it, they're still doing it this way today.

3. Statement on federally funded R&D

Where there is a government interest in the invention, a declaration on the rights of inventions under federally funded research and development is generally included in the patent

application. The declaration usually contains the name of the government agency and the contract number whether the technology was produced by or under contract with the government agency.

4. Background of the invention

The background of the invention shall be broken down to include:

Field of the invention, which is a statement which generally defines the field to which the invention claimed belongs and which may include the meaning of the patent classification in force; (2) Overview of the related art. There are several drawbacks linked to the background of the invention. In fact, the biggest one might be the actual recognition and discussion of the state of the art and the inclusion of concrete examples. This is not something an accomplished patent lawyer can do, because if you admit that something is prior art, it becomes a prior art time. Moreover, after *KSR v. Teleflex* 2007 was decided by the Supreme Court, it has become easier for patent examiners to dismiss claims as being obvious. Although it was a long subject for another day, this caused Backgrounds to become incredibly short.

5. Summary of the invention

"The subject-matter of the invention should be represented in one or more simple, concise sentences or paragraphs."

Frankly, this is a mistake, I guess. Although there is no need to write a novel, or even a screenplay, it is a lost opportunity to try and keep the Description of the Innovation Short and succinct. The Description, if properly written in order to evaluate the essence, function and intent of the invention, will offer a great deal of assistance to those who want to understand the invention and what the patent will cover in the future. This is valid since the Description is written in simple, easy-to-understand words. The explanation was meant to be straight forward, not written in legal form in particular.

The description of the invention should be compatible with the alleged invention and should be more than a mere declaration of the subject-matter of the invention, although it is appropriate to state the objectives of the invention.

6. Short synopsis of the drawing

Although there is no clear need or obligation to hold the overview text, there is no need to do anything in this section other than to be succinct. In the Brief Overview of the Drawings, all you can describe what the drawing is like if you put a caption on the drawing. Such figure no, or at the top of or bottom of, etc.

7. In depth description of drawings

A detailed description of the drawings is accompanied by a brief summary of the drawings. This thorough description shall allow those skilled persons in the related art to make and use the invention without unnecessary experimentation. The applicant is usually allowed to use his or her own language, as long as it can be understood.

Reference characters used in sketches are referred to in the text so that the reader can look at the sketches and read the text to understand what the author is talking about, as would be the case for a well-written instruction manual about how to put together anything that needs to be assembled. The definition is a dictionary for claims and should provide explicit reference for all the words used in the claims, each of which is stated in the claims.

In everyday language, the easiest way to understand the idea of what one is attempting to do is to refer to the popular children's song "Skeleton Bones," which describes how all the bones in the body are related.

8. Claims

In particular, the claimant shall point out and explicitly assert the subject-matter he or she considers to be his or her creation. Unfortunately, there is not much that can be said regarding the language of the argument in a few words.

II. ABSTRACT

The description of the report must be included in each submission. The content of the abstract should allow the reader to easily assess the essence and substance of the technical disclosure and what is new from a cursory review. The abstract does not apply to the supposed merits or speculative applications of the invention and should not equate the invention with the prior art.

Where appropriate, the abstract should contain the following: (1) where the system or device is, its structure and operation; (2) where the article is, its method of manufacture; (3) where the chemical compound is, its identity and use; (4) where the mixture is, its ingredients; (5) where the process is, the steps. Extensive mechanical and design specifics are not needed.

Further analysis of the present position of the software patents in India compared to other countries. It also sheds light on the evolution of the law by discussing various judgments and Indian case law.

Trips and Software Controversy

Article 27 Paragraph 1 of the TRIPs states that patents may be granted for all 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. The issue of patentability and its exclusion is a controversial issue in the determination of the patentability of advanced technological patents. Article 27.1 of the TRIPs provides that patent protection is available for all inventions and patent rights can be enjoyed without discrimination in the field of technology. This clause does not specify the exact meaning of the term. However, it refers to patentable criteria such as novelty, inventive step and industrial application. Article 27 Paragraphs 2 and 3 also refer to exclusion from patentability. In neither of these paragraphs it has been stated that the computer programme or software should be excluded from the patentable subject-matter of patentability. "Apart from this, computer software is mainly protected by Article 10 of TRIPS. It states that the source code and the object code are protected as literary works under the Berne Convention 1971. The dispute over the protection of software arises in relation to the issues of copyright or patent protection. The TRIPs Agreement refers to the copyright protection of object code and source code. It is difficult to protect computer software under copyright protection because of the basic difference between software and traditional literary work." The copyright protection of software is opposed because of the behavioural code dichotomy. According to Pamela Samuelson, the actual value of the computer programme lies in the source code rather than the object code.' It depends, in particular, on how the consumer experiences the software and how it works, how the programme behaves, while the TRIPs Agreement provides copyright protection for objects and source code, it does not protect the value of the programme's behaviour. Thus, until today, the question of patent protection for pure software or its technical application or physical manifestation remains unanswered. Different countries have their own laws and guidelines for protection of such software-related inventions.

III. SAFEGUARDING OF SOFTWARE

Software may be divided into different groups, such as commercial, shareware, freeware and public domain software, and may be protected under different laws based on their industrial application. Commercial software is protected by copyright and the user needs to purchase the software. Shareware software is available at a cheaper rate. This software is free for testing and trial. Freeware software is free to use and make copies. In the case of commercial, shareware and freeware, no one can change the software code or use it in another programme without the permission of the copyright holder. Public domain software is not copyrighted and can be used without any restrictions. It can be copied and used in a different programme. Software is more or less linked to mathematical methods, algorithms, and can be categorised as software with

specific hardware, system software, and application software. Traditionally, therefore, software can be protected as copyright, but with the growth of industry and advanced application, it can also be protected as patents. The dividing line between copyright and patent is very thin in the case of software and computer-implemented invention. In the United States, as computer programmes can be protected both by copyright and patent protection, Congress and the Supreme Court have blurred the distinction traditionally made in the protection of computer-related inventions. There are three implicit exceptions to the eligibility of patents, the law of nature, physical phenomena and abstract ideas. In determining the patent eligibility of a method claim reciting the use of a computer as a limitation, the Federal Circuit examined whether a computer plays a 'significant part' in the invention or is merely 'a clear mechanism for enabling a solution to be reached more quickly.' In 2012, *Bancorp Services, L.L.C. v Sun Life Assurance Co. of Canada*, The Federal Circuit considered the patent eligibility of claims describing the method and system for 'determining the values required for the management of a stable value life insurance policy' and held that the use of a computer was not sufficiently 'integral to the claimed invention' to avoid patent ineligibility under the abstract-idea exception. With regard to the protection of software or computer-implemented inventions, there is always a debate between the expression of software in terms of the idea or the form in which the idea is expressed. Derclaye and Leistner have tried to distinguish between ideas and expressions in a computer programme. It's easy to overlap since the computer programme is new, inventive, and

In general, the industrially applicable will be original at the same time. However, the overlap will be reduced because the patent protects only ideas, while copyright protects only expressions. However, a programme that would not be patentable could easily be copyrighted. The other way around it's possible, but rare. Normally, the idea / expression dichotomy should ensure that, apart from this specific overlap, no other creation of copyright may be possible protected by patents, and vice versa. The European Commission's initiative for the Computer Implemented Inventions Directive is a positive step towards minimising confusion.

Settles the situation by looking at the four-step test to be applied in terms of patentability. Copyright protects the form of expression and not the idea itself. However, the Supreme Court of the United States in *Gotschalk v Benson* noted that the phenomenon of nature, although it has just been discovered, thought process and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work. In order to assess the patentability of the invention, one should look at the invention as a whole and not just the novelty of the invention.

IV. INDIAN APPROACH TO A SOFTWARE PATENT

In India, the Patent Amendment Act 2005 sought to introduce software patents. Amendment proposed in the Patent Amendment Act 2005 of clause 3(k) was 'A computer programme per se other than its technical application to the industry or its combination with hardware; a mathematical method or business method or algorithms. However, this amendment has been rejected by the Indian Parliament, which has chosen to retain Clause 3(k) as it stands. To strike a balance between the arguments for and against software patents. It was not possible, however, as the ordinance had not been converted into statutes and into statutes. The proposed amendments to the ordinance have been taken back. The review of the Draft Patent Manual (2008) shows that it seeks to make the technical applications of software patentable. The Manual of the Patent Office Practice and Procedure of the Office of the General Controller of Patents, Designs and Trademarks, accepted in Chapter 8.03.05.10 of March 2011, sets out the guidelines for patents laid down in Section 3(k) of the Indian Patent Act. These guidelines provide guidance that patents can not be granted for mathematical methods, business methods, algorithms and computer programmes only. Differences can also be found in the proposal patent manual and this final manual. The provision referred to in the proposal manual is not accepted.

As the Patent Act clearly states that computer software per se is not patentable, there are differences between pro-software and anti-software patent advocates. An important aspect of the invention is inventive step. Inventive step is nothing but a step towards adding value which is not commonly observed in the previous invention and can be considered as new innovation. In the Indian Patent Amendment Act of 2005, a new paragraph 2(1) (ja) replaced the existing definition of 'inventive step' as meaning 'a feature of an invention involving technical advances in comparison with or having existing knowledge.

Economic significance or both, and this does not make the invention clear to a person's skilled in the art. Inventive action is a key criterion of patentability that is of great importance to the patent law of a country. The attempt to redefine this term is interesting to all of us. In the original Act of 1970, 'Inventive Step' was defined as 'a feature which does not make the invention obvious to a person skilled in the art.' The explanatory note to Article 27(1) of the TRIPs Agreement states that 'inventive action' is synonymous with 'non-obviousness.' A large number of court rulings recognise what constitutes 'non-obviousness' as a criterion for patentability.

In its judgement in the case of *KSR International v Teleflex*, the Supreme Court of the United

States stated that inventive step is a step towards the application of balanced criteria for patentability.

The granting of patents. In his opinion, Justice Anthony Kennedy wrote, "The Results of Ordinary innovation is not the subject of exclusive rights under patent law. If this were not the case, patents might stifle, rather than advance, the useful arts. Indian Manual of Patent Practice refers to an inventive step or non-obviousness as a feature to search Invention involving technical advancement compared to existing knowledge or having economic significance, or both, making the invention not obvious to a skilled person in the art. Here, the definition of 'inventive step' has been extended to include the economic significance of the invention. To judge the inventive step, the following question must be borne in mind: "Would a non-inventive mind have thought of the alleged invention? 'If the answer is 'No,' the invention is not obvious. For the purpose of determining an inventive step, prior publication in the relevant field shall be included in the prior art form. In *Bishwanath Prasad Radhey Shyam vs Hindustan Metal Industries*, the Supreme Court of India discussed the inventive step and the obviousness of the invention. The Court held that the fundamental principle of patent law is that a patent is granted only for an invention that is new and useful. This is to say, it must be novel and useful. It is essential, for the validity of the patent, that it be the inventor's own discovery, as opposed to the mere verification of the patent. What was known before the date of the patent. The question of 'inventive steps' involves mixed questions of law and facts, and this must be the case. It was decided mainly on the facts of the case. In the case of *M / s Aditi Manufacturing Co. vs M / S. Bharat Bhogial Patel* (2012) of the Intellectual Property Appellate Board (PAB) of India revoked the patents granted, stating that there is no inventive step and that all the claims and specifications are based on the known inventions. The Board stated that, in that invention, the prior arts had the features of the invention and that there was nothing new in the features claimed as new. The invention had already been known and t here is no novelty or inventive step.

In *Enercon India Limited, Daman v Aloys Wobben, Germany Intellectual Property Appellate Board* discussed the invention containing steps to control wind turbines on the basis of external ambient conditions by means of automatic control units such as computers. The Board stated that the invention can not be treated as a computer programme per se or as a set of rules of procedure, such as algorithms, and is therefore not objectionable from the point of view of patentability. Section 3(k) of the Indian Patent Act has again been discussed by the Board of Appeal for Intellectual Property in *Yahoo v Controller and Rediff*, and by *Accenture Global Service Gmbh, Switzerland v Assistant Patent and Design Controller, New Delhi*, and another.

V. INDIAN PATENT OFFICE AND COMPUTER RELATED INVENTION

The Indian Patent Office published its draught guidelines on the examination of computer-related inventions in July 2013 to promote consistency and consistency in the examination of such inventions. "These guidelines incorporate various provisions on the patentability of computer-related inventions. These are the guiding principles to be adopted by the examiners when examining applications relating to computer-related inventions and software. The documents also state that these guidelines are not treated as a rule and that, if there is ever a conflict, they are not treated as a rule.

The provisions of the Patent Act of 1970 and the rules laid down therein shall prevail. The document defines, inter alia, 'per se' but the definition is not sufficient to clarify the ambiguity between the patentability of software. The draft guidance focuses on technical advancement and new hardware for the patenting of computer-related inventions. However, in all the negative examples set out in the Guidelines, no mention is made of which type of invention patents are granted. This is the main criticism in the Guidelines. Many law firms, patent agents and the industry are also critical of the need for new hardware. In most cases, the software is based on existing hardware to improve the performance and functionality of existing software. According to the guideline, the patent can not be granted in such cases. There's no new hardware out there.

Despite these guidelines, it is noted that many patents in the field of computers and electronics have been granted by the Indian Patent Office (IPO). The data provided in the IPO Annual Report is provided below for an idea. However, this data does not reflect the exact number of patents for software or business methods. The Indian Patent Office publishes an annual report on the status of the Intellectual Property regime in India. Although India is considered to be a software hub, fewer patent applications have been filed and very few are granted.

VI. CONCLUSION

India is one of the fastest growing economies in the world, including China , Brazil, Russia, South Africa and Mexico. It is projected to be the third largest economy in the world after the United States and China. As a cost-effective and labour-intensive economy , India has greatly benefited from outsourcing work from developed countries and has retained a relatively good manufacturing and export-oriented industrial framework. "Innovation and new technology will play a crucial role in making India one of the most desirable investment and business destinations.

Although the question of software patents was debated and settled by the Supreme Court of the

United States in the business of Alice Pvt. Ltd. v CLS Bank International once again struggled to address the question as to how to evaluate an abstract concept. In addition to this Judgment, USPTO issued preliminary review guidelines on the qualifications of computer-implemented abstract ideas for the subject matter. This is the Instructions for the follow-up of a two-part research test for abstract ideas set out in Mayo. The first is to decide if the argument is guided. To the abstract idea and the second to decide whether any element or combination of elements in the claim is appropriate to ensure that the sum of the claim is equal to much more than the abstract idea itself.

Emmett J. in 2013 of the Federal Court of Australia in Research Affiliates LLC v Patent Commissioner ruled that "in order to have a patentable process, it must create a patentable process, must produce product in which a new and beneficial effect can be found. In the case of computer programmes, it is important to look at the functionality of the software. Produce a practical and useful result so that more than just information is involved. "The New Zealand Patent Act, 2013 came into force in September 2013. It is clearly stated that the computer programme is not an invention and is not a method of manufacture.

While there are differences of opinion from various nations, there is unanimity that abstract concept and natural law should not be protected. But nowhere has it been established what an abstract idea is or when it when it becomes abstract or when it becomes theoretically useful in order to become a subject matter of patent.

Technical progress

The technical advance or technical achievement is the most important factor when considering the software-related invention patent. This term is not be defined in any kind of law. The software related innovation has a technological advance technical contribution when the program offers some solution to the technical invention is sue or if the software has been used to carry out any technical control of the technical process or if the programme is used to operate some technical instrument. In this case examiner has to specifically look into the the invention and its claims.

Abstract concept

Abstract Concept or idea has never been described anywhere. It is also difficult to define it in a clear set of words. Furthermore, its meaning may not be universally accepted. Notwithstanding this, it is important to describe the word 'abstract idea' in order to grasp the essence of the software patent. The abstract idea can be explained in terms of words, phrases or formulas in a patent application. Idea based on or extracting any fundamental principle or

mathematical principle may be considered as an abstract idea.

In the case of a software related patent application, the patent examiner must review the patent application in order to understand the shortcomings of the abstract idea. If restrictions are required, the abstract concept may be regarded as non-patentable. In such cases, therefore, greater creativity is required than an individual ordinarily skilled in the arts. A mere abstract idea cannot be patented. However, there is something more to be applied to the abstract idea, which gives it some important technical effect may be regarded as a patentable subject-matter.

Thus, compared to the world scenario and current developments in software and computer technology patenting, India needs to rethink its policies. The Indian Patent Office has released a draft guideline for the review of computer-related innovations, but further clarity is needed with other positive examples. There is a need to create awareness about IPR laws among the engineers, entrepreneurs, SMEs and technical institutions so as to increase the number of patent applications. All businesses should have their own separate innovation department, which focuses mainly on management, profit and enforcement. The role of software and computer technology in generating company revenue is increasing. It is therefore necessary to retain the right over the technology through the promotion of a creative atmosphere and culture.
