

Patentability of Technology

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With the rapid growth of economy, the technological advancements are reaching new heights. A new technological innovation is an intellectual property asset for a company and hence, the company would like this asset to be protected. It helps companies maintain their competitive edge as a patent would ensure that their innovation would not be used by a competitor. A patent would be the most valuable to a company, when the company's competitiveness is because of a unique feature of its product or service. A patent would also help a company recover developmental costs as other companies would not be allowed to use the invention.

The World Intellectual Property Organization (WIPO) has described a patent as an exclusive right granted for an invention.

A patent is only granted when the innovation is found to be new, novel, capable of industrial application and includes an innovative step. The US Supreme Court, in the case of *Parker v Flook*¹ has held that an invention which departs from previously available art only in terms of mathematical algorithm would be patent eligible only if the application is novel and non-obvious. Hence, a computer program would not be patentable if all it does is generate values even if the values output a physical result.

Novelty is the most important requirement for an innovation to be patentable. The subject matter of the invention must not be disclosed before the date of filing of the patent.

An inventive step means that the innovation must not be obvious. According to Section 2 (1) (ja) of the Patents Act, 1970, inventive step means feature of an invention that involves technical advance as compared to existing knowledge and that makes the invention not obvious to a person skilled in that art.

¹ *Parker v Flook* [1978] 437 US 584

Industrial application is an essential requirement in patent law as only those inventions are granted patents which are capable of industrial application.

Technology patents which are not related to hardware are generally classified as either software patents or business method patents. The Foundation for Free Information Infrastructure (FFII), a non-profit organization based in Germany has defined a software patent as a patent on any performance of a computer realized by means of a computer program.

The Patents Act, 2002 provides that computer programs *per se* are not patentable in India. A computer program is defined under Section 2(ffc) of the Copyright Act, 1957. According to this Section, a computer program means a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result. It is considered a work of creative act comprising an object code and a source code. Source code is the original code written by the computer programmer and object code is the compiled form which is read by the computer/electronic device to carry out the instructions laid down in the source code.

Section 3(k) of the Patents Act, 2002 provides that a mathematical or business method or a computer programme *per se* or algorithms are not inventions. It is copyright protection which is granted to software innovations in India. Section 2(o) of the Copyright Act, 1957, provides that literary work includes computer programs. Hence, a software can be protected as a literary work in India. The limitation of this protection granted by Copyright law is that the protection is only extended to the source code of the computer program which is to be submitted along with the application. The law does not grant any protection to the idea behind the invention and hence, a similar software with the same functionality but a different code can be developed.

In the absence of any guidelines relating to computer related inventions, the Office of the Controller General of Patents, Designs and Trademarks released the first Guidelines for Examination of Computer Related Inventions(CRI) in 2015. These guidelines were contrary to the provisions of Section 3(k) and allowed software patents if they produced a 'further technical effect'. The phrase 'further technical effect' was not defined in the Guidelines and was left to interpret at the discretion of the patent officers. Upon facing backlash by various organizations, these guidelines were recalled by the IPO in December, 2015.

The IPO released revised CRI Guidelines in 2016 after taking into various recommendations of stakeholders. The 2016 Guidelines provided for a three step test for the determination of patentability of software related inventions. These steps included, properly construing the claim and identifying the actual contribution made by the invention. Secondly, if the invention only contributed to mathematical method, business method or algorithm, patent was to be denied. Lastly, if it contributed to computer programs, the invention should include novel hardware as it is only when the invention contributed both the computer program and hardware, a patent can be granted. The term novel hardware referred to hardware with constructional novelty. The new Guidelines also provided that the inventive step in the invention must be a feature and they further defined the requirement of industrial applicability. The 2016 Guidelines went beyond the statute law by including the requirement of a novel hardware to obtain a software patent.

In 2015, the Delhi High Court in the case of *Telefonaktiebolaget Lm Ericsson v Intex Technologies*² had held that computer programs should not be completely excluded from patentability. The Guidelines stating that a software was not to be granted patent unless it was in conjunction with a novel hardware overstepped the mark and went against this Delhi High Court judgement.

The 2017 CRI Guidelines did away with the novel hardware qualification for a patent grant. It further deleted the examples of patent ineligible claims given in the 2016 Guidelines. The deletion of the novel hardware requirement has given discretion to the examiners to focus on the underlying substance of the invention. However, the new Guidelines offer the applicants options to exercise discretion in their applications while applying for software patents keeping in mind both the statute law and the CRI Guidelines.

A business method patent is an invention integrated with a business approach. According to the Guidelines for Examination of Computer Related Inventions 2017, business method inventions are non-patentable under Section 3(k) of the Patents Act, 2002. Despite this provision, business method patents are often granted by the Indian patent offices. In 2017 itself, four business method patents were granted in India.

² *Telefonaktiebolaget Lm Ericsson v Intex Technologies* [2015] SCC OnLine Del 8229

Facebook was granted two patents, one on method “for generating dynamic relationships-based content” in February 2017 (Application No.830/CHENP/2009). The other patent granted was on “user-profile data with third party applications” in April 2017 (Application No.6799/CHENP/2009).

In May, 2017, Google was granted a patent on “phase identification in an information retrieval system”.

It successfully reasoned that the invention provides a technical solution to a technical problem, and is not an algorithm or computer program to fall within the ambit of Section 3(k).

Similarly, Apple was granted a patent for “browsing data items with respect to a display screen associated with a computing and electronic device” (Application No. 461/KOLNP/2009). The tech-giant claimed that all the steps of the method are performed by means of the software. It argued that the method involves practical application that brings in improved technical application.

These business method patents were granted because these internet companies were successful in arguing that their inventions included novel hardware and hence are patentable. The term novel hardware not being defined anywhere, was interpreted at the discretion of patent officers before it the requirement of novel hardware from computer programs was deleted in the new CRI guidelines of 2017. The 2016 CRI guidelines were revised and released on 30 June 2017, deleting the requirement of invention including novel hardware as software companies felt this was an additional hurdle and made it more difficult to secure a patent in India.

Companies invest heavily in their Resource and Development departments to profit in the overly competitive market of the 21st Century. In return of these heavy investments, software developers expect adequate protection of their inventions which is not granted to them by Indian laws. This lack of protection may affect the research and development work undertaken by companies in India. Patent protection is an obvious medium of supporting and encouraging innovation, investment and in turn boosting the economy of the country. As India undertakes the mission of Digital India with the primary aim digitally empower the nation in the field of technology, spreading e-literacy and providing every citizen with an access to the internet, it is essential that new software are developed to achieve these goals. Hence, innovation of technology is indispensable and in order to generate confidence in the developers to innovate more, patentability of software innovations is pivotal.

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