The emergence of intellectual property rights (IPR) jurisprudence finds its origin primarily in the Lockean theory of property which for the first time brought into limelight, the necessity for recognition of individual property crafted out of the common resources by one's intellect and labor. From this starting point, intellectual property as it exists today has come a long way. The rights conferred by IPR jurisprudence finds reflection mainly in certain recognized areas namely patents, copyrights, trademarks, designs, semi-conductors and geographical indications. Each of these areas covers a wide number of fields to be brought under purview and the same has been recognized at a global level. However, the recent advent of software patents in certain developed countries have posed a serious question of adjustment and the same requires careful deliberation to find a possible way out.

Software technology is evolving faster and research in software is progressing rapidly. The software industry is an industry based on ideas. The idea and writing of a program though remains the same, the means and variants of its application differs. There is a novelty in development and application of an old idea to a new technology rather than coming up with an original raw idea itself. The objective of granting patent rights is to foster growth and a patent lasting too long would inhibit innovation.

The history of granting patents of software has started in the US through judicial interpretation. Though in the initial era the courts were reluctant in allowing patents on software treating mathematical algorithms as un-patentable under the US laws, however, the major thrust in favour of patenting software was given in the case of *Diamond vs. Diehr* which tumbled the past jurisprudential pillars in totality. The case evolved as Diehr developed a process for moulding raw, uncured synthetic rubber into cured precision products. The process involved the use of software in measuring and monitoring the process. In finding the patent valid, the court's fundamental reasoning was that a claim drawn to subject matter otherwise statutory does not become non-statutory because a computer is involved. The court added that the claims must be considered as a whole. The ruling implied that an algorithm contained in the patentee's software was not protected as an abstract idea, but it is protected as an application in

the rubber curing process. Therefore it follows that software in isolation remains non-patentable. Another important decision which enriched software patents jurisprudence substantially in the US was delivered in the case of *In Re Alappat*. The court in this case ruled that if software programming creates new machine then the general functioning of a computer switches over to a special functioning which receives instructions from the software installed. In another benchmark ruling, the Federal Circuit Court concluded systems using software could be patented even though the novel aspects of the invention did not reside entirely in the software but novelty existed in the system itself when taken as a whole. This decision was a significant one as it is said to have opened the floodgates for business method patents being granted on novel and distinct ways of doing business using computer software. Viewing the judicial trend with regard to software patents, the U.S. congress took the issue seriously and sought to protect software under the copyright regime. However, keeping the landmark judicial pronouncements in perspective, standards for obtaining patents were relaxed to a reasonable extent which added incentive to software developers to seek patents for newly developed software.

Although United States started recognizing patents for software programs, the action didn't seem to have impressed the patent regime governing European IPR jurisprudence. Rather it can be said that with regard to software patenting Europe and US are quite at odds on their respective policies governing the intellectual property. With the US aggressively permitting software patents, they were harder to obtain in Europe as they were subject to a narrow class of inventions and were subjected to a greater scrutiny. If spoken in a strict legal sense, European and various national level patent systems lay out that the computer-implemented inventions are non patentable.

After having a global perspective on the applicability of patent law on software, it is of essence that we should tread Indian IPR regime to find out the exact position related to applicability of patent laws on software innovations. The law governing patent regime in India is the Patents Act 1970. The said statute has come through a number of amendments from time to time. The Act recognizes patents on industrial arts and does not merely recognize ideas. The act provides for certain items which even though can be regarded as an invention are not patentable invention's as per the Act. The Act has been enacted not only to entitle one to claim monopolistic incentives from the innovation but also to ensure that the invention plays a role in industrial development of the nation. With this view in mind, the legislators have specifically provided as to what falls under the category of an invention and what does not. The main object of Patent law is to encourage innovations which have an aspect of public utility and to foster industrial development in India. A patent granted may be revoked later if the patent holder abuses the dominant position of the patent by not making its fruits available to the general public at reasonable costs. In such cases, the invention is subject to a compulsory license.

Under section 3, the Act provides for a list of items which may be considered as invention otherwise but can not be treated as invention for the purpose of the Act. Section 3 (k) of the Act provides that a

mathematical or business method or a computer program *per se* or algorithms are not patentable under this Act. Though a single reading of this provision may lead people think that it is established in India that software in India is not patentable, however it is not like that. In this regard there is an utmost requirement to elucidate further the term "***per se".*** The Act does not add this term after mathematical algorithm and hence there is no requirement to deal with this area as the intention of legislature ousting algorithms totally from patentability is beyond any kind of doubt. However, since the term ***"per se"*** covers mathematical or business method or a computer program, it is necessary that a reasonable nexus be drawn between the term and the areas concerned being computer programs which are nothing but a different nomenclature for software.

If gone into deeper fathoms of examining the legal base for software patents in India, one can surely realize some kind of similarity between the practices adopted in the European Union and in India. Since in both the patent regimes of India and European Union, software patents have caused hue and cry and therefore governments in both of these places have given much emphasis on the technical aspects. While Europe has emphasized on technical or functional aspects whenever it has come to determine patent rights on a software concerned, India too has been moving in the same path**.** In India too the patent office has adopted the practice of examining technical characteristics of an invention which is primarily governed by a software operation. In other words, an inventor of software in India, if capable of maneuvering the software in such a way that it produces a technical or mechanical effect or the invented software is associated to a mechanical system in such a way so as to be capable of producing a functional or technical outcome, such invention as a whole can be considered for grant of a patent provided that if fulfils the other elementary conditions of patent law being novelty, usefulness, industrial application, non-obviousness etc. Therefore keeping the above argument in light, it would be wrong to construe that software patents in India are not maintainable, rather it should be said that a software invention ***per se*** is not patentable in India. This position is almost well settled.

Law emerges from sovereignty of a nation and such sovereign power is beyond any question. It is always open for the government to bring amendments to an existing law in tune to emerging concepts that it feels as appropriate. Though at the present regime, software patenting is not allowed in India, however the government is always left with the option of incorporating such provisions to the existing law. Such an effort has already been made during the year 2004-05, where the government wanted to bring an ordinance to make software encrypted to optical disks and other hardware having industrial application as patentable inventions under Chapter II of the Indian Patents Act 1970. However, the effort met with failure as there was a fierce opposition from the public as well as parliamentarians. Now with the multinational software giants like Infosys Technologies Ltd and Tata Consultancy Services (TCS) voicing their demands in favor of patenting of raw software in India, it is going to be a herculean task for the new government to harmonize the conflicting interests manifested from two different segments of the same industry and bring in the required change in law so as to bring Indian Patent Law in conformity with the International Law.

The difficulty in reaching a policy to grant software patents and the impact of granting these patents in the absence of a policy are indeed far reaching. In the absence of a policy which classify patents on algorithms, techniques etc. it would take a very long time for the patent office to process a claim, and search for the 'prior art' making the system inefficient and unworkable. Long delays in processing patent applications and subsequent challenge procedure often makes filing for a patent an unwise option for small companies and individual software developers. The Patent Office may sometimes probably be not aware of granting two patents for the same algorithm because the descriptions in the patents themselves are quite different even though the formulas are mathematically equivalent. When patents are known in advance the software publishers have generally not licensed the algorithms or techniques; instead, they have tried to rewrite their programs to avoid using the particular procedure that the patent describes. Sometimes companies have often chosen to avoid implementing new features altogether. It seems clear that software patents are actually preventing the adoption of new technology rather than encouraging innovation. In India software patents are impossible. The argument advanced against patenting in India is that copyright law in India can adequately safeguard the interests of authors and as such no patenting would be necessary and patenting it would hinder innovation and development of new technology which can act as a launch pad to propel the economy.

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