

Protecting software

Software is too functional to be covered by copyright and too abstract to be embraced by patent law. So how can it be protected?

**By Shrawan Chopra and Abhilasha Nautiyal,
Anand and Anand**

Has the perfect method of protecting software in India been found? The answer is no, due to the nature of software. Software is considered to be too functional to be covered by copyright and too abstract to be embraced by patent law. Thus, the quest for an adequate means of software protection continues.

This chapter examines the existing methods of software protection in India by considering:

- software protection methods;
- whether copyright extends adequate protection to software;
- the patentability of software; and
- the perfect solution.

How software can be protected

The importance and value of software in this day and age are well understood. This can be seen not only from various facts and figures, but also from the recent “What Most Schools Don’t Teach” video that went viral on YouTube (www.youtube.com/watch?v=dU1xSo7N-FA). Microsoft, Google, Facebook and Twitter are household names and software is accepted as ‘bread and butter’ material.

In India, the importance of the indigenous software industry has long been recognised. Software is eligible for copyright and patent protection, as discussed in detail below. Further, trade secrets are protected in India under common law. While some software, like all IP rights, may qualify as a trade secret, the protection of software as a trade secret

is uncertain in India for a variety of reasons, including the public nature of the use of software programs, which is likely to prevent software from qualifying as a trade secret.

In addition, extra legal protection (eg, anti-copying devices) is used to safeguard proprietary interests in software. The recently introduced Section 65A of the Copyright Act 1957 punishes the circumvention of effective technological measures applied with the intention of infringing rights conferred by the Copyright Act. Sony Computer Entertainment Europe used this provision successfully in a case that it filed before the Delhi High Court to stop the ‘jail breaking’ of PlayStation 3 consoles (*Sony Computer Entertainment Europe Ltd v Singh*, CS (OS) 1725/2012).

Since the most effective protection for software in India is offered by copyright and patent law, these aspects are discussed in detail below.

Does copyright extend adequate protection to software?

In order to comply with the Agreement on Trade-Related Aspects of Intellectual Property Rights, in 1994 the Copyright Act was amended to include software expressly as a literary work. Section 2(o) of the act now defines a ‘literary work’ as including computer programs, tables and compilations, including computer databases. A ‘computer program’ is defined in Section 2(ffc) of the act 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 task”.

The term of copyright in a literary work is the lifetime of the author plus 60 years

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(Section 22 of the act). Acts that infringe the copyright in computer programs include the unauthorised reproduction, copying, adaptation, sale and rental of the computer program (Section 14(b) of the act).

As there is no mandatory registration requirement, and international protection is provided by the Berne Convention 1886, copyright is a viable mode of protecting software. Several software owners have waged successful anti-piracy campaigns in India by using both civil and criminal remedies. The import of pirated software is also prohibited in India and can be enforced through the recordal of rights with Customs (under the IP Rights (Imported Goods) Enforcement Rules 2007). The Indian courts regularly grant *ex parte* interim injunction orders, Anton Piller (search and seizure) orders for the seizure of pirated software and damages against infringers in software copyright infringement matters.

But what happens in the case of non-literal copying? A clever infringer may reverse engineer a computer program to arrive at a substantially different code that achieves the same function as the proprietary program, thereby not infringing copyright in the program. In fact, Section 52(1) of the Copyright Act on fair dealing appears to allow the reverse engineering of software: “The following acts shall not constitute an infringement of copyright, namely: the doing of any act necessary to obtain information essential for operating inter-operability of an independently created computer programme with other programmes by a lawful possessor

of a computer programme provided that such information is not otherwise readily available; the observation, study or test of functioning of the computer programme in order to determine the ideas and principles which underline any elements of the programme while performing such acts necessary for the functions for which the computer programme was supplied.”

Therefore, while copyright affords adequate protection against software piracy, the protection it provides against the non-literal copying of software falls short, leaving the functional aspect of software unprotected.

Is software patentable in India?

The basic three-part test of novelty, inventive step (non-obviousness) and industrial application is followed in India in order for a patent to be granted. Further, Section 3(k) of the Patents Act 1970 lists unpatentable subject matter; it limits the patentability of computer programs and provides that mathematical or business methods, computer programs *per se* and algorithms are not patentable.

While the law on the patentability of software in India has not yet been considered by the Indian courts, the Intellectual Property Appellate Board (IPAB) and the Patent Office have issued orders interpreting Section 3(k).

In *Allani v Controller of Patents* (March 27 2013) the IPAB upheld the controller’s order refusing an application for a method and device for accessing information sources and services on the Web. The applicant’s claim was that the invention reduced the time taken to access searched-for information and applied

technical procedures, such as the arrangement of the required information in a tree structure. The IPAB held that the invention did not relate to an efficient technique for accessing online information sources and services. Reducing the time taken was not a technical contribution and the invention was only a computer program, and thus was not patentable. However, the IPAB did not define the term 'technical contribution'.

In *Yahoo Inc v Assistant Controller of Patents* (December 8 2011) the IPAB rejected an application for a computer-implemented business method. The IPAB observed that the technical advance that was claimed over the existing art was merely an improvement in the method of doing business, and therefore the fact that there was an advance did not improve the case.

There is no uniformity in the Patent Office's decisions interpreting Section 3(k) of the Patents Act. For instance, a recent decision of the Delhi Patent Office refused to grant a patent to "a method of rendering a multi-layer graphical user interface and the user interface thereof" under, among other things, Section 3(k) of the Patents Act. The office's order stated that if the new feature comprised a set of instructions (a computer program) designed to cause a known computer to perform a desired operation, without the adoption or modification of its hardware components, then no matter whether it was claimed as a "computing device" or "a multi-layer graphical user interface", such method was not patentable under Section 3(k) (Order of October 24 2011 in Patent Application 5763/KOLNP/2005. Similar decisions were also passed in Patent Applications 965/DELNP/2004 and 6067/DELNP/2005).

In contrast, a patent for "a method for formatting multimedia programming information for electronic transfer" was granted by the Mumbai Patent Office (Order of June 28 2011 in Patent Application 10/MUM/2004). According to the applicant, the claims covered a technical process for ensuring file format consistency. The controller held that the claimed method was a computer-implemented technical process and did not relate to the implementation of the technical process. Therefore, the subject matter of the claimed method was not a computer program

per se and did not fall within the scope of Section 3(k) of the Patents Act. This invention comprised a set of instructions (a computer program) designed to cause a known computer to perform a desired operation without the adoption or modification of its hardware components – exactly what the Delhi Patent Office had previously held was not patentable.

In the absence of judicial precedent and uniformity in the interpretation of Section 3(k) by the Patent Office, the Manual of Patent Practice and Procedure of the Patent Office may shed light on the patentability of software in India (available at <http://ipindia.nic.in/ipr/patent/manual/HTML%20AND%20PDF/Manual%20of%20Patent%20Office%20Practice%20and%20Procedure%20-%20pdf/Manual%20of%20Patent%20Office%20Practice%20and%20Procedure.pdf>). With regard to the patentability of computer programs, the manual states that the first step is to check whether the subject matter of an application is a mathematical method, a business method or an algorithm. If the subject matter is none of the above, it must be determined whether the claimed invention is a computer program *per se*.

The manual explains the following in relation to patentable computer programs:

- If the subject matter is only a computer program, it is considered to be a computer program *per se* and therefore is not patentable.
- Claims directed at computer program products are computer programs *per se* stored in a computer-readable medium, and as such are not allowable.
- Even if the claims, among other things, contain subject matter which is not a computer program, it will be examined whether such subject matter is sufficiently disclosed in the specification and forms an essential part of the invention.
- If the subject matter of a patent application is not a computer program *per se*, it will then be examined with respect to other criteria of patentability.

Even the manual does not clarify the meaning of terms such as 'technical contribution' and 'technical process', which

have been used in various decisions.

The 'machine or transformation' test is followed in the United States, and qualifies a process for patent protection if it is tied to a particular machine or apparatus or transforms a particular article into a different state or thing. The test was formulated by the US Court of Appeals for the Federal Circuit; however, the US Supreme Court later rejected it as the sole test for patentable subject matter, but clarified that this did not indicate that anything which produces a "useful, concrete, and tangible result" was patentable. Although the 'machine or transformation' test has not been directly applied in India, the decision of the Delhi Patent Office discussed above appears to follow the test's rationale. On the other hand, it appears from the IPAB's decisions that India is moving towards the 'technical effect' approach followed by the European Patent Office. In some decisions, both the IPAB and the Indian Patent Office have referred to foreign decisions, especially UK and EU decisions, to interpret Section 3(k).

Is there a perfect fit?

While there is adequate protection against software piracy in India, the law regarding the patentability of software in India is nascent. A debate over *sui generis* protection for software is brewing, albeit slowly. Supporters of such protection argue that software is generally considered to be non-traditional subject matter for both copyright and patent law. Further, the commercial lifespan of software is limited by the rapid pace of technology, and the lengthy patent grant process is likely to defeat the very purpose of protection. The long-term protection offered by copyright is likely to stifle further development of software, as an improved version may qualify as a substantially similar work. ●●●●●●

Anand and Anand

First Channel Building, Plot 17A, Sector 16A

Film City, New Dehli 201301, India

Tel +91 120 405 9300

Fax +91 120 424 3056

Web www.anandandanand.com



Shrawan Chopra

Partner

shrawan@anandandanand.com

Shrawan Chopra is a partner in the firm. He has been associated with the firm as an attorney since 2006 and his field of expertise is litigation, with a special emphasis on patent litigation for the last couple of years.

Mr Chopra obtained his master's in intellectual property from Franklin Pierce Law Centre, United States, his undergraduate degree from Delhi University and his law degree from Agra University.



Abhilasha Nautiyal

Associate