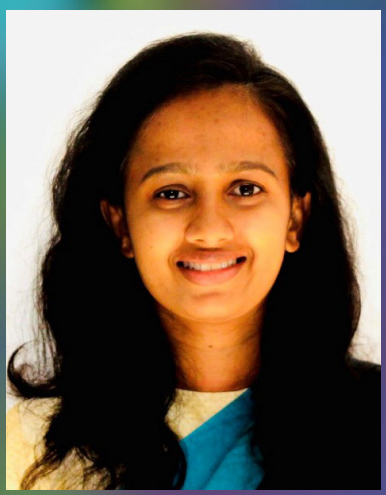
Intellectual Property Regimes in Software Industry and Trends in Software Licensing

Prof. D.A.I. Dayaratne
Department of Accountancy and Finance
Faculty of Management Studies
Sabaragamuwa University of Sri Lanka



Ms. A.W.G.C.N Wijethunga
Lecturer
Department of Accountancy and Finance
Faculty of Management Studies
Sabaragamuwa University of Sri Lanka

In the 21st century, the knowledge is regarded as the most valuable asset, which invariably generates enormous value for the economies in the world. In the global innovation landscape, it seems grammatic advancement in innovation in the field of Information Communication Technology (ICT) and exceptionally software program developments take the lead. As revealed by World Intellectual Property Organization (WIPO) in the recent past, more intellectual property (IP) applications on software have been intensively filled in the world across jurisdictions and regions. In the current ICT-driven society, people tend to use electronic devices embedded with software programs expensively. The software programs facilitate the functionality of such devices to a greater extent. The magnitude of contemporary development in the ICT field is well exemplified by the most valuable technology-based brands in the world, namely, Apple, Amazon, Google, and Microsoft. These companies have made tremendous

achievements with the IP portfolios of different forms they have developed or licensed from another party. The software-based IP is a cash cow to these companies, and that is the secret for the incredible global visibility of those companies. Therefore, the value relevance of software programs is becoming very important day by day for emerging entrepreneurs and as well as for multinational companies.

However, the public is little aware of emerging legal issues and business models associated with the software developments. The software programs become intellectual property upon gaining protection under copyright law and/or patent law. The software programs are protectable as copyright and patents within these legal frameworks subject to some conditions. The popularity and the wider usage of software programs are fueled by the Free & Open-Source Software (FOSS) initiative, which began in the 1980s. The FOSS initiatives warrant enormous benefits to the software development ecosystem and for the advancement of innovation in the ICT field. In the view of harnessing the FOSS benefits, countries develop new policies to bring FOSS-based strategies to institutionalize it for the public sector governance and social welfare.

This article initially sheds light on the characteristics that need to be fulfilled to get IP protection for software programs. Afterward, it focuses on the current modalities of the software industry with a specific focus on the proprietary software license and FOSS Licenses. Finally, the discussion will be directed on the benefits of FOSS-based software and how FOSS contributes to social welfare and public administration.

Importantly, the overall objective of this article is to distinguish the IP regimes of software programs and trends in software licensing in the world.

IP Protection Regimes for Software

In most of the jurisdictions in the world, Computer software is inexplicably qualified for protection as copyright. Globally, copyright law has been harmonized accordingly; literally and artistic work is protectable as copyright in every part of the world. In most of the jurisdictions in the world, the software programs are also clarified as literal work. Therefore, as literal work, a computer program is protectable under copyright law. Moreover, the Berne Convention and Trade-Related Aspect of Intellectual Property (TRIPS) provides legal grounds for protecting software and computer program as copyright. Another very frequently asked question is whether computer software programs are patentable. To answer this question, if the computer software fulfills the patentability requirements, novelty, inventive steps, and industry-relevant, it is patentable under patent law. However, legal provisions on the patentability of software programs vary across jurisdictions. The global standard on this concept is yet to be harmonized.

Software Patentability and Exclusions

The novelty is not an issue for the patentability of software as protection is often sought for new bits of software. However, most of the patent applications on software programs are rejected on a lack of inventive steps. In general, software program evolves as a result of incremental changes or improvements. These modifications are more prone to be obvious to a person who is working in the same field. As it violates the necessity of the non-obviousness of the invention, there is a high chance of rejecting the patent application during the examination. Apart from the above criteria, there are some exclusions for the software programs. The software programs exclude from patentability unless the software-based invention provides technical results. Probably, it should be a computer-related invention to fall into the patentability scope. Another exclusion is the software creation should not be a method. For instance, if it is a method of doing business, that will be excluded from patentability. However, as the patent right is territorial, it is required to look at country-specific patent laws to get more detailed information on this.

However, the public is little aware of emerging legal issues and business models associated with the software developments. The software programs become intellectual property upon gaining protection under copyright law and/or patent law. The software programs are protectable as copyright and patents within these legal frameworks subject to some conditions.

Commercial vs. Free and Open-Source Software (FOSS) Models

In the current business setting, computer programs generate lucrative business models for the matured and start-up businesses. The computer program development as a business strategy has taken a new turn in the recent past (over 15 -10 years) with the FOSS initiative. The software industry enjoyed a monopoly in the early days and kept the source code as a business secret. The developers did not share the source code with the license, and this business model was called a proprietary software licensing model. However, in the recent past, a new trend started among computer software developers and practitioners, under which the source code of the software opens everyone to use.

“In the current business setting, computer programs generate lucrative business models for the matured and start-up businesses. The computer program development as a business strategy has taken a new turn in the recent past (over 15 -10 years) with the FOSS initiative.”

FOSS Licensing

In the global ICT- based business environment FOSS licensing is credited as a very popular trendy business model. Contrary to the proprietary software license, FOSS license gives more freedom and flexibility to the licensees and users with more freedoms. The four-software freedom documented by Richard Stallman in 1991, gave a meaningful definition to FOSS licensing.

a. FOSS license rants the user to use the software program for any purpose (Freedom 0)

b. Study the program and adapt it as needed by one’s use (Freedom 1)

c. Freedom to free distribute copies (Freedom 2)

d. Freedom improve the program and publish with one’s improvements (Freedom 3)

This definition demarcates the characteristics that are essential for a FOSS license, and it is used by the FOSS community to distinguish the FOSS from proprietary licensees. In case the absence of one freedom in a license will lead not to recognize the license as FOSS, and it will fall into a proprietary license. Historically, the FOSS idea was conceived during 1988, under a lot of criticism from commercial software developers like Microsoft and some termed the FOSS as an intellectual property killer. However, as time passes, this philosophy gained wider acceptance after realizing the societal, economic, and technological benefits of FOSS initiative.

Copyright Protection of Software

As stated previously, copyright protection is the most possible option for software. However, as similar as to the requirement for other forms (literal work) of copyright protection, the idea needs to be expressed in an appropriate way about the novel software solution. The expressed idea essentially should be novel and which should be a result of the intellectual thinking of the developer.

Generally, as stipulated in copyright law mere ideas not come to the scope of copyright protection, instead of idea needs to be expressed any form to qualify for copyright protection. Even though the copyright protection rules and guidelines are well documented in the Berne Convention and TRIPS for other literal and artistic work, there is not any globally agreed protocol yet on software. This is mainly because the software protection is very recent and postdated to the above treaties.

However, World Intellectual Property Organization’s (WIPO) copyright treaty has issued some guidelines to a certain degree as to how software protection fits into the above protocols. This article is not going to nail into technical details of those sources, as the scope of this article is very precise.

Copyright vs. Copyleft

Copyright exists to protect original contributors' rights as literal work, and it prevents others from copying or selling property owners' rights. It also infers that anyone who wants to use the copyrighted software needs to get permission from the original creator of literal work. Conversely, the program developer's wish is to leave the program for free use; the best way is to pass it to the public domain as an uncopyrighted program. Software program which is in the public domain is not only freely accessible to anyone to use for any purpose but also allows to modify and customize fit it into ones need. The other peculiarity of uncopyrighted software programs is that downstream users can pass the software program as a proprietary software program after adding modifications. In addition to the aforementioned four software freedom, the copyleft notice further cements the freedom to modify and redistribute the software. In other words, the copyleft provision further ensures the right of the downstream uses' right to use the original source code and the modified software code.

Benefits of FOSS Models

The benefits of FOSS persuade the attraction of more and more developers as well as users worldwide. Compared to traditional proprietary software, the FOSS community enjoys enormous benefits in terms of technical, socio-economic, and legal context. Technically, the quality and reliability of FOSS are very high as several individuals contribute to the advancement of the software program. As the FOSS allows many to contribute and progress, the development and deployment are very fast. Given the intention of sharing the source code, others can develop a customized software solution to their specific issues. Apart from technical benefits, FOSS also brings enormous economic benefits. Unlike proprietary software licenses, there is not any licensing fee or royalties, or sometimes a nominal fee. It gives an accessible ground for small entities to afford FOSS licenses. With the customized FOSS-based business solutions, emerging entrepreneurs can form their own start-ups. The FOSS licenses are not subjected to tough legal obligations; as a result, the legal fees are negligible. Also, FOSS is less likely of infringement cases, given the reason the software program is freely accessible to anyone for any purpose.

Policy Road Map on FOSS

The government intervention and upheld policies are imperatives for propagating the FOSS initiatives among the wider stakeholder community. The government policies should be directed to supply-side inducements and demand persuasion regarding FOSS. It is also vital to make sure the accessibility of downstream communities in the country through policy directions. A wider ICT-based human capital development is an important and key advantage of FOSS. Also, more publicly funded research-based software programs should be opened to public use as FOSS with policies. Designation of software program as FOSS enables the government institutions and private sector to use it by customizing according to their requirements. The government policies on tax incentives should be in the forefront to relieve software developers who subsequently opens them as FOSS.

Concluding Remark

This article precisely explored the IP regimes for a software program. The software programs are protectable as copyright and patent in most of the jurisdictions in the world. The traditional proprietary software development has been outpaced by FOSS in the past two decades. Compared to proprietary licenses, FOSS licenses offer more permission and freedom to users. In the world now, FOSS-based software development and FOSS licensing are widely being used in view of creating enormous economic values for the nations.

"Copyright exists to protect original contributors' rights as literal work, and it prevents others from copying or selling property owners' rights."