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IMPACT OF OPEN SOURCE SOFTWARE (OSS) ON INTELLECTUAL PROPERTY: ISSUES AND CONCERNS

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ABSTRACT

The objective of this paper is to highlight on Open Source Software which signifies a paradigm change in the field of software development model. Nowadays individual developers not only produced but in a rising amount by firms that leasing programmers for their own purposes of expansion in open source software. They are to a great extent sheltered by IP laws though distribution is underneath terms which instead of being restraining endorse access for more contributory to open source projects in the framework of dedicated communities and how IP open source programs are positioned in the public sphere. Managing intellectual property in OSS is the alternative way of thinking and that is becoming increasingly popular in several aspects of software engineering activities. The misconception of wide-ranging method of open source software (OSS) concerning IP Laws and emphases on specific issues that originate from the collaboration of OSS mode To achieve its end in a novel way how IP impacts on the OSS model are conferred in this article

KEYWORDS: *Intellectual Property Rights, Open Source, Licensing, Copy Left, Open Patent*

1. INTRODUCTION

"Open source" software (OSS) which is openly accessible and its source-code of the programming work which express in unambiguous and also freely offered. If we consider intellectual property in the field of computer software, it seems like a substitute solution neither to the copyright nor patents which can bring a satisfactory balance among innovation incentives and knowledge diffusion. The OSS embodies a paradigm shift in the field of software development. In the mid-1990s, “Open Source” software, that formed in a entirely dissimilar way than other commercial products burst on the innovation scene. Usually workers are usually unpaid; limitations are there in administration and direction; and modest legal boundaries are there on consuming the product (Lerner and Tirole, 2004).

The model of open source software emphasizes on unobstructed accessibility to the source code of the program as conflicting generally referred ‘conventional’, ‘propriety’, ‘closed’ source code model. In contrary, the intellectual property rights totally different approach from open source software, emphasised on the capability for all the performers to advantage from the whole set of progresses and innovations from a public knowledge base. Obviously, in any civic good sense, the difficulties of probable free-riding and of the incentive to reveal such knowledge in so far as retrieving to information doesn't depend on having subsidised or not this raises immediately. The motive behind the dependency on the sustainability of accompanying business models and institutional chains the feasibility of this new way of IPR management

However, several legal and technical issues related to intellectual property (IP) of OSS is raised that merchants, clienteles, and even their lawyers may not be conscious of including the risk of hearing and other prosecution actions related to OSS. The development of open source is not subject to preconceptions based on development, education or experience. Thus, the larger groups are permissible to co-operate, and increases availability to many more resources by open source model, while maintaining the contract costs at a minimal.

The open source programs are placed in the public domain which is a misconception and those are very much sheltered by intellectual property rights, which instead of being restrictive promote access but distributed under terms. As an alternative of depend on the orthodox property model of partial access, calls programmers worldwide, to generously copy, share, and change the software, this new model of software is developed. All remaining outlets of intellectual property (IP) is challenged the new model of software development.

The intellectual property right (IPR) is one of the defining issues of the Internet era. The Internet has caused serious concern about protecting intellectual property, including music, movies, software, digital books, and video games at ease of accessing information through. Stealing of intellectual property has been an unending delinquent. The unlawful doubling of copyrighted software is called Software piracy. It has become a universal problem. Piracy of music, movies, and books is also a mounting problem.

The general approach of OSS towards IP laws are emphasized here in the article. The OSS model with the prevailing intellectual property rights (IPR) structure emphases on specific issues that emanate from the interaction. So, in this article how IP influences on OSS model and in what way OSS uses IP in a novel way to accomplish its ends are discoursed. Therefore, through the licensing medium this article shows how OSS propagates its model. Lastly, the article highlights the opportunity for corresponding development of the open source schedule in the light of property rights law.

2. Open Source and Proprietary Software

By delivering competition and the menace of access the open source confines the market power of patented code (Henkel and von Hippel, 2005, Bessen, 2004). This can happen in two possible scenarios. First, within a single market, proprietary code and open source can contest head to-head. Second, separate niche markets can be occupied. Both scenarios have been explored by commentators.

a. Competition between Open Source and Proprietary Software

The proprietary software can continue in competition with open source products is that users desire it, either for the reason that it is improved code or because it is user welcoming is one of the explanation. The proprietary software develops engrained by network effects (Casadesus and Ghemawat) approaching might be additional reason. Why proprietary software firms might have a excellence benefit have already been disclose several reasons. Open source software is welcome for anyone to have, is the first and foremost reason and more importantly the software not only free for everybody, but it is also permitted for anyone to copy, hack, modify, etc. Second, no one will bother if open source trusts on gesturing incentives, and a programmer accepts no advantage from the unspectacular task of making the code user friendly. Third, we have experienced that open source sponsors may delay lettering or enlightening code in hopes that others will involve in instead. We imagine corporations to turn faster every time it is lucrative to write good code as they want to be first to publish with a good product since corporations suffer the opposite coordination problem.

b. Market Segmentation

The open source and proprietary code may serve different niche markets even if open source and proprietary code do not contest openly. Bessen (2004) emphasizes that software package like Microsoft Windows books for only about 30% of all software expenditure. Often in open source communities, the remainder is customized software created by users. However, it is expensive creating customized software products. Bessen argues that proprietary firms must bargain a price after the software package is developed for the reason that it is tough to write an enforceable agreement for tailored software in advance. Aghion and Tirole (1994) notes that with a single purchaser, the purchaser will have a lot of negotiating power Keeping in mind this, the proprietary firm will be loathing to participate, and aspiring patrons will be obligatory to accumulate the software from open source segments. Bessen also claims that the customer will choose open source who keep a low price on quality or have highly exclusive needs. Users will continue to use proprietary products whose requirements can be fulfilled with easier applications.

3. TRADE SECRET PROTECTION

The distribution of designs and components of software is related with open source software among the users. A 'trade secret' communicates value to its container because of that very confidentiality is virtually anything that is secret. Trade secrets are protection of scientific and technical data, such as procedures, manufacturing methods and stipulations, designs, computer code. As a trade secret marketable and economic information may also qualify. Nevertheless, trade secret shield is still used for software. The identity of customer decision-makers, patron lists, customer purchasing preferences and necessities, marketing and business plans, pricing information, internal cost construction, supplier arrangements, and other alike non-public information can be protected. A trade secret might not be novel unlike patented technology. A trade secret, in fact, could signify nothing more than a gathering of otherwise publicly accessible information such as a customer list. The circumstance that individual mechanisms of the overall assembling of information could be gained from openly accessible sources does not prevent protection if the complete compilation is not willingly discoverable by competitors. Nevertheless, trade secret laws do not allow the holder the special right to adventure the secret information. Others might independently progress the information. By converse engineering, the product of trade secret owner's, they may even derive it. Thus, interpreting its application to open source software unachievable, its philosophy is in comprehensive struggle with trade secret law. So, it is considered by the Free Software Foundation (FSF) that circulation of code as trade secret a desecration of General Public License (GPL).

4. COPYRIGHT PROTECTION

Conferring to copyright law and subject to certain conditions, the original author/creator possesses the exclusive right to copy a work by default. Under specific terms and circumstances, the proprietor of a patent can license or sell the right to copy his work to others. Thus, violating confident terms and conditions lead to infringing on the copyright.

In open source licensing 'Copyleft' is a term broadly used. To ban others from duplicating, dispensing, or familiarizing copies of his work, copyright laws are implemented by an author. 'Copyleft' permits an author to duplicate, adapt or allocate copies of his work but the subsequent copies are guaranteed to certain license contracts contrary to the term 'Copyright'. Thus, with the help of an open source authorization generally the General Public License, copyright laws allow the inventors of OSS to brand code accessible. A foremost apprehension for the open source arena and a well-known accusation of the propriety arena is the penetration of open source code in propriety code and vice-versa. In SCO Vs IBM

litigation, a impassioned point of issue came where SCO claimed that IBM unlawfully integrating SCO's branded UNIX code into open source Linux operating system and subsequently claimed that Linux users required a authorization from them, for parts of the Linux code invaded their copyright and trade secrets.

Several companies were sued by the SCO Group sued for contributing UNIX code to Linux. The court eventually came into a judgement that 326 lines of code in Linux kernel were hypothetically trespassing. It is evident from the case cited above that imposing an open source license is exhausting copyrights laws in complete strength. Consequently, to defend the way the author's effort is used an open source license is clearly imposing copyright laws. Moreover, the existing copyright law can facilitate cumulative innovation which is clear indication of the success of OSS licenses. It is entirely dependent on copyright law though open source initiatives does not relinquish. Nevertheless, the present copyright law is enable of smoothing increasing modernization which indicates the success of OSS licenses.

5. TRADEMARKS

Prior to its widespread popularity the term 'open source' was not trademarked. However, open source designers displayed substantial cleverness in the custom of trademark law as an alternative applying to authorization symbols to specify that if a particular software fulfils with the requirements of the scheme of open source for example 'OSI Certified' spot attached by the Open Source Initiative with their Open Source description for software complying. Furthermore, the term 'Copyleft' however not recorded, has learnt a distinguishing trade use. Hence, by means of authorization marks advocate superior elasticity which avoids several disturbances like regulating of the mark and securing appropriate attribution and informing equal accountability on all the developers permitting better flexibility in practice and shifting identical onus.

6. PATENT PROTECTION

Patent law defends the perceptions of the invention unlike the copyright law that simply guards the freedom of expression. By the open source community software patents are viewed with cynical eye. Like any other invention currently some countries protect computer software if it is a appropriate subject for patent protection i.e., if it is a original and beneficial process involving an creative step and accomplished of industrial application. The topic such as laws of nature, natural phenomena, abstract ideas, and mathematical expressions of scientific truths are omitted from the protection patent. Because of technology is bottled-up against the requirements of the authors of the constitution, mathematical and scientific expressions are deprived of patent protection, if such patents are granted. The open source community strongly criticized software patents. To circulate software license as broadly as conceivable OSS model is designed. Categorically, patents are the most complicated type of intellectual property, as well as the most restrictive in nature. One must meet several requirements to patent an invention. Firstly, in the behavior of enhancements under copyright law and patent law there is a fundamental difference. That is because unlike anything that is already patented must be substantially, has already been on the market or has been written about in a publication. In fact, if it has been on the market or discussed in publications for more than a year one can't even patent his/her own invention. To make freely available software codes, free and OSS community imagines a model which includes the rehearsal of writing and discharging. The permission to adapt and restructure the software such a model offers a license to its licensee.

7. MORAL RIGHTS

Moral Rights are considered extremely pertinent to open source software mostly for the reason that the expansion of such a model is mainly reliant on the individual involvement of users/designers of the public as a whole. Moral rights of the authors in some countries are officially documented and defilement of open source licensing terms would establish a desecration of the author's moral rights. The transformer's action can still be controlled by the author based on Section 14 of the Copyright Act though the General Public License (GPL) covers a broad scope of protection. The author recalls a right to avert any damages of his work by restoring to such provision. Either jurisdictionally, or by restrictions to the rights themselves, moral rights in software are controlled. A degree of dormant substitute protection for OSS are provided by legal system that recognize moral rights, where defilement of the open source permitting terms would establish a violation of the developer's moral right.

8. OSS LICENSING AND IP

Under an "Open Source" license OSS is simply licensed software. Even though, there is no single agreed-upon explanation of what establishes an "Open Source" license. According to the OSI, the Open Source Initiative (OSI) counted over 65 licenses that accumulate the OSI's Open Source Definition. It is accommodating to split them into two groups while thinking about types of Open Source licenses, They are Reciprocal and BSD-style licenses. Open source viewpoint which when functional to software re-thinks the interpretation and interaction of numerous laws the present IP regime, inwards at an accommodation, and defends various components of computer distinctly despite the contradiction.

9. SOFTWARE: PROTECTION AND MANAGEMENT

The open source group stalwartly resists the present software patents administration as stated earlier. In context of software patents fundamentally most open source apprehensions originate from unproductive use and guideline of the patent system attached with lawful issues. The term copyright a main bone of argument is the patent term which however significantly shorter than much more all-encompassing in result due to its control nature. Though, the thoughts limited in software patents should be sheltered though it does not mean that the potential for harm is great. On the intellectual property front patents in software are relatively new development. With other developments which is needed to be smoothened out at the rough edge of development. However, exertions should be attentive on a improved system with advanced standards of inspection rather than removing patents as a intermediate of protection of software. It is mere subjunction and modification of the patent system lecturing these apprehensions is a opportunity instead of complete radical substitution.

The focus should be on the ends as an alternative of concentrating on the discussion as a means. Today, the software needs efficient and cost-effectiveness. If it be proprietary or open source it is illogical, not to inspire any accomplished manufacture mode. Although, both have their positive attribute and their shortcomings Moreover, either model would be more fruitful without the inspiration of the other is problematic to assess. Hence, both the modes cannot be done without that wants to be understood is that as things presently stands. Eventually, together balancing of commerce and user independence are required for both approaches. It is still immature to discharge one tactic in favour of the other is to recklessness a established method of nurturing innovation. However, a basic question to be responded is whether the open source programme would be an satisfactory replacement? Moreover, to integrate open source software harmoniously IPR regime is needed. Hence, the best option is harmonious construction of software protection.

10. CONCLUSIONS

Software programming up to the time they are the best available solution inclines to be built on de facto specifications and the case of de facto standards is that they find favour only. Earlier one-to-one basis computer programming was developed on, and cyberspace was still however to be recognised as a intermediate of connectivity. Though, it is not the case no longer. In various library operations the OSSs have been found very useful now a days. The cost is reduced by the solution of the OSS. To manage digital contents effectively libraries can make use of open source software. Software is mass produced rather it is seldom independently custom-made and the presence of the Internet which makes world-wide association very easily.

Further, by reducing IP benefits open source proposals a package of incentives. At the same time, to meet the library's needs this free software is continuously being modernised, transformed, and personalised. Such a model is not feasible and cannot function in every other arena where patent assistances lead and that must be noted. The time is suitable for tangible actions to be taken to appropriately express the characters of the OSS regime in view of augmented government interest in OSS. The ultimate focus of such committees has mainly been on obtaining and expansion of thought of the governments in numerous countries has framed the committees for this.

To the wider ‘open innovation’ idea and the same model is being functional in other fields, conspicuously biotechnology, bioinformatics, genomics, and policy modeling which increases the issue that there might be several seething complaints with the submission of current IP laws to developing fields that open source concept has evolved. Therefore, in the light of community development model it would be needed to appraisal the IP system thoroughly. With other development models there is not only intra-cooperation but also inter-cooperation model. The mode of development of OSS shares an antagonistic relationship with proprietary software. In certain case, it is correct that it can perform as a supernumerary for proprietary software. However, the time is suitable for concrete initiatives to be taken for appropriately express the parameters of the OSS regime in view of increased government interest. The principal light as respects creation and organization of the open source attitude, community involvements has become leading role. In spite of the rising use and much reception of OSS, however, the lawful rights presented to open source developer mainly unidentified. It is indeed to take an extra proactive action and vestibule for renovation of the software protection command altogether rather patent protection for software. Henceforth, it would be worthwhile to consider the IP system in the light of public development model as a whole

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