

UNVEILING THE DOMAIN CONFLICT – FOSS VS. IPR

Dr. Anurika Vaish
MBA-IT & MSCLIS Division, Indian Institute of Information Technology,
Allahabad, Uttar Pradesh- 211012, India

And

Dr Shveta Singh
MBA-IT & MSCLIS Division, Indian Institute of Information Technology,
Allahabad, Uttar Pradesh- 211012, India

And

Mr. Abhishek Vaish
MSCLIS & MBA-IT Division, Indian Institute of Information Technology,
Allahabad, Uttar Pradesh- 211012, India

ABSTRACT:

In the present times the most talked about issues in the knowledge driven economic system are Free and Open Source Software (FOSS) & Intellectual Property Right (IPR), both of which exist at poles apart. The question that prevails that is about the relevance of the either and that of the dominance of each one. The paper tries to probe into issues of general and specific relevance of FOSS and IPR as suppliers of certain set of utility and benefit to the user. It will also check the validity of the claim of FOSS and its licensing procedure comparing it with the user ship obligations of IPR protected products and services. The premise to the paper is that both FOSS and IPR have to exist and compliment each other ensuring a strong presence of resources in the public and private domain. The paper would certainly work on the area to validate the existence of conflict between the FOSS and IPR, or it is a mere false caution raised by groups pursuing either cause. Finally the paper would propose to demarcate the areas of dominance of FOSS and IPR and prove the utility at the socio-economic front.

Key Words

FOSS; IPR; Patent Laws; Public and Private Domain; Socio-economic Factors; Support Groups; Licensing Patterns

INTRODUCTION

It is not only surviving, but also thriving against the industry's dominant paradigm of Closed Commercial Software (CCS). In the last several years Open Source Software (OSS) has risen to become a serious threat to the commercial software industry. Open Source Software differs from traditional software in that the user has access to the software's 'source code' – the underlying code that software developers read, edit and compile. OSS has features that lend themselves to creating a local industry. Unlike physical goods, software is not sold outright. Instead, it is licensed to users with the copyright holders retaining "ownership" of their software. Licenses gain the right to use the software subject to certain restraints. The licensing provisions clearly have implications for firms hoping to earn a sustainable return on software production. Some for-profit firms specializing in Open Source Software distributions have attempted to distinguish themselves through the skill of their employees and the level of service offered by their support staffs, enabling them to charge recurrent subscriber support fees. Others offer more complicated open source products that package multiple open source programs together, such as a complete Linux Operating System distribution, along with an easy installation program. These companies can charge for the convenience of their package, but of course, other open-source providers could easily

replicate that package and lower the price. Another route taken by for-profit firms involves combining proprietary software with the open-source programs, allowing the company to charge higher licensing fees for the closed software. Regardless of the specifics an important point to bear in mind when considering the arguments for governments to use open-source as a development tool is an essence, a way of creating and distributing software. Rather than keep the human-readable program instructions called source code that is hidden from users, as traditional software companies such as Microsoft and Apple typically do, open-source programs give away the source code to one and all. That access enables users skilled in programming to become de facto software developers by adding to or modifying the software code and then redistributing it. Nor is Open Source Software

MODEL'S TUSSLE

The Internet's growth during the past few years has profoundly affected the way conventional model were defined. The two contrasting model i.e. the strong IPR model (private investor model) and the open science model (collective action model) are touching counter domain and making it difficult to understand either of the model according to conventional model. The strong IPR Model, which initially had been associated to the business model, has been shifted to the research, academic system and the business model which is for profit maximization has successfully adopted the open source. The most conflicting issues existing are the economic incentive, technological mindset and compatibility concern that have made a demarcation between the two models. The open source software movement traces its history to the formation of the Free Software Foundation ("FSF") in 1983. The FSF was formed with the goal of creating a free version of the UNIX operating system. The FSF released a series of programs in source code form under "GNU" name ("GNU" is an irreverent acronym that stands for Gnu's Not Unix). The GNU project did not actually result in a free version of UNIX, but did result in the creation of some popular tools for UNIX programmers, including the GNU C compiler and text editor. It also set the stage for even more ambitious free software development projects in the 1990s. The license agreement that accompanied the GNU software --known as the General Public License ("GPL") or "copyleft" license --was revolutionary for its time. It is written in a non-legalistic style with a breezy preamble and statement of

licensed to single users or companies in the typical fashion—users can pass on the software to others if they choose. Instead of preventing the software from being shared, open-source licenses dictate how the software is shared. It is also unique in that unlike virtually every other form of software that has gone before. The purpose of this paper is to examine the Open Source Software Phenomenon. Understanding the thrust area of both models and answering issues like the advocacy of IPR especially for the protection of software, highlighting the diffusion of open source into business and commercial process and the scientific researches which were traditionally diffused in an open science system are increasingly protected through intellectual property rights and specifically patents.

purpose. The GPL gives licensees broad rights to sell, copy and modify licensed programs, so long as licensees grant to downstream licensees the same rights to sell, copy and modify the modifications to the original program. Licensees are also required to make their changes available in source code form. For many years, the FSF filled a relatively small niche in a large and growing market for proprietary products from large companies. With the Internet's rise in the 1990s, there has been renewed interest in free software and a shift in development resources from esoteric development tools to products and technologies having a broader commercial appeal. In 1998, a group associated with free software introduced the term "open source" to emphasize a break with the pro-hacker, antibusiness past associated with GNU and other free software projects and to place a new emphasis in the community on the possibilities of extending the free software model to the to the commercial world. These new "open source" projects would exist in the mainstream of the commercial software market and include operating systems, such as Linux, the Apache web server, and the Mozilla browser.

On the other hand the strong IPR model with few institutional transformations has made a lucrative market, providing an environment to attract the investor, innovators etc for moving towards IPR. The growth rate of patent across different country is an empirical evidence for such transformation.

Firstly, the transformation in the IPR model like the constitution of dedicated courts, like court of appeal for the federal circuit (CAFC) for patent settlements, have reported a surprising result

in dispute settlement i.e. before CAFC it was only 62 % of the cases that were judged in favour of the patentee, which has gone up to 90%. Moreover, the decision of the invalidity of infringement has also increased from 12 % pre-CAFC to 28% post-CAFC. The Constitution of this legal body has been successful in resolving many of the renowned patent infringement case, gaining a trust over the protection that they had.

Secondly, at the international level the formation of the TRIPS agreement of 1994 was another big break – through both for the inventor and investors. TRIPS Agreement were focussing mainly the international standard for IP protection and dispute resolution in international platform

Thirdly, the reason behind a paradigm shift in the attitude of research scholars towards IP protection against conventional way of making the work available freely was due to the amendment in the Bayh-Dole Patent and Trademark. This amendment has broadened the limits and has made possible unlimited patenting and exclusive licensing for federal funded researches, the effect of which has given an upwards jump of almost 2.5 % in comparison with yesteryears. With the popularity of this amendment countries like Japan and Europe have also incorporated the following changes.

An additional benchmarking contribution for the growth of private investor models encompassing various other areas as a subject matter for patent like:

- Bio- technology
- Software
- Business methods.

The international initiative has made the procedure for applicants very easy with extension of duration giving a driving force for the IP investor community to pump up their investments.

These empirical transformations are evident with growing interest of the scholars demanding the protection of IPR for the novel work. The growth of patent alone in U.S has risen up to almost 40,000 within a span of just 5 years. The same patterns were evident across whole Europe and Japan with a moderate

growth rate. The concerns of the investors were evident from the rush in various patent offices. Added to this, international initiatives like World Intellectual Property Organization and India's Indra Gandhi Open University (IGNOU) which is the largest Open University in the world to have a joint post graduation diploma program in IP, are also driving the initiative. In the IGNOU, more than 300 students have already been registered within their first year i.e. 2004. Through video conferencing facilities, the professors across the world would be imparting this education

Both the models allow companies to make profit. The proprietary software domain is making money by selling the licences to use the software. On the other hand the open source community is making money by providing services, like advising client on the version that best suits their needs, installing and customizing software development and maintenance.

Both the models have their own merits and demerits. However it is difficult to make the comparison between the two. The key components to be kept in mind while evaluating the two models especially in software are:

- Reliability
- Quality
- Flexibility
- Project duration period
- Compatibility Cost

The follower of the open source community believes that because of the large community the development or the quality of the open source software is better, reliable. They also argue that because the software has been developed in various modules therefore the security reason has been properly addressed. Moreover, they believe that because the source code is available the threat of infringement doesn't arise. However, critics argue that the proprietary software is also reliable, flexible and secure. The investor community also believes that because the direct financial reward doesn't exist, hence, the interest of the developer would not be effective in improving the existing product and this would lead to poor project management in the

open source domain. Another issue associated with both the models is related with unauthorised IP usage of third party where both the models are silent as one the proprietary domain is getting popularity by the unauthorised access and the open source community is getting market capturing benefit. So far as the parameter-cost is concerned it is difficult to differentiate on the basis of switching over from one another. The most driving success factor of either of the two models is the compatibility issue. The team of both the models is developing models as per the commercial requirement with adequate tool of modularity.

The open source community advocates that by making the source code available it enables future new developments. On the other hand the closed community claims that open source is inherently insecure, as the principle of making the code available would help the hacker community to check out the flaws and to exploit it.

MODELS LICENSING ARRANGEMENTS

The licenses for most software are designed to maintain the integrity of a commercial vendor's intellectual property and ensure a suitable return on investment is possible. Supporters of open source software claim that this takes away the freedom to share and change the software as desired. Open source software is usually distributed under an arrangement that provides the freedom they desire. There are several licensing models for OSS. Some require that all changes made to the source must be freely distributed with the modified product. Other licenses permit an organization to make changes and keep the changes private. The most common license is the GNU General Public License (GPL), which is structured to guarantee any user's freedom to share and change the license software. The GPL applies to most of the Free Software Foundation's (FSF) software and to any other program whose authors commit to using it; the GNU Lesser General Public License covers some other FSF software but its use is being phased out. Currently the OSI lists 34 approved licenses.

The GPL is designed to make sure that users have the freedom to distribute copies of OSS software unhindered with all the usual rights, i.e. the source code is provided, the software can be changed or pieces of it can be used in new free programs and that

the user is aware that these rights exist. The user's rights are protected through allocation of copyright and provision of a license to give legal permission to copy, distribute and modify the software. Author protection is provided because the GPL ensures all users understand there is no warranty for the software. If the software is modified by someone else and passed on, the recipients know that they do not have the original. Accordingly, any problems introduced by others will not reflect on the original authors' reputations. The GPL also provide a mechanism to avoid a situation where redistributors of software could obtain patent licenses and, in effect, make the program proprietary.

Specific Licenses Traditional Open Source Licenses:

- GNU GPL (copyleft)
- Library GPL
- MIT X Window license
- BSD Style license
- Commercial "Open Source" Style Licenses:
- Netscape Public License --Mozilla
- Sun Community Source
- IBM Jikes
- Opensource.org
- Debian.org
- Apache.org

Intellectual property in the case of the proprietary software can be protected through government's created legal system. This law by means of protection can restrict the use of that property. The protection can be given through Patent law, Copy right law and Trade mark law as well. Since from the beginning it was a matter of debate, to consider a software as a literary work or as an invention to be covered under the patent law, Governments of different countries are of the view that software should be treated as "original literary work of authorship" and hence should be given protection as per the Copyright Act. The reason for this confusion was due to the traditional definition of considering utilitarian work (functional works that do something or cause another part or piece to do something) the same case is with software as it make other work done through its application. However, developed countries like Japan, U.S and European countries have amended their legislation system during the starting of 80's and considered computer software as a literary work which is recognized under the Copy right Act. It was due to

multinational software companies lobbying to set out international standard and to provide a uniform protection through out the world, there collective initiative and other international arrangements has given rise to the 1995 TRIPS Agreement, clearly stating the protection of software as a copyrighted work.

Computer programs were not patentable in any part of the world. The U.S supreme court has clearly rejected the grant of patent in the case of *Gottschalk Vs Benson* 1972(409 US 63) “held that computer algorithm could not be granted a patent”. However, nine years later in case of *Diamond vs Diechr* (450 US 175) 1981, the scenario has changed and the same court upheld software patent. A more recent case *Bank & Trust Co Vs Signature Financial Group, Inc* (1498 f 3d 1368) further expanded the ambit of software patent by allowing of what is known as “Business Methods Patent”. Similar situations exist in different countries as well. Some countries are of view that stand alone

MARKET DOMINANCE OF EITHER MODEL

Modification lead to success: the inherent characteristic of freedom to do anything with open source software has provided the community to explore, modify, and redistribute the software to the open world. This characteristic has a key role in this changing business environment which requires immediate change in system according to the market need. The dynamics of the market requires professionalism in business processing. Open source software provides the community to change the software according to their need. It enables the unlimited tuning and improvement of a software product. In fact it is perceived that no binary-only application can survive for more than 10 years without any change. It is also of the view that open source has large community to work upon and more intellect leads to a better solution.

NO RESTRICTION FOR USAGE IN A LIMITED WAY:

Open source software with this power manifests the dominance. For e.g. in case of proprietary software if the developer refuses to upgrade the existing software then the customer has to stick with

software is not patentable but software which is an integral part of some other machinery or invention can be patent.

Another parameter that is a key issue in case of proprietary software is what is known as Trade Secret. Trade Secret law doesn't function like that of patent and copyright although it covers issues like the software structure, architecture etc. so long as those ideas are not know and give a reason to believe that disclosure may fetch benefits to the competitor. The investor community / proprietary software community always wants to keep their source code protected. Hence, Trade Secret is a key issue for them in a sense that in case source code which is closed in proprietary software does get access of the code by others it can be duly protected through Trade Secret. Computer service manual are also protected through Trade Secret , Art 39 of the TRIPS agreement set down that all countries signatory to it must enact the trade secret legislation and in case if the Trade Secret is already enact, it should ensure to cover software as well. the old version of the software. The open source software overruled this situation and it will be a flexible platform for the user to easily switch over to other solution.

SINGLE MAN SHOW: The open source community has massive force and there is no single person to whom the future of the software is dependent upon. It is like a perpetual situation in which the customer doesn't have to be upon the mercy of the developers. For e.g. in case of proprietary software if the company closes down or in case of any other type of incident then the customer has to bear up all the consequential loss. Open source software effectively protect against this because if the group or company that originated the code decided to stop development it is always possible to fund another software group to continue maintenance and improvement without legal nor practical limitation.

PROPRIETARY DOMINANCE:

PROJECT MANAGEMENT: With the rapid advancement due to I.T. intervention in almost every sphere, the productive rate has gone up beyond limits, the disposal time of each process has reduced drastically. In other words the price of every second is touching sky high. Companies are struggling hard to achieve

their goals which can only be achieved by proper composition of planning, resource and other factors. Software processing is becoming a vital organ in any business organization and requires incorporation at proper time, delays lead to a devastating effect in the overall working of the organization. Proprietary software are well known as they are offered as a solution required within time frame. In case of open source software there is no personal interest for any community to develop the software within stipulated period of time. It has been observed that many projects ends-up without even completion. This is unfavorable for today's world that requires a speedy and timely solution.

NO FORKING SITUATION: In case of open source software (splitting the base source code in two different parts when consensus doesn't match. This leads to the establishment of community on different base code) so in proprietary software all the models are properly assigned to achieve the main objective. This can also be a reason for the fast development of software, as clear definition of responsibility and other parameter lead to enhance the efficacy of the organization

LEGISLATION INTERPRETATION: Analyzing the recent development in intellectual property legislation specially considering software as patentable and defining a concept of "Business Method Patent" has made an edge over for the proprietary software model. The concept raises issue for solving a particular problem to be considered under the domain of Business Method Patent". So in this case the community can be

SOCIO- ECONOMIC BENEFIT

The presence of resources in the public and private domain has had an overwhelming impact on the development and value creation at group level through integration of knowledge spread over vast domain. There are sufficient examples of product and utility development through utilization of existing knowledge and resources in the public and private domain. While considering the socio-economic relevance of either, it would be wise to consider the value chain generated by each one in the process of initiation and termination of the supply of such utilities.

considered as guilty of intellectual property. Although the issue of software patent is a problem for whole software industry but open source is probably the clearest case where it can be shown how they harm the regular process of software development. Proprietary Software Company has their license. With the closed system of source code it is easy to detect the infringement. Moreover, in case of litigation are the people who would be there for the purpose of defense. It is absent in another model.

RECONCILING THE CONFLICT

In the light of the patent and IPR issues looming large over the population and the business community of the world, a justification to the public – private domain conflict can be resolved be the reality that the social consciousness is not the result of the IPR regime but the individual intellectual products are outcomes of the social concern of individuals. To approach, there is no conflict as such as either is pursuing its cause in its defined territory and working hard to propagate its kind in the civic society. The public domain activists have to realize that the IPR propagators a only demanding their legitimate share of their intellectual labor and innovation as deemed fit by the law of the land, where as the exponents in the field of IPR have to honor the social concern of people strengthening the public domain. As it is evident that both (IPR & FOSS) of them are endeavoring to provide sufficient number of utilities to the society and henceforth prove their relevance in the social system.

CASE 1 PROPRIETARY PRODUCT:

1. Developed by Corporation
2. Distributed by Vendors
3. Licensed to User Only for a Term
4. Renewal of License
5. No Source Codes/ Limited Customization
- 6 Regular Updating for Renewed Customer
7. Service Support on Charge

STREAM OF ECONOMIC VALUE

Activity	Source	To
Development by Corporation	Developer	Corporation
Distributed by Vendors	Corporation	Customers
Licensed to User Only for a Term	Corporation	Customers
Renewal of License	Corporation	Customers
No Source Codes/ Limited Customization	Corporation	Customers
Regular Updating for Renewed Customer	Corporation	Customers
Service Support on Charge	Vendor	Customers

The terminal point at most of the sequences in the Stream of Economic Value delivery we find the customer in the case of the proprietary software product. To conserve this position and ensure continued supply of economic and intellectual value from the source the customer generates a perennial stream of revenue.

CASE 2: OPEN SOURCE PRODUCTS:

1. Developed by Groups
2. Distributed by Vendors/Groups
3. Liberal Licensing to User
4. Source Codes Available/ Open to Customization
5. Regular Updating for User Groups
6. Service Support on Charge/ Free

STREAMS OF ECONOMIC VALUE

Activity	Source	To
Developed by Groups	Developer	User
Distributed by Vendors/Groups	Groups	Users
Liberal Licensing to User	Institutional Bodies	Users
Source Codes Available/ Open to Customization	Groups	Users
Regular Updating for User Groups	Users/ Developers	Users
Service Support	Vendor/Developers	Customers/

In this case the terminal point and the point of initiation of the majority of operations is the user or the user group supported by institutional bodies dedicated for the same. The uniqueness of the situations represented by the array of activity and the revenue flow that is minimum is the current case. It represents a symbiotic system of growth through sharing of resources and knowledge, whereas at certain point the users and the vendors are involved in transaction of monetary nature.

CONCLUSION

The two domain approaches are have never contradicted each other but have been reasons of improvements in the other with reference to their applicability and relevance in the current structure of the industry and the economy. The open initiative can largely be attributed to the growing concern of the big corporations into issues like philanthropy and supporting or giving space for developmental activities in their existing utilities. The issue is not that of hostility but that of ideology, where competition is there to compliment not to condemn. These huge corporations are mass employer, while the groups perusing the open initiative are mass installers of skills

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