

# Know IP – The Stockholm Network’s Monthly IPR Journal Volume 3: Issue 5. July 2007

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## Commentary

### The complex (and maybe even impossible) job of IP policy-makers today – Helen Disney and Dr. Meir P. Pugatch <sup>1</sup>

In this issue of *Know IP*, we have decided to provide a more reflective commentary. Why? Because the recent developments in the IP world have highlighted the huge pressures that IP policymakers face in their day to day activities. We note that while our discussion concentrates on the EU, it can be easily applied to other countries.

Policymaking in the field of IPRs is becoming increasingly complex (some would even call it 'Mission Impossible').

The IP policymaker is exposed to enormous pressures and competing interests, both by external actors and by his own institutional surroundings.

Thus, for example, a certain policymaker in a given European Commission Directorate may not only be 'overloaded' by a huge amount of data and input from different interest groups, he may also find himself promoting an IP policy that is inconsistent with (and possibly even contradicts) other IP agendas promoted by his colleagues in other Directorates.

To this extent, the concept of a single and coherent 'institutional' policymaking agenda may be long gone.

#### Three approaches to IP policymaking

Taking the above into consideration, and given the tasks ahead, one could still identify three main policymaking approaches in the field of IPRs, which are also relevant to growth and innovation.

##### i. The classic approach

The first approach considers IP-related activities from a social welfare perspective, i.e. it focuses on the benefits and costs to society of these activities.

Such an analysis ultimately focuses on the extent to which different actions in the IP field affect society as a whole. This approach may be called the classic approach, as most economists and political economists (including the authors) tend to use different elements or variations of this perspective when analysing different IP policies.

The overall framework of the classic approach is subject to the structural trade-off of the IP system: that by providing incentives for innovative activities and the creation of knowledge products in the future, IPRs restrict access to existing knowledge products at present, given their monopolistic feature.

##### ii. The international approach

A second approach, which analyses different IP-related activities, may focus on the internationalisation (or globalisation) of IP environments and their implications on various economic activities, such as trade, foreign direct investment and technology transfer.

This approach, which we may refer to as the international approach, is ultimately linked to the global IP environment in general and to the WTO agreement of trade-related aspects of intellectual property rights (TRIPS) in particular. Today the regional and bilateral aspects of IP trade-agreements have returned with a vengeance.

The international approach is often linked to the North-South context – that is the analysis of the extent to which the global IP environment affects the economic and social well-being of developed and developing countries, mostly the latter.

##### iii. The industrial approach

Finally, we can also choose to analyse national and regional IP-related policies in the context of knowledge creation, knowledge exploitation and knowledge distribution.

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<sup>1</sup> Helen Disney is CEO of the Stockholm Network. Dr. Meir Perez Pugatch, Haifa University, is the Research Director of the Stockholm Network.

This approach, which we may term the industrial approach, tends to examine the extent to which the IP field may promote (or obstruct) countries' industrial and commercial capabilities, at least as far as knowledge-based products are concerned.

The term IP creation broadly refers to the extent to which a country or a region (such as the EU) is able to translate its innovative base into exploitable IP assets. In other words, an analysis of IP creation considers the amount of IP assets generated as an integral part of a region's ability to create applicable knowledge that has the potential to be translated into new technologies and products.

Factors associated with this dimension may be treated as input factors and include the following:

- Amount of IP generated – both in absolute terms and compared with other countries.
- Distribution of IP generated – across different fields of technology.
- Internationalisation of IP activities – in terms of ownership of IP abroad and partnerships both between EU-based and non EU-based entities.

The term IP exploitation, on the other hand, broadly refers to the extent to which the EU is able to translate the IP potential of EU-based entities into industrial and commercial results. Factors associated with this dimension may be considered as output factors:

- Volume and share of GDP of IP-related transactions – including international transactions of knowledge-based products (such as from royalties and license fees).
- Public-private partnerships (including joint ventures and spin-off companies) aimed at exploitation and commercialisation of IP assets.
- Enforcement of IP rights – measured among other things by the level of counterfeiting.

### **IP policymaking in the EU**

It would be virtually impossible to expect the individual policymaker to come up with a perfect

policy tool kit that would answer all the challenges and opportunities associated with the IP field.

Put forthrightly, the economic, commercial, political, social and moral aspects of IPRs are too complex for one person, and even for an entire European Commission Directorate, to handle.

Combining the three approaches above (especially the industrialised approach) requires stronger and better coordination between European IP policymakers.

Arguably, the current processes of IP policy formation at the EU level need to be improved. It is becoming increasingly frustrating to observe how different IP issues (Community Patent, Enforcement & Criminal Directives, CIID, etc) are handled.

A more efficient and informed IP policymaking process is therefore needed, based on three major pillars:

The first pillar concerns the preferred approach to policymaking in a given IP area and subsequent sub areas – i.e. the extent to which the goal of this policymaking is based on the classic, international and industrial approaches. While there is an obvious need to take all of these perspectives into account, the EU must eventually decide on the direction of travel. Here we believe that the industrial approach is particularly important to the EU's current needs, not least in the context of the Lisbon Agenda.

The second pillar concerns the need to create better harmonisation between different EU policies. It is important to ensure that the IP policymaking in one area is more in harmony with other areas of policy, such as competition rules. Here, more enhanced intra-EU Commission consultation mechanisms are needed (for example between DG Enterprise, DG Internal Market and DG Comp)

Finally, for each and every IP topic, there is a need to ensure, throughout the entire policymaking process, that the strategic objectives identified by policymakers are reflected in proposed legislation, especially in its

final phases. Too often we encounter a situation in which political compromises essentially nullify or even overturn the principal objectives of the legislation.

### Summing up

Defining IP policies to promote growth and innovation will be greatly enhanced by focusing on the process of forming such policies. In the EU there is a greater need for inter-agency and intra-agency co-ordination.

Such co-ordination can ensure that the EU's strategic goals are better reflected in the proposed IP legislation, particularly in their final stages, where they are exposed to political pressures and compromises that may undermine the entire rationale of these policies.

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## Topic of the Month

### A Dip in the Patent Pool – Simon Moore<sup>1</sup>

Patent pools have been around for over 150 years.<sup>2</sup> Yet they have never been as potentially expensive as they are now. The 2005 creation of the Open Innovation Network (OIN) patent pool by a group of six Linux-supporting firms (IBM, Sony, Philips, Novell, Red Hat and NEC) created a delicate balance of powers in the operating system patent business. Market leader Microsoft and open-source backers in the OIN each own thousands of patents. Each is believed by the other to be infringing on their intellectual property. But the threat of expensive, mutually

destructive countersuits has kept this war cold. At least, it has until now.

In a provocative interview given to executive magazine *Fortune*, Brad Smith, Microsoft's general counsel, accused open source rival Linux of infringing "no fewer than 235" Microsoft patents. With many large businesses running Linux-based systems, the article has stirred up fears in the commercial world of a major confrontation between Microsoft and the free and open source software (FOSS) community.<sup>3</sup> *Fortune* speculated in the same article that "if Microsoft ever sued Linux distributor Red Hat for patent infringement, for instance, OIN might sue Microsoft in retaliation, trying to enjoin distribution of Windows", leading to eventual "patent Armageddon".

The concept of the patent pool is a straightforward one. In industries where critical patents are held by a variety of owners, the only ways production can occur is with large-scale and multilateral patent infringement, or with an agreement that the groups will share their patents. If the infringements of the former option were to be prosecuted, counter accusations would fly and long, destructive periods of litigation would ensue. Almost inevitably, therefore, the second course is normally pursued, either tacitly or overtly.

The existence of a patent pool also eliminates the need for constant renegotiating of licensing rights as new innovations are made by one or more members of the pool. This entails a welcome reduction in co-ordinating costs. Corporate risk is also mitigated by the use of patent pools, as an innovation from an erstwhile rival will lack the capacity to reshape the market, if it may also be used by competing companies.

The terms of a pooling agreement need not automatically include future developments, however. As voluntary agreements, companies are free to offer up only the patents they wish.

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<sup>1</sup> Simon Moore is a research officer at the Stockholm Network

<sup>2</sup> The first recorded patent pool in US history was established in 1856 by sewing machine firms Howe, Grover, Singer, Baker, and Wheeler and Wilson. 'Peacefully Working to Conquer the World'; *Technology and Culture* (vol. 18, issue 4); <http://links.jstor.org/sici?sici=0040-165X%28197710%2918%3A4%3C700%3APWTCTW%3E2.0.CO%3B2-M&size=LARGE&origin=JSTOR-enlargePage>

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<sup>3</sup> 'Microsoft takes on the free world'; *Fortune* (May 14 2007); [http://money.cnn.com/magazines/fortune/fortune\\_archi ve/2007/05/28/100033867/index.htm](http://money.cnn.com/magazines/fortune/fortune_archi ve/2007/05/28/100033867/index.htm).

However, situations of withholding applicable patents are rare, as a perception of dishonourable conduct will only make one's partners more reticent to contribute theirs, resulting in a return to the precarious balance that existing prior to the pool's creation.

Pools are also enacted in order to provide for 'industry standards', examples in the entertainment industries are numerous. Two DVD technology groups exist to collectively license technology pertaining to the DVD format. These groups also co-ordinate activity through the DVD Forum. Likewise, the competing HD-DVD and Blu-Ray technologies attempting to become the format of choice to succeed 'standard' DVD each have their own consortia of backers a group licensing agreements. The Moving Picture Experts Group (MPEG) has been prominent in the development of digital audio and visual compression standards (including the most well known, MPEG 1, audio layer 3, or MP3 format).

Standardisation, though, is not universally welcomed. The creation of the MPEG-4 group (evolving from the earlier MPEG-2 group) was met with legal action from a firm behind a competing format, decrying the attempts to create a standard as "contrary to existing antitrust and prior Justice Department standards".<sup>1</sup>

The history of pooling is spotted with instances of mandated patent pools. The 'compulsory pooling' scenario developed during World War I for breaking a licensing deadlock in aircraft manufacturing has provided inspiration for a wide range of industries.<sup>2</sup> Similar pooling arrangements have been advocated for contemporary medical crises.

The World Health Organisation and United Nations have discussed the creation of an

'essential patent pool' for HIV-AIDS medication.<sup>3</sup> In essence, a glorified compulsory license, the scheme would allow for a grouping of countries to pool patents from a variety of different owners simultaneously, avoiding "pressure that can \*accompany [the decision to issue a compulsory license through regular channels]" However, the problems of mandatory patent pooling are the same as those for 'standard' compulsory licensing; the deterrent effect on innovative activity.

The potential power patent pools can provide is incredible. They have the ability to attenuate the monopolistic nature of patents (thereby potentially mollifying some of their critics), while creating new opportunities for innovation. They can be used to generate the solutions to a range of problems requiring the collaboration of a number of partners in a given sector. Yet, they should not be treated as a universal remedy to IP problems. Use of quasi-compulsory patent pools should be regarded with as much trepidation as would the compulsory licensing measures their advocates hope to substitute them for. This great power needs to be used responsibly.

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## Experts' Corner

### Proprietary Software vs. Open Source Software – Federico Etro <sup>4</sup>

Intellectual property rights are fundamental drivers of innovations in all sectors. Nevertheless, software development has recently been characterised by a large amount of innovations obtained in a decentralised, voluntary and uncompensated way by programmers within the so-called open source software (OSS) movement. Technically, open source software is made available for direct use and modification (through direct access to the source code) under limited protection. For instance, the GPL (General Public License, first used in 1981 by Richard Stallman,

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<sup>1</sup> Coverage at <http://www.out-law.com/page-2511>

<sup>2</sup> There is insufficient space to explain the story in these pages, but for a detailed case study see NASA's history site, <http://history.nasa.gov/SP-4103/ch2.htm>

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<sup>3</sup> See, for example, IP-Watch <http://www.ip-watch.org/weblog/index.php?p=55&res=1280&print=0>

<sup>4</sup> Professor of Economics, University of Milan

the leader of the Free Software Movement) grants unlimited right to use, modify and distribute software as long as its redistribution makes available the modified source code and does not impose further restrictions on the rights granted by the GPL. These enforcement mechanisms make co-operative innovation quite effective and immune from free riding, but can create problems when an innovation includes both open source software and licensed proprietary software.

Major results of the open source movement are Linux, an Operating System based on Unix and developed in 1991 by Linus Torvalds, Apache, a web server, and Firefox, a web browser. Besides software that is freely distributed, there are an increasing number of companies, like Red Hat and Novell, that profit from collateral services supplied jointly with free software. In theory, any rival could resell Red Hat software at a lower price because it is under GPL (and some firms actually do it), but Red Hat managed to sidestep this problem protecting its products with trademark law. In this sense, the difference between proprietary software and open source software appears much less relevant: the former earns from licenses to end-users, the latter mainly licenses software free of charge and earns from selling support needed by end-users to install and run the software.

While many private corporations support OSS because they supply products that are complementary to OSS (IBM are foremost of these companies, but HP, Intel, Sun, Oracle and many other large corporations also support the open source community), it remains surprising that such a large innovative process can take place, at least in part, through directly unrewarded efforts. Some economists have provided a few explanations for the incentives of these individual programmers: career concern, ego gratification and signalling activity are quite powerful and effective in this field. Unfortunately, the same nature of these incentives shows the possible limits of the innovative activity in the open source community: it is limited by the usual free riding problems emerging in the private provision of public goods (it is interesting that an information good as software is substantially a public good: it can be provided to new agents at

no substantial cost and without reducing the utility of the other agents), it requires a complementary activity in the for-profit sector (to motivate the career concern and the signalling activity), it may be biased by research efforts that are different from general consumer needs and by adverse selection of the contributors, and it may be effective to solve a number of small and short term problems, but less effective to solve multi-sided challenges and approach long term projects. It is often claimed that OSS is more effective than proprietary software in debugging activity (since many programmers find and solve many defects within a software and make the solutions freely available), but may have big problems confronting issues relating to synchronisation of upgrades and efficient levels of backward compatibility.

While the development of this new form of innovative activity is a symptom of high competitive pressure in the sector, it does not provide any evidence against the fundamental role of the protection of IPRs in driving core innovations. Actually, we believe that the current coexistence of OSS and proprietary software may exert, within certain limits, a positive impact on innovation on both sides. To see why, think of a different sort of open source activity: Wikipedia is a famous and successful online encyclopaedia where anybody can post a new entry or edit an existing one. While it contains a lot of useful and constantly updated information (especially in certain fields, as those related to the online community), it often includes unmotivated and misleading references or mistakes that are the normal consequences of overlapping additions by heterogeneous contributors whose preparation is not properly controlled and whose effort is not rewarded. Traditional encyclopaedias, based on rewarded contributions by selected experts are not constantly updated as Wikipedia is, but they provide a standard of quality and a balanced unifying structure that Wikipedia lacks. The trade-off for the end users is clear, and coexistence appears natural.

In the field of software, interactions are more complex because any single product may include many innovations, some of which are licensed as proprietary software and others as OSS. This creates a fundamental asymmetry between

companies. On one side, open source companies can use proprietary software within their products and freely distribute them while covering license expenditures through the fees for their customer support services. On the other side, commercial companies cannot pursue their business model when including OSS within their software, because they would infringe the copyright (or “copyleft”<sup>1</sup>) of this OSS if they apply a price to the license of their products. This asymmetry can create substantial problems for the conventional business model, and may inhibit or bias innovation by commercial companies. These limits of the OSS business model should be kept in mind when approaching regulatory and antitrust issues for the software market.

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## New and Notable

### “IPRinternalise”: Integrating Intellectual Property Rights in Technical Education – Prof. Prabuddha Ganguli, Siddharth Jabade and Hemant Abhyankar <sup>2</sup>

Achieving a critical mass of IP trained personnel has eluded most efforts due to lack of continuity, inappropriate selection of the people to be trained, infrastructure, and, most importantly funding. Such shortcomings are recognised and overcome in the “IPRinternalise” model.

The “IPRinternalise” programme integrates IP knowledge in technical education to provide an experience-led framework with value added learning. The problem based “learn as you do” system naturally induces a knowledge seeker to explore and exploit the richness of existing knowledge (prior art), contextually build on it and provide technical solutions to problems as he assesses it, and in the process inculcates the necessary IPR skills to generate and protect his creations. This problem based approach to IP is

“stress and burden free” but “relevant and need based” as one is drawn into it by a natural tide originating from one’s immediate needs.

One of the best options is to follow a “policy top-down” and “working bottom-up” approach in which the senior management of an institution is exposed to the concept and benefits of the “IPRinternalisation” and get the implementation initiated at the grassroots level.

\*The enlightened senior management as believers of this process develops an institutional IPR Policy and commits appropriate personnel and resources from their institution to form an IP core group for training and implementation of the “IPRinternalisation” process. This trained intra-IP Institutional IP Core Group then takes on additional responsibility to create and train IP Core Groups drawn from other institutions.

The IP core group is exposed to the basics of IPR in structured training programmes, including the basics of IPR, exposed to techniques and websites for prior art search, how to read, analyse patents, interpret claims, how to identify problems, suggest solutions that may have an inventive step, design experiments keeping the requirements of novelty, inventive step and usefulness as key requirements for patentable inventions. The IP literate core group then guides students on how to select their projects, which the students are expected to formally complete as part requirement of their Bachelor’s or Master’s Engineering Degree Programmes.

The students in the institution are taught to critically observe and select problems. They then team up with the IP Core group in their institution to conduct a global literature search including patents databases. Students are guided to seek inventive solutions keeping in mind the relevant prior art. As the project progresses, the IP core group with the help of IP professionals evaluates the results for appropriate protection by way of patents and design registrations.

In due course, the IP core group becomes a hub to train IP core groups in other institutions as spokes which in turn become multiple hubs creating further spokes thereby propagating a chain reaction to eventually create networked

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<sup>1</sup> <http://www.gnu.org/copyleft/>

<sup>2</sup> Prof. Ganguli of VISION-IPR, Mumbai, India [pgang@mtnl.net.in](mailto:pgang@mtnl.net.in). Siddharth Jabade and Hemant Abhyankar are from the Vishwakarma Institute of Technology, Pune, India

“Communities of Practice of IP literate Core Groups” all operating in a hub-spoke manner.

### **“IPRinternalisation” process at the Vishwakarma Institute of Technology, Pune.**

VIT Pune embarked on its “IPRinternalisation” path in April 2005 with a familiarisation programme for the Senior Management, faculty and technical staff. This was followed by the formation of the IP Core Group through voluntary participation of the faculty and technical staff of the institute.

The IP Core group was subjected to the IPRinternalisation process which then teamed up with a set of students’ projects (which is a part requirement of the degree programmes). They helped the students to identify problems especially based on their native environments, conduct prior art searches, helped the students to design experiments, etc., and at an appropriate stage evaluate the project for patentability and even file patents based on the student projects. A significant outcome has been the filing of 4 patents based on the undergraduate student projects at VIT in 2005-2006.

In April 2006, principals, deans and senior managements of 17 colleges in the State of Maharashtra that are covered under the Technical Education Quality Improvement Programme (TEQIP) were invited to a half-day workshop in which the VIT Pune IP Core Group led by their Principal shared their “IPRinternalise” experience. This encouraged the management of four participating institutions to form their IP Core Groups.

In October 2006, VIT Pune’s IP Core Group as a HUB conducted training programmes on “IPRinternalise” in which the members of the 4 newly formed IP Core Groups participated. By end 2008, the network is expected to include about 100 institutions in the State of Maharashtra.

This experiment has provided a platform for the participants to learn a systematic process of enquiry and targeted technical solution designing, recognising the richness in mapping of prior art

and how patent information in combination with other literature can be strategically used to avoid rediscovering the wheel and possible infringement of others’ intellectual property rights. As a bonus, a selected number of student projects result in the filing of patents, design registrations and possibly progress towards commercialisation.

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## **News Flashes**

### **Top Stories in the World of IP and Competition**

1) The World Health Assembly reached a new agreement on IP and medicines innovation. However, the resolution was reached without the support of the United States, the country which conducts the most medical innovation. The resolution encourages the World Health Organisation to support member states to use trade law to improve access to medicines, and to encourage new research and development policy.

<http://www.ip-watch.org/weblog/index.php?p=630&res=1280&print=0>

2) In a landmark ruling, the British High Court found online music retailer CD Wow guilty of copyright infringement for importing music from Asia at prices below the UK market rate. The case challenged long-standing rules enabling IP-owners to charge different rates for their products in different markets. CD Wow has said it will take its appeal to the European Court

[http://business.timesonline.co.uk/tol/business/industry\\_sectors/media/article1857093.ece](http://business.timesonline.co.uk/tol/business/industry_sectors/media/article1857093.ece)

3) EU officials announced the seizure of some €2 billion worth of counterfeit goods as they entered the EU last year. The majority (some 80%) of the goods were arriving from China, with India and the UAE proving the largest sources of counterfeit medicines.

[http://business.timesonline.co.uk/tol/business/industry\\_sectors/consumer\\_goods/article1868643.ece](http://business.timesonline.co.uk/tol/business/industry_sectors/consumer_goods/article1868643.ece)

4) Apple's DRM has caused further problems, with the revelation this week that apparently DRM-free tracks sold through iTunes contain personal data that can be used to track the original purchaser. The data storage is not restricted to DRM-free tracks; however, the difficulty of sharing protected tracks had meant it posed little risk.

<http://arstechnica.com/news.ars/post/20070530-apple-hides-account-info-in-drm-free-music-too.html>

5) Google Maps' new Street View feature has also caused alarm, with fears of people's privacy being invaded. The Internet is already awash with collections of images found of people in amusing or compromising situations.

[http://news.xinhuanet.com/english/2007-06/04/content\\_6194546.htm](http://news.xinhuanet.com/english/2007-06/04/content_6194546.htm)  
[http://technology.timesonline.co.uk/tol/news/tech\\_and\\_web/article1870949.ece](http://technology.timesonline.co.uk/tol/news/tech_and_web/article1870949.ece)

6) A group of British MPs has backed calls for the extension of copyright terms for recording artists, to at least 70 years. The culture, media and sport select committee said last year's Gowers review had failed to appropriately consider the rights of performers.

<http://business.guardian.co.uk/story/0,,2081245,00.html>

7) Co-ordinated measures by G8 countries to tackle IP abuses are expected to be announced as a result of the G8 summit in Heiligendamm, Germany.

<http://www.ft.com/cms/s/feb4dc8c-13c9-11dc-9866-000b5df10621.html>

8) Russian authorities have closed down the notorious allofmp3.com website. Often cited a proof of poor Russian IP enforcement, the site sold mp3 files at massive discounts over Western competitors, a process the rights owners complained was completely unauthorised and illegal.

One day after allofmp3's closure, the site's founders launched mp3sparks.com, a site very

much in its predecessor's image. As allofmp3 did, it claims to be legal under Russian law. Whether it survives as long as its forerunner remains to be seen.

<http://business.guardian.co.uk/story/0,,2117653,00.html>

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