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Commentary

Balancing innovation and public safety with effective enforcement in the new ACTA agreement – Meir Pugatch and Helen Disney¹

Counterfeiting and piracy can affect almost everyone these days, whether it is a fake medicine purchased on the internet or the latest hit song downloaded from a peer-to-peer website. No doubt the explosive growth of IPR infringement over the last decade is impacting negatively on public safety as well as on enterprises, especially on the potential for future innovation and improvements in technology.

In late 2007 a number of countries and trading blocs, including the United States, the European Union, Japan and Canada, began negotiating a new anti-counterfeiting trade agreement (ACTA) that would address the gap in enforcement of IPRs we see today thanks to modern technologies such as the internet and global transport. It is not a secret that such negotiations were initiated due to a growing sense of frustration with the inability to reach a consensus or progress about these issues via the established international bodies such as the World Trade Organisation, World Intellectual Property Organisation, etc.

As the negotiations have inched their way towards completion, leaks and news reporting on the status of the negotiations have triggered loud public reactions. Only recently the European Parliament overwhelmingly approved a resolution calling for increased openness in the ACTA negotiations. This resolution explicitly criticised what until now were being described as “secret negotiations”.

In response, the negotiating parties have issued a public draft document of the agreement. From this, along with public statements of the negotiating parties it is possible to piece together some of what ACTA seems to entail, although the plethora of brackets and options throughout the text suggests that a great deal of uncertainty still remains.

ACTA is primarily concerned with counterfeiting of trademarked goods, like clothing and pharmaceuticals, and piracy of copyrighted material, particularly digital material. Generally speaking, the text restates the relevance and importance of IPRs in today's context, but importantly, it also addresses key dilemmas that are currently faced by enforcement authorities. In doing so, it introduces new standards for IP enforcement, particularly in areas such as border control and in the digital environment.

While addressing the pressing issues of counterfeiting and piracy that we face today is a welcome objective, *how* these issues are addressed is equally important.

The ACTA framework has the potential to set a clearer and more unified standard for the battle against counterfeiting and piracy. From a public health and safety perspective this would help limit the spread of counterfeit medicines (although concerns have been raised about the lack of action on substandard medicines). It may also help reduce uncertainty in markets plagued by counterfeiting and piracy, helping to encourage investment in the development and improvement of new technologies. Furthermore, ACTA may also help to improve the environment for new business models, clarifying what sort of legal and economic framework new models should expect to work within and influencing their shape (for example, with regard to the challenge of online piracy and illegal downloading). Finally, increased cooperation among different national enforcement entities will also no doubt help improve and speed up the process of enforcement across borders.

However, it is vital that these standards do not risk becoming too suffocating or put signatories in a legal or bureaucratic “straightjacket”.

Take, for instance, the guidelines or particular enforcement measures included in the current text, such as for border control measures or criminal justice procedures – do they contain so many details that fulfilling them will detract from actual enforcement or constrain authorities from addressing particular cases?

There is also concern that the text overreaches in fighting online piracy, especially when it comes to the role of online service providers. Contrary to early fears, the text does not set a single standard (such as the so-called “three strikes” method) for internet service providers (ISPs) in monitoring users or enforcing anti-piracy measures against infringers. However, it is suggested several times in the text that ISPs would have a role in IPR enforcement and could be made liable for not acquiescing (although certain circumstances, such as lack of knowledge of infringing activity, would limit their liability). The role of ISPs is just one of several new and challenging issues involved in enforcing digital copyright, all of which, at this point in time, countries may want to address individually.

Therefore, although the ACTA signatories seek to do a good thing in beginning to address the

rampant counterfeiting and piracy we see today, the current text includes sections and approaches that could also bog down the enforcement system in individual countries and remove flexibility that is at times crucial for effective enforcement to occur. The text is far from settled and given the slow pace of negotiations so far, it will likely take some time before the final text is agreed. In the meanwhile, national negotiators should seek to balance the positive goals of the treaty – particularly, improved public safety and incentives for innovation – with a framework that may be implemented efficiently and effectively by individual countries.

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Topic of the Month

Regulating Internet piracy: Different European approaches – Mairead Lynn¹

As the internet becomes an increasingly important means of sharing digital media and content, people are finding ways to access content without having to pay for it. Popularly equated with the pillaging of ships by pirates, online piracy refers to the act of obtaining or sharing copyrighted materials via the internet without the permission of the owner. Studies show that online piracy is taking its toll on many different industries involved in content creation – in 2008, Europe’s media industries lost over €10 billion and 186,000 jobs due to piracy.² In this context, governments are starting to take a more robust approach to combating online piracy, even as they seek to maintain an open platform for information sharing and communication via the Internet.

The internet piracy “pipeline”

Before examining the new legal and regulatory frameworks taking shape in Europe, it may be helpful to identify the different components

involved in the process of online file-sharing. The individual consumers or users who access online content are arguably the most important. Ultimately, it is users who upload copyrighted content for sharing, freely access content posted by other users and create their own platforms for sharing and diffusing content. Indeed, it was an individual user who created Napster, the pioneering file-sharing music site that brought online piracy to the technologically uneducated masses. Before it shut down in 2001, Napster had between 30-40 million users and, since then, the number of people who illegally access music via the internet has skyrocketed.

So has the number of different, easy-to-use file-sharing sites. Napster is an example of a peer-to-peer (P2P) network, where participants are able to upload and download content directly from one or several computers to another. On file hosting sites, larger files can be downloaded from a main server or content can be streamed directly from the site. Indexing sites, such as Google, do not necessarily host content, but allow users to locate content. Although many of these sites are used to access legal content, they are also increasingly making online piracy as easy as the click of a button.

As the means by which people access the internet and transfer files, internet service providers (ISPs) constitute another crucial player, and are acquiring an increasing role in confronting internet piracy.

Since the legal and regulatory framework is just beginning to evolve to fit the digital age, courts have until recently been treading new waters, with a more hard-line approach being taken in some places, such as the US and Sweden, and a softer stance in other places, including Spain. In an effort to establish a clearer, more robust framework – and in a more timely and less expensive manner – many countries are now updating their copyright laws.

Current international and European anti-piracy legislation

On an international scale, the ACTA agreement remains under discussion. As discussed in the Commentary, it is still unclear how explicit the final text will be on issues such as ISP involvement in monitoring and enforcing measures against online piracy as well as the remit of customs authorities in searching suspected infringers.

At the EU level, there are two key pieces of legislation affecting national internet copyright laws. The 2006 Intellectual Property Rights Enforcement Directive standardises copyright law throughout Europe, and in particular, addresses the rights of copyright-holders and ISPs. For instance, rights-holders are to receive fair compensation for reproduction (for private use) of audio, visual and audio-visual material. ISPs are not liable for transfer of copyrighted material over their networks as long as they are unaware of it or halt it when they become aware (known as the “safe harbour concept”).³ The 2009 Telecoms Package explicitly deals with the rights of internet users. In particular, the directive recognises internet access as a fundamental human right and entitles EU citizens to a fair and impartial trial before internet access can be taken away.⁴

The following section demonstrates how the ACTA and EU provisions interact with national

pieces of legislation, as well as the overlap between different forms of national legislation.

Current national legislation

France is the most striking example of a country which has broken new ground on fighting online piracy. It was the first EU member state to adopt a new controversial “three-strikes” approach, as part of the 2009 HADOPI law (the acronym given to the governmental agency created by the law to monitor file-sharing over the internet in France). Under the new law, anyone suspected of transferring or downloading copyrighted material over the internet receives two warnings from HADOPI to stop. In the original proposal, if users continued their illegal activity, the ISP providing the user with internet access would have been forced to shut down his or her internet service temporarily. However, amidst the EU telecoms negotiations discussed above, the French Constitutional Council deemed the law unconstitutional after deciding that “access to public communication services online” was a basic human right.⁵ As a result, it ruled that a judge, not HADOPI, must decide if infringers lose internet access. Incidentally, the ruling brought French law into line with the EU Telecoms directive, though the EU directive was decided after the French ruling and turned out to be more flexible than the most current version of the HADOPI law.

The UK is also using ISPs to oversee and monitor file-sharing activity. Since 2003, based on the Copyright and Related Rights Regulation, if ISPs have knowledge of infringing material online, they must ensure it is removed – if they do not, an injunction may be taken out against them. (The regulation also criminalises “non-accidental” sharing of protected music or video content.) The responsibilities of ISPs have been taken even further this year in the Digital Economy Bill (DEB), passed in April. Under the bill, ISPs must provide copyright owners with the details of suspected copyright infringers. The bill will also allow a temporary suspension of internet service similar to France’s three-strikes law (which also had to be amended to comply with the new EU legislation).⁶ Although the bill has received strong support from the creative industries, it has raised fierce reactions from privacy and civil liberty

advocates – who point out that virtually anyone could claim to be a copyright owner to gain access to information about internet users – and ISPs, who argue that the bill targets the owners of internet services, not necessarily the users.

In Spain, file-sharing and online piracy are not as much of a cultural taboo as in other parts of western Europe. In fact, 30% of the population in Spain uses file-sharing sites versus 15% in rest of Europe.⁷ This can be attributed partially to the fact that piracy is not illegal in Spain unless it is done for profit. In March 2010, Spain's cabinet approved a new anti-piracy bill similar to France's three-strikes law, called the Sustainable Economy Law (LES). But where the French and British laws try to target users and use ISPs to do so, the Spanish law targets websites that are deemed to be hosting pirated material. Furthermore, a new IP Commission, including representatives of various creative industries, would be responsible for identifying such websites and bringing them to court. The court would have to hear the case within four days and would be authorised to shut down infringing sites. The bill has raised much public debate, particularly regarding the grounds on which a website may be shut down.⁸ It has been sent to parliament, and if passed in June as expected, the LES will be Spain's first ever anti-piracy legislation.

The online piracy debate has probably been the most vivid in Sweden. One of the most popular illegal file-sharing sites in the world, Pirate Bay, is owned and operated by Swedes. The third largest political party in Sweden is Piratpartiet, which campaigns for the decriminalisation of internet file-sharing. However, the tide is not all for piracy. In 2009, a Swedish court found the founders of Pirate Bay guilty of copyright infringement (based on making a financial profit from the site) and sentenced them to one year in prison and hefty fines. Following the verdict, the Swedish government also passed a new copyright law, which allows rights holders to acquire IP addresses from ISPs after being authorised by a court.⁹

New business models

Despite all this activity, legislation and litigation are not the full solution to effectively stopping

internet piracy. While governments can help hinder it, companies must continue to come up with innovative business models that will make people want to pay for their products. Apple's iPod and iTunes, in which songs purchased on iTunes cannot be transferred to any other device other than a personal iPod, is a good example. Spotify, a music streaming website, offers free music to anyone registered, although the songs cannot be uploaded to mp3 players or burned onto CDs. Advertising as well as fees for a premium service provide its main source of income. For some companies like Amazon, finding new business models is a learning project and not every model will have positive or promising results – while Amazon's Kindle has introduced a new platform for reading, many users are actually downloading pirated books instead of purchasing them through Amazon.

Conclusion

The face of internet piracy is changing every day. As new types of file sharing sites continue to pop up all over the web, countries around the world are trying new ways of restricting the level of online piracy with tougher legislation. In Europe, while there is a definite trend toward utilising ISPs as gatekeepers and using internet access as a "stick", implementation of these ideas is different in each country. In addition, it remains to be seen how much ACTA may affect these trends as well as how it will fit in with the latest EU legislation.

With new legislation and agreements, the consequences of online piracy are going to get a lot more serious. It is hard to say what will be the most effective. However, whether it is updated legal and regulatory frameworks or new business models, there is no doubt that in order to be effective, counter-piracy efforts will need to be as innovative and forward-looking as the internet itself.

¹ Mairead Lynn is a former research intern at the Stockholm Network.

² Reuters, "Internet piracy taking big toll on jobs," 17 March 2010, <http://tinyurl.com/ycjgsjc> (Accessed 20 April 2010).

³ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society.

⁴ Europe's Information Society, "Main elements of Telecoms Reform", November 2009, <http://tinyurl.com/ybsjhe2> (Accessed 20 April 2010).

⁵ AFP, "Top legal body strikes down anti-piracy law", France24, 23 November 2009, <http://tinyurl.com/nm28re> (Accessed 20 April 2010).

⁶ BBC News, "Anger about 'stitch-up' over Digital Economy Bill", 8 April 2010, <http://tinyurl.com/yhllh82> (Accessed 20 April 2010).

⁷ Tremlett, G., "Spain finds that film piracy is a hard habit to break", *The Guardian*, 31 March 2010, <http://tinyurl.com/yczrde> (Accessed 20 April 2010).

⁸ El País, "El Gobierno aprobará hoy la 'policía' cultural de Internet", 19 March 2010, <http://tinyurl.com/y4emg9t> (Accessed 21 April 2010).

⁹ Masnick, M., "Swedish Antipiracy Law Goes Into Effect... Internet Traffic Drops", TechDirt, 1 April 2009, <http://tinyurl.com/y7tb5dt> (Accessed 31 March 2010).

Experts' Corner

Patents and clean energy: a follow-up – Konstantinos Karachalios¹

The Expert's Corner of *Know IP's* June 2009 issue contained an article entitled "Patents and energy – generating results or generating controversy?". It presented the scope of an international project by the European Patent Office (EPO), United Nations Environment Programme (UNEP) and International Centre for Trade and Sustainable Development (ICTSD). At the core of this ongoing effort is the need to produce data and evidence that can serve to better inform the current polarised debate around patents and their role in the diffusion of technologies that have the potential to mitigate climate change.²

This need became very obvious during the UNFCCC negotiations in December 2009. Almost all the negotiation texts of the Long-term Cooperative Action (LCA) framework included a non-disputed paragraph stating:

*A technology information platform should be developed and be continuously updated to collect information on sector-specific technologies and best practices on publicly and privately held technologies, including on IPRs and licensing, costs, abatement potentials, and manufacturers of technologies.*³

This paragraph may be short, but setting up the stated "technology information platform" may not be that easy. Which technologies are we talking about, in which sectors and who defines them? Who could or should give precise information about ownership (who owns what

exactly, where and for how long)? Are these technologies already mature and, if yes, what are the market conditions? Are the owners willing to licence and what would be the conditions of a license agreement?

Clearly, there is no single organisation that could answer these questions for the vast area of environmentally-sound technologies, which are the focus of the UNFCCC negotiations. The EPO, UNEP and ICTSD project aims to act as an international alliance capable of shedding light on the different fields of environmentally-sound technologies (ESTs), starting with the clean energy sector. Within the scope of the project, several studies were carried out and preliminary results were presented at a side event of COP15 in Copenhagen. The final report is expected in early June. Some basic findings and the project outlook are presented here in a nutshell.

Mapping patenting activities in the clean energy sector

First, a precise mapping of the state of technology in the clean energy sector was carried out by the Energy Research Centre of the Netherlands (ECN) on behalf of ICTSD. The mapping focused on renewable energy technologies, carbon capture and storage, biofuels and some specific combustion technologies like integrated gasification combined cycle. The mapping included specific applications, apparatuses and components.⁴

Following the guidance provided by the mapping, the EPO developed a specific classification scheme (including some 50 categories) and categorised all patents (using worldwide data)

related to clean energy technologies within the scheme.

With this data, a statistical analysis was carried out by the Environment Directorate of the OECD. The findings show that there has been a marked increase in patenting activity in clean energy technologies as opposed to fossil fuel energy. In particular, numbers of patents related to wind power, solar photovoltaic (but not thermal) and carbon capture technologies have exhibited rapid growth in recent years. Notably, there has been a marked increase in patents involved in wind, solar photovoltaic (PV) and hydro/marine technologies since the Kyoto Agreement was signed in 1997. Furthermore, patenting activities across all examined technologies appear to be dominated by Japan, US, Germany, Korea, Great Britain and France (mainly concentrated in solar PV patents (87%), whereas geothermal energy appears to be the least concentrated field among these countries). Further analysis concerned the maturity level of specific technologies, patent streams across countries, the impact of national policy decisions (e.g. feed-in tariffs) and market conditions (e.g. oil price) on patenting activity, etc.

A licensing survey in the clean energy field

Subsequently, a licensing survey of selected companies was carried out. Dr Meir Pugatch, of the University of Haifa and the Stockholm Network, coordinated this international effort, supported by the World Business Council on Sustainable Development, the Licensing Executive Society International, the International Chamber of Commerce and the Fraunhofer Gesellschaft. Beyond the profile of the respondents (including the type of organization, country in which headquarters are located, size, technology fields and R&D), the survey looked into the proportion of EST-related patents in a company's portfolio, the importance of and tendency to engage in out-licensing and in-licensing activities and the importance of collaborative IP mechanisms in the overall business strategy. Furthermore, the survey enquired after the extent of the companies' licensing activities in developing countries, the factors affecting licensing agreements in such countries and the potential for flexibility in licensing terms.

An initial analysis of the survey data, drawn from around 160 companies and publicly funded institutions, reveals that most companies do not engage in any licensing activity with developing countries. Where licensing agreements have been entered into, the partners are from China, India, Brazil and Russia. Furthermore, although the presence of IP protection in the recipient country is considered to be important, other conditions, such as scientific infrastructure, human capital, favourable market conditions and investment climate, are equally important. Interestingly, 70% of respondents indicated that they are prepared to offer more flexible terms when licensing to developing countries, SMEs showing an even greater willingness to be lenient.

Boosting available data

In addition to these efforts and results, it has quickly become apparent that the patent data accumulated through the project is seen by the research community as itself a potentially strategic deliverable. However, this data reflects only a snapshot of a very dynamic landscape – the prevailing trends of today do not necessarily project tomorrow's realities. Thus, the question has arisen as to how such data might be regularly updated and made available to a broader public. As a result, the EPO has decided to develop an entirely new, fully-fledged classification scheme, covering the main technology sectors and applications, as defined by the Intergovernmental Panel on Climate Change (IPCC), and to make it publicly available. Such a scheme would add considerable value to existing, publicly available (non-commercial) patent information systems; information which usually takes significant time and expert resources to retrieve could be obtained within minutes. In this way, reliable data and evidence will be provided for urgently needed analysis and for the ongoing UNFCCC negotiations. Extremely high quality, continuity and accuracy will be assured, as the classification process is integrated in the everyday work of the EPO and is subject to permanent peer review; in other words, the collective expertise of a patent office would stand behind the data. The data flow will potentially cover all patents related to ESTs worldwide. The project will go online via EPO's esp@cenet service in the first week of June 2010. Beyond this, the EPO's efforts lay a path for

other patent offices to utilise their intellectual resources for rendering a new service to the public and engaging themselves in the effort to mitigate climate change.

Conclusion

Of course, these projects still do not address all of the demands involved in the aforementioned “technology information platform”. In particular, additional data streams have to be established, which would provide licensing and market information for key technologies. The positive experience from our licensing survey shows that companies may be willing to provide such information, if an adequate platform is established. Furthermore, the current project has analysed only the supply side’s (technology

producers and owners) current state and dynamics. To complete the picture, capturing the needs of the demand side is absolutely necessary and this may happen only in close cooperation with key countries of interest.

¹ Dr Konstantinos Karachalios is a Scenarios Analyst at the European Patent Office.

² See United Nations Environment Programme, “Launch of UNEP-EPO-ICTSSD Joint Study on Patents and Environmentally Sound Technologies”, <http://tinyurl.com/y6jvltk> (Accessed 21 April 2010) for a more detailed project description.

³ See, for example, paragraph 194 in UNFCCC, Ad hoc Working Group on Long-Term Cooperative Action, Sixth Session, June 2009, <http://tinyurl.com/qz6m88> (Accessed 21 April 2010).

⁴ Lako, P., *Mapping Climate Mitigation Technologies/Goods Within the Energy Supply Sector – Study on the Art of Renewables for ICTSD*, November 2008, <http://tinyurl.com/y7ycksq> (Accessed 21 April 2010).

Views

***Bilski v. Kappos*: Discussing the future of business method and process-oriented patents – Rachel Chu¹**

The rapid advance of technology over the last thirty years has opened seemingly endless opportunities to improve and revolutionise our world, from the way we communicate and conduct business to our prospects for living longer and more comfortable lives. Often, the crux of these advances lies not only in physical objects – which may be machines, products or even living matter – but around the way in which information relating to an object is processed. The Internet (and related platforms) and personalised medicines are cases in point. Patent law has developed along with technology such that patents on methods or processes for using and interpreting information are now widely accepted and implemented. The use of process-oriented patents has in turn helped to establish these advances and incentivise further innovation.

Indeed, patent offices around the world – especially in the US, where patent law is considered to be the most expansive² – have seen an exponential increase in the number of

patent claims on computer software, business methods and biotechnological processes.

However, the practice of granting process-related patents based on broad standards is currently under heavy debate, both in the US and globally. This debate is tied to the appeal on a rejected claim on a business method patent, *Bilski v Kappos*, which is now before the US Supreme Court. The appeals process has opened the door to a wider discussion on what subject matter should be considered patentable today, especially when it comes to business method and process-related claims.

The case

At first glance, *Bilski* does not deal with all method-related patents, but only with claims on business methods. Specifically, Bernard Bilski and Rand Warsaw attempted to patent a risk-hedging technique, which involves a series of fairly broad steps instructing sellers of options on commodities to hedge the transaction. Their patent application was rejected by the US Patent Office (USPTO) on the basis that the claim did not contain patentable subject matter because no specific apparatus was disclosed to perform the steps.³ The applicants appealed to the Board of

Patent Appeals (BPAI) but it affirmed the patent examiner's decision.

In 2008, *Bilski* appealed the rejection to the US Court of Appeals for the Federal Circuit. *In re Bilski* (as the Federal Circuit case is known) was actually a re-visitation of the standard established by the Federal Circuit in 1998 in *State Street Bank v. Signature Financial*. In *State Street*, the Federal Circuit determined that a business method (particularly, a computer-implemented method for doing business, which in this case was a method for managing mutual fund accounts) is eligible for a patent if it produces a useful, concrete and tangible result. Subsequently, the *State Street* decision became the governing patent eligibility test and laid the path for many business and process-related patents, particularly in financial services, computer and biotech industries. Arguably, some of these claims may have stretched the limits of what can be considered novel or non-obvious subject matter. Along with this, prior to *In re Bilski* the Supreme Court had recently overturned several Federal Circuit interpretations of patent law in which patent holders or applicants' rights were expanded.

Against this backdrop, when it came to *In re Bilski*, the Federal Circuit reversed its approach in *State Street* and returned to a tighter test that had been applied by the Supreme Court in a number of older cases. This test is known as the "machine-or-transformation test" (now also known as the *Bilski* test), and holds that an invention must either a) be tied to a particular machine or apparatus or b) transform an article into a different state or thing in order for it to be considered patentable subject matter under Section 101 of the US Patent Act. Applying this test, the Federal Circuit ruled the *Bilski* claim did not pass – it was not tied to a machine (particular or general) and nothing physical or tangible was transformed. Through this decision, the court also more widely established that for a method to be transformative (and as a result, useful) it must be tied to a particular machine or physical article.

Bilski and *Warsaw* petitioned for a review by the Supreme Court and it was granted in 2009, on the grounds that the Federal Circuit had left

much unresolved, including how terms such as "transformation" and "particular machine" should be interpreted. The stated purpose of the review is to examine whether the application of the machine-or-transformation test to process-related patents is valid,⁴ considering that the Court has previously declined to limit patent eligibility for any new and useful process, and the Congressional intent in US patent code that patents would protect processes and methods of doing business.⁵ The Court's examination could plausibly focus on business methods (such as financial transactions) only. However, it could also result in a general statement about computer-implemented method claims and even process-oriented patents (which would include medical or "green" technologies).

Oral arguments took place in November 2009 and the Court has not yet handed down its decision. In the arguments, several justices were reportedly very sceptical of the eligibility of the *Bilski* claim,⁶ but as for the Court's current sentiments on the patentability of processes in general, we can only look to its previous use of broad standards and rejection of rigid tests.⁷ The legal world is divided on *Bilski* and on what should be addressed by the Court, and a record number of amicus briefs – 67 – have been submitted from the likes of IBM, Microsoft, Google and the Pharmaceuticals Research and Manufacturers Association. The USPTO has said that it is only looking for the Court to rule on the subject matter in the *Bilski* claim, but not beyond. However, many other stakeholders are hoping for a broader statement on process-related patents (although how inclusive the standard should be is under heavy debate). This is because ever since the Federal Circuit's ruling, use of the "*Bilski* test" in legal decisions has spilled over into many other sectors including computer and biotech process-related claims.

The process dilemma

In some cases, patent claims have been denied based on not being tied to a machine. This strict interpretation of the machine-or-transformation test has particularly affected financial services, software and biotech claims. For instance, in *Ex parte Motoyama* (2009), the BPAI rejected a software patent claim on the grounds that it did

not mention specific hardware to which the software is tied and as a result, failed the *Bilski* test – in the BPAI’s view, the claimed method could be implemented solely on software, which it said was a non-tangible element. In *Association of Molecular Pathology v USPTO* (2010), a New York district court ruled against claims on a method for diagnosing susceptibility to breast and ovarian cancer (by measuring the presence of certain nucleotides) based on their not fulfilling the machine or transformation test.⁸

Rulings like these have injected much uncertainty and confusion into R&D activities globally, in terms of the integrity of existing patents as well as the level of patent protection that will be available for future technologies. This is because they represent a shift in the way legal authorities in the US have approached the concept of patentable subject matter in the contemporary utilisation of process-related patents. The patentability of computer-implemented inventions (i.e. those that are implemented in a computer but are not physically part of the computer itself, including software) was established in US patent law by three Supreme Court cases in the 1970s and 1980s.⁹

Likewise, living matter has been considered eligible for patenting by many since the Supreme Court’s ruling in *Diamond v Chakrabarty* in 1980 (in which the Court ruled that a claim on genetically-engineered bacteria was eligible for a patent based on it involving human intervention). Since then, patents on various biotech substances and processes have become increasingly prevalent. The hottest patents today are for “biomarkers”, which are biological processes or elements, such as genetic or physiological abnormalities, that correlate with the likelihood of developing a disease or being susceptible to a treatment.¹⁰ For instance, the patenting of viral load (which measures the level of HIV messenger RNA in relation to immunodeficiency) became a key to demonstrating the effectiveness of combination therapy over monotherapy in treating HIV. Patents are not granted based on the biomarkers themselves, but on the method used to interpret their expression and on the new and useful application of the information they provide, such as the diagnosis of a disease or measurement of treatment effectiveness. The

ability to patent biomarkers (at least until recently) has helped drive the development of personalised medicine, and will only become more important in the future, especially given the high (and rising) risks and costs involved in biotech and biopharmaceutical R&D.

Stakeholders in both the software and biotech world argue that many new computer and medical inventions do, in fact, broadly satisfy legislative standards for patentability, i.e. they are methods with concrete, novel and useful applications and in many cases are tied to a specific physical object. In the case of biotech claims, the method intimately involves a particular (living) substance and in the case of software claims, the method is generally implemented on a computer (taken as a whole, the computer with the software operating on it becomes a specific invention).

Given that the recent application of the *Bilski* test has begun to disturb this consensus, both the software and biotech industries are looking for the Supreme Court to resolve the confusion regarding Section 101 requirements by establishing a general standard for process-related patents. It is hoped that this standard would be sufficiently flexible so as to leave room for future technological advances but exclude unsuitable claims (which for some includes *Bilski*). Stakeholders would also like to see the Court specifically affirm the patentability of software and biotech-related patents.

Beyond *Bilski*

In fact, while it is a possibility, if the Supreme Court only addresses the question of whether business method claims involves patentable subject matter, this will hardly resolve the existing uncertainty. When it comes to business methods many experts expect the Court to take a narrow view, especially regarding *Bilski*, which they argue is too abstract and non-technical to be patentable. This view could likely invalidate many claims and existing patents in insurance, banking and accounting sectors, which have become particularly widespread in the US.

However, many experts speculate that the Court will also address the broader use of the machine-

or-transformation test. If the test or one similar to it is affirmed for use in all business and process claims, standards in the US will be more comparable to other parts of the world, including Europe, where narrower standards are typically employed. A measure like this could also reinforce the existing resistance in these countries and regions to moves that would broaden the standards.

What all of this means for so many existing and future advances – many of which make use of certain novel processes or methods – really depends on the extent to which patent law has supported the rise of these innovations. No doubt the broad approach taken previously in the US has contributed to its global leadership in technology and business. At least in the US, if not elsewhere, the Supreme Court’s forthcoming decision in *Bilski* will have an impact on the path of future innovation.

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² According to the 35 U.S.C. 101 (Section 101 of the Patent Act), a patent may be issued under one of four classifications: a “machine,” a “manufacture,” a “composition

of matter,” or a “process.” Furthermore, a claim must be useful, novel, non-obvious and definite. In the past, the Supreme Court has declined to limit the standard for patent eligibility of any new and useful process beyond excluding laws of nature, physical phenomena and abstract ideas.

³ Board of Patent Appeals and Interferences, Opinion on Appeal No. 2002-2257, Heard 8 March 2006.

⁴ Supreme Court Docket No. 08-964 *Bilski v. Kappos*.

⁵ See 35 USC, Sections 101 and 273.

⁶ Quinn, G. “*Bilski* Arguments Complete at the US Supreme Court”, IPWatchdog.com Blog, 9 November 2009, <http://tinyurl.com/yb7hsf5> (Accessed 12 March 2010).

⁷ Macedo, C. & McCaffrey, N. “How the ‘Maching-or-Transformation’ Test in *Bilski* is Failing”, Intellectual Property Watch, 16 October 2009, <http://tinyurl.com/yk4fvv2> (Accessed 12 March 2010).

⁸ Noonan, K. “Round One Goes to the ACLU”, Patent Docs Blog, <http://tinyurl.com/ykzf9uq> (Accessed 7 April 2010).

⁹ *Gottschalk v Benson* (1972), *Parker v Flook* (1978) and *Diamond v Diehr* (1981). As a result of these three cases, a software algorithm itself is not considered patentable, but if it is implemented in a physical machine or process (and this implementation involves a transformation of an article) the invention as a whole is considered patentable (and the software component may be patented).

¹⁰ DiLenge, T, et al, “Brief of Amici Curiae Biotechnology Industry Organization, Advanced Medical Technology Association, Wisconsin Alumni Research Foundation & the Regents of the University of California in support of neither party”, 2009.

New and Notable

Challenges in IP education: Maastricht University’s Masters in Intellectual Property Law and Knowledge Management – Anselm Kamperman Sanders¹

Europe is still lagging behind in terms of innovation. Research centres are coming up with breakthrough technologies, but the commercial follow-up is still not where it should be. As part of the EU’s “2020 strategy”, the European Commission has articulated the desire to bring European research closer to business. In terms of education this means that students and researchers need to become innovation-savvy, learning to think ahead about practical applications for even basic research. Valorisation of knowledge, awareness of intellectual property and technology transfer will have to become more integrated in the curricula on science and

technology in both research universities and universities of applied science.

Still, not everyone needs to become a specialist in the field of IP law or knowledge management. Not everyone needs to know how to write a patent application or how to act as a trademark agent. Not everyone needs to know about taxation and management of intellectual assets or about valorisation of IP and licensing contracts. And not everyone needs to represent an IP litigant in court. These services have traditionally been provided by lawyers, economists, patent and trademark agents and business graduates.

The demand for multidisciplinary IP education

Yet, what is visible is that modern industry and research institutes require integrated solutions, ones through which intellectual assets are reared and nurtured from the lab to the product or service incorporating the innovation.

Furthermore, for the knowledge generated in the laboratories to have an impact on innovation, a long-term strategy, combining technical, legal and marketing concerns, is necessary.

It is not enough then for students taking technical education to become more IP-savvy. The hitherto fragmented set of traditional providers of professional services, each working in a sub-domain relevant to innovation, will have to learn too. This means that specialized programmes teaching intellectual property must change to deliver advanced graduates that can assist in supporting the innovative process and strategy from lab to market. This not only means that graduates need to have a deep knowledge of IP law, economics and policy, but they must also be able to connect the dots between management, innovation strategy, patent drafting and litigation in order to deliver an integral picture of innovation.

The challenges of forming a multidisciplinary IP programme

Meeting the challenges of multidisciplinary teaching in intellectual property law and knowledge management is not an easy feat. First, traditional professions in law, patenting and trademark management are highly regulated. This means that any such programme will have to set its end terms according to the demands from the national bar associations and/or national or regional organisations for patent and trademark agents. Second, the curriculum needs to be tailored to advanced students and professionals, involving particular demands for teaching staff, infrastructure and facilities. Third, the curriculum needs to be coherent, even when taught by specialists from multiple jurisdictions teaching their own discipline in a multidisciplinary setting. Fourth, the graduate needs to be conversant with multiple disciplines, methodology, and discourse across disciplines in order to be effective, regardless of his/her professional background.

In short, the student needs to learn from specialists, but should also engage with peers with different disciplinary backgrounds.

Introducing Maastricht University's new Advanced Masters in Intellectual Property Law and Knowledge Management (IPKM)

At Maastricht University Faculty of Law such a programme has been operational since September 2009, only a few months after a committee of experts selected by the Dutch-Flemish Accreditation Organisation formally gave the green light. Two masters are offered – an LLM track and an MSc track, with a shared core curriculum on IP law. Eight pioneering students were selected for the first year, each having the added task of critically assessing the programme. With the students' background split equally between lawyers and those with a background in science and technology, it was possible to test their response to studying IP law together in the common core, while still specializing in their respective LLM or MSc track. With all education offered in the form of Socratic teaching and problem-based learning using real-life cases it was possible for the students to learn not only from the experts, but also from each other. All problems were presented in the form of assignments, case-studies and mock trials. This forced the non-lawyers to interact with legal experts, and vice-versa, the lawyers with those technically trained. Very quickly a picture emerged of the learning curve that different students faced in order to become part of the problem-solving team. With the odd economist and linguist thrown in, the discussions always brought new insights and creative solutions. Several teachers have remarked that they learned a lot from the students.

While the first batch of students will graduate in the summer of 2010, some part-time students will continue their studies next year. With some 30 applications to date for the next academic year, the programme appears to have made a positive impact in the world of advanced IP education. All current graduates seem to have been picked up by industry and practice even before the award of any diploma. Next year's candidates have impressive backgrounds in law, technology and political science and will come from all over the world. It will be difficult to select the best, as the programme has a maximum capacity of around 24 students; taking

in more would likely cause the unique teaching methodology to unravel.

Some plans, however, fell by the wayside for this first year due to practical and financial constraints, such as an IP Advanced Update lecture series (open to IPKM students and the public). Still, several outreach activities and dialogue meetings, including one co-organized with the Stockholm Network on Standards and Intellectual Property Law, are to take place in the near future in the newly opened “Maastricht University Campus Brussels” building.

For the immediate future the ambition is to make the programme sustainable and stable in terms of student numbers and to provide the graduates with internship and job opportunities. In part, Maastricht University tries to play an active role itself, in linking the programme to its contract

research and capacity building efforts in the Institute for Globalisation and International Regulation, which is a multidisciplinary research institute that deals with international and European economic law and policy.

If you wish to know more about the Advanced Masters Intellectual Property Law and Knowledge Management (LLM/MSc) at Maastricht University and the expert teachers in the programme, please visit the programme’s website at <http://tinyurl.com/37ch5co>.

¹ Anselm Kamperman Sanders PhD is professor of intellectual property law, director of the Institute for Globalisation and International Regulation and International Regulation and the Masters Intellectual Property Law and Knowledge Management (LLM/MSc) at Maastricht University Faculty of Law.

New Publication by the Stockholm Network

Standards, Competition and Innovation

The Stockholm Network’s latest polybrief¹ explores the debate on standards, competition and innovation.

The polybrief discusses the importance of standards in our developing industrial society and key players and mechanisms for setting standards. It examines how standards are set, whether it be informally through the market by virtue of a product or protocol’s dominant position or formally by governments or standard-setting organisations. Examples of various standards-setting bodies, at different levels of government and in different sectors, are discussed.

The polybrief goes on to explore the relationship between intellectual property rights and open standards. It unpacks the scope of proprietary-based standards, defined as those which are transferred or diffused using IPRs, and so-called “open” standards, defined as those that are

publicly accessible on non-discriminatory and reasonable terms.

The point is made that all of these types of standards are legitimate and important depending on the circumstances. Opening standards to the public can allow for greater competition in implementation and the development of new and better standards and end products. And, proprietary-based efforts are important for incentivising the creation of path-breaking innovations and market standards.

With this in mind, the polybrief tackles the debate between open and proprietary-based standards. The most popular arguments are raised, including the idea that open standards promote more competition and better innovation than proprietary-based efforts, which are sometimes considered to be closed standards, even though they may be publicly accessible.

The idea that proprietary and open standards are not compatible is questioned, with several cases mentioned in which standards that would be considered as “open” in fact involve or rely on IPRs, including Google’s Android and different patent pools in the field of wireless technology. It

is emphasised that the dichotomy between proprietary-based and open standards need not exist. Both kinds of standards are crucial for maintaining forward momentum in the development of information, communication and network technologies, and in many cases they work together.

Finally, the polybrief identifies and outlines new governmental approaches to standards, including the European Commission's EXPRESS report and the ongoing discussion in the European

Parliament, led by Malcolm Harbour, chair of the Committee on the Internal Market and Consumer Protection. It is recommended that policymakers and members of different standards communities seek to balance the different approaches to standard creation discussed in the brief, and not emphasise one at the expense of the other, if they intend to optimise innovation and competition.

¹ Stockholm Network Polybriefs provide concise summaries of pressing issues and debate throughout Europe.

Upcoming Event

Intellectual Property, Open Source and Standards: Friends or Foes?

Date: Tuesday, 1st June 2010

Time: 9:30-12:30

Venue: Maastricht University Campus Brussels, Avenue de l'Armée / Legerlaan 10, 1040, Brussels

The Institute for Globalisation and International Regulation at Maastricht University Faculty of Law and the Stockholm Network Intellectual Property & Competition Programme are delighted to invite you to a forum and debate on "Intellectual Property, Open Source and Standards: Friends or Foes?"

The importance of standards to our societies is growing as technology moves into increasingly complex territories, and competing companies are inclined to establish common ground. This common ground helps to ensure that the assortment of technological possibilities is kept to a necessary minimum, whilst also establishing a widespread level of compatibility and quality. Standards offer a shared language that technologies use to communicate with one another, allowing for greater interaction between products or components. This can mean improved interoperability, interconnectivity, and commoditisation – all buzzwords for a more beneficial market.

In the discussion on standards, a distinction (and at times even a dichotomy) is often made

between standards based on proprietary efforts - which are to be protected by intellectual property rights - and standards that are based on collaborative or open efforts - such as via an open source. Indeed, there is a heated Europe-wide debate on the nature and characteristics of future technological standards, not least in the context of government procurement and policies in this area (such as the Expert Panel for the Review of the European Standardization System).

This event aims to address some of the burning issues in the standards debate. Key questions to be discussed include: Should standards be based on open-efforts or on proprietary models? Should countries in Europe opt for a more specific model of standardisation? How should we consider the relationship between patents and standards, and what are the implications of not allowing standards to be protected by IPRs? Is the dichotomy between open and proprietary standards at all justified, or are these types of standards in fact complimentary?

Speakers include (in alphabetical order): **Ms Helen Disney**, Chief Executive, Stockholm Network; **Malcolm Harbour MEP**, Chairman of the Internal Market and Consumer Protection Committee, European Parliament; **Prof Anselm Kamperman Sanders**, Director Masters Intellectual Property Law and Knowledge Management, Maastricht University Faculty of Law; **Dr Meir Perez Pugatch**, Director of Research, Stockholm Network & Senior Lecturer, University of Haifa; **Dr Dalindyabo Shabalala**, Assistant Professor, Maastricht

University Faculty of Law; **Prof Alain Strowel**, Universitaires Saint-Louis et Université de Liège; **Prof Damien Geradin**, partner, Howrey LLP and Professor of competition law and economics, Tilburg University.

To RSVP please contact Dr Cristina Palomares, Chief Operating Officer, Stockholm Network.

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News Flashes: Top Stories in the World of IP and Competition

Settling (and unsettling) “net neutrality”

The European Parliament and Council of Ministers agreed on the final version of a heavily negotiated Telecoms Package in November 2009. Among others, the package includes several measures that aim to promote “net neutrality” and “net freedoms” for European citizens. National telecoms authorities will be able to set minimum quality levels for network transmission services. In addition, under new transparency requirements, consumers are to be informed – before signing a contract – about the service to which they are subscribing, including traffic management techniques and their effect on service quality, as well as any other limitations (such as bandwidth caps or available connection speed). The Commission has also pledged to keep net neutrality under close scrutiny and to report on it regularly to the European Parliament and the Council of Ministers.

Across the Atlantic, it is uncertain if similar plans will be implemented in the US. In September 2009, the Federal Communications Commission (FCC) released plans to bar internet service providers from blocking or slowing certain traffic due to heavy bandwidths and to require them to be transparent about network management, as part of a move to increase broadband access across the US. However, in April 2010 a US appeals court ruled that the FCC does not have authority to sanction cable firms, including the defendant Comcast, for slowing some net traffic. Nevertheless, in May the FCC announced it would go ahead with its earlier proposals, by regulating ISPs as telephone networks which are within the FCC’s mandate. However, it appears

unlikely that the newest net neutrality plans will be approved or implemented for some time.

<http://tinyurl.com/yb3jw5w>
<http://tinyurl.com/yckzht6>
<http://tinyurl.com/2wdlz3n>

The power to choose

In response to demands by the European Commission to end its practice of tying its Internet Explorer browser to the Windows PC operating system, Microsoft announced in October 2009 that it will give consumers the choice of twelve different web browsers as part of the installation process. The Commission has supported this move, resolving the nine-month antitrust row between the EU and Microsoft, which is the latest in a decade-long series of competition issues between the two. The case opened based on complaints from rival browsers, such as Google’s Chrome and Mozilla’s Firefox, that bundling Internet Explorer to Windows affords Microsoft a 90% share of the global PC browser market. Microsoft’s new commitment will run for five years.

<http://tinyurl.com/yes4vyo>

Patenting made easier

In December 2009, industry ministers from the EU Member States reached a deal on setting up a unified European patent system. They agreed on two key foundations, the establishing of a European and EU Patent Court (EEUPC) and a single EU patent, with the goal of reducing costs and improving transparency in patenting activities in Europe. Currently, patenting an invention throughout the EU costs eleven times as much as it does in the US. Plans for EEUPC include a

central court plus local or regional courts, which together would have exclusive jurisdiction over litigation on EU and European patents. In addition, the Council has nominated a Select Committee to make decisions on fees for the operation of a single European patent. However, despite these steps forward, the major issue of translation and the cost of translating patents is not addressed, except to suggest that a separate regulation is need to resolve the issue. In addition, fundamental legal concerns by some Member States reportedly remain unresolved.

Meanwhile in the US, the Senate Judiciary Committee agreed in March 2010 on a bipartisan “Managers’ Amendment” to the “Patent Reform Act of 2009” (S.515), which was approved by the Committee last year and has been sitting in the Senate waiting for a vote. The amendment would completely substitute the 2009 version of the bill and represents an important step towards a nearly decade long attempt to reform the US patent system. The Amendment aims to establish a simpler, objectively-based, transparent patent system. S.515 now includes such measures as the introduction of a first-inventor-to-file system and a new robust, procedure for reviewing patents granted, as well as increased funding to the US Patent Office. It is unclear how quickly the new amendment will be able to move through the House of Representatives.

<http://tinyurl.com/yjnvncq>
<http://tinyurl.com/ykhcdrd>
<http://tinyurl.com/yacupj6>

China gets tough (but tough enough?)

In a country where software piracy is rampant, in April 2010 a Shanghai court ordered a Chinese insurance company to pay 2.17 million yuan (\$318,000) to Microsoft Corp. for using unlicensed copies of the company’s software. Dazhong Insurance Co. claims that Microsoft’s prices were “irrational” and reflected their “monopoly status”, and refused to compensate the software company in prior negotiations. Microsoft reports that although it has lowered prices for Microsoft Office to less than a third of the price in the US, this has not translated into a dramatic reduction in piracy.

This rings true in a report from the Business Software Alliance (released in May 2010) which suggests that computer users in the Asia Pacific region continue to inflict the most significant financial damage in the world by their use of pirated software. Total losses worldwide amounted to \$51.4 billion in 2009. According to the research, close to 60% of the 900 million pieces of software in use in this region are unlicensed, and most of this use occurs within companies. However, several Asian countries are included in the list of 30 countries with the lowest rates of software piracy, including Japan, Singapore, Taiwan and South Korea. The country with the lowest rate of software piracy was the United States, with an estimated 20% of software in use there found to be illegal.

<http://tinyurl.com/37x8cdl>
<http://tinyurl.com/38dak7j>

ISPs off the hook in Australia and Italy

In a landmark case in February 2010, Australian courts have ruled that internet service providers (ISP) cannot be held responsible for its users’ illegal downloads. Some 34 movie production houses took iiNet, Australia’s third largest ISP, to court because it failed to stop the illegal downloads of their films. The production houses included Australian divisions of Universal Pictures, Warner Brothers, and 20th Century Fox. Federal Court Justice Dennis Cowdroy decided that iiNet was not responsible for users, noting that allowing this would open the flood gates for many copyright infringement lawsuits.

A similar ruling in Italy also holds that ISPs are not liable for content. In April 2010, the Court of Rome rejected a request from the Audiovisual Antipiracy Federation that Italia Telecom provide details of users who illegally download copyrighted material and block their access to peer-to-peer websites.

<http://tinyurl.com/yjm8678>
<http://tinyurl.com/37ersna>

Online service provider dilemmas

The Motion Picture Association (MPA) has won a court ruling against Newzbin, a website accused of aiding the downloading of illegal copies of films and video clips. While it did not host any pirated material, Newzbin was a search site that helped its paying users locate all the bits for a film uploaded on Usenet and download them en masse. The High Court in London ruled that by organising its system to encourage the downloading of protected films and TV programmes, Newzbin is in fact liable for the copyright infringement of its users. Even though Newzbin had placed notices telling users of its “notice and takedown” policy, the Court found that its actions did not match its policy. The site is thought to have had more than 700,000 users.

This is the first case in the UK to prohibit the authorisation of copyright infringement on the internet. For ISPs, the case can be seen as providing some clarity for online service providers as to how to avoid infringement – put in place basic safeguards and do not blatantly sanction infringement.

It still remains to be seen how video-streaming sites like YouTube will be treated. In Italy the government is proposing new laws that would require YouTube – and sites like it – to attain a broadcasting license to stream videos legally. In the US, the *Viacom v YouTube* case is heating up again, with fresh accusations from Viacom that YouTube turned a blind eye to illegal video clips on its website.

<http://tinyurl.com/yg338dr>

<http://tinyurl.com/yzi75sp>

<http://tinyurl.com/yg7s2tk>

Navigating freely

At a time when most companies are suing to protect intellectual property rights, Nokia is giving its IPRs away. In January 2010 the telecommunications giant made its satellite navigation system, which it spent over £5.6bn on in 2007, available for free through download to anyone with a GPS-enabled Nokia device. Full coverage of 183 countries will be available to 76 countries in 46 languages, with more countries being added later in the year. Nokia will also allow other satellite navigation companies to use their data. Garmin, known best for its in-car navigational systems, is just one of the companies who have begun to use the service.

Some have suggested the move is a defensive tactic by Nokia, the world’s largest mobile phone manufacturer, as products such as iPhone and Google’s Android Nexus One take over the market for “high-end” mobile phones.

<http://tinyurl.com/yjrltsa>

Pirate Party fails to impress

Pirate Party UK (PPUK), which had hoped to make waves in the 2010 UK elections, received just 1,340 votes. The party had run candidates in nine constituencies arguing against copyright controls on the internet.

The PPUK leader Andrew Robinson, who received just 173 votes in Worcester, had maintained that the 2010 election could be a springboard for European elections in 2014, where they felt they could emulate the Swedish Pirate Party which has secured two MEPs.

<http://tinyurl.com/2crpyuf>