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Will the Patent Act Survive 2110?

Looking back

It is not generally known that the Patent Act 1910 marked the end of an era in which no patent legislation existed. A major feature of the latter half of nineteenth-century Europe was that of an anti-patent sentiment, but it was primarily in the Netherlands that it actually gained a foothold.¹ In 1864, the whole industrial sector presented a petition to the King, requesting that the current patent system, which had been introduced in 1817, be abolished. There were several reasons for the movement. Some critics put forward philosophical arguments, such as whether or not intellectual ideas should have 'owners', who would be able to monopolise their use (the present-day equivalent is the idea that information should be free).

Others were in agreement with the patent principle and accepted the argument that it was beneficial to society as a whole to encourage innovation by rewarding inventions. Those favouring this view asserted that it would be too difficult to create a system in which 'real' innovation would be rewarded. This was summarised by *The Economist* in 1851:

*'The community requires (...) that skilful men who contribute to the progress of society be well paid for their exertions. The Patent Laws are supported because it is erroneously supposed that they are a means to this end'*²

The patent system was abolished in 1869, but it is noteworthy that this did not mean that there were no more innovations or technological changes – the groundbreaking invention of Willem Einthoven that led to the electrocardiogram (the string galvanometer³) is a case in point. Schiff⁴ (1971) researched inventive activity in Switzerland and the Netherlands in the 'patent-free' period (1869 to 1912 in the case of the Netherlands) with that of countries with a patent system. He began by asking whether patents markedly increased the level of inventive activity, before examining whether, if so, this also resulted in a more rapid rate of industrial development in a country. No clear picture emerged from his findings in relation to the first question, but there nevertheless appears to be enough evidence that the reintroduction of a

¹ Machlup F. & E.T. Penrose (1950) The Patent Controversy. *The Journal of Economic History*, X(1), 1-29.

² Jaffe A. & J. Lerner (2004) *Innovation and Its Discontents*. Princeton University Press, 86-87.

³ Barold, S.S. (2003) Willem Einthoven and the Birth of Clinical Electrocardiography a Hundred Years Ago. *Cardiac Electrophysiology Review* 7(1).

⁴ Schiff, E. (1971) *Industrialization without national patents, The Netherlands 1869-1912, Switzerland 1850-1907*. Princeton.

patent system in 1910 did lead to greater levels of inventive activity.⁵ The lack of patent protection did not have any noticeable effects on the rate of industrial development.⁶

Recent developments

As we celebrate the hundredth anniversary of the Patent Act, little appears to have changed compared to the situation that prevailed as the nineteenth century ended and the twentieth began. Once again, there is growing resistance to patents, the patent system and the quality of patents. This is particularly noticeable among entrepreneurs with small and medium-sized businesses and the IT industry, not least – as far as the IT industry is concerned – because of the emergence and success of open source.⁷ Many people point to the rise of the IT industry in Silicon Valley in the 1980s, the enormous growth of which came about without the need to worry about patent protection. By the time a patent was granted, the software in question would have become outdated. Software and other IT specialists enjoyed a great deal of freedom in their field of operations, unfettered by copyright or patent restrictions. But it was the growth of open source and open innovation projects that caused many people to wonder whether or not patents were necessary for encouraging technological progress, or whether they actually served to hinder innovative and technological developments. It was no wonder that the introduction of a Software Directive by the European patent community led to unrest among a significant proportion of the IT industry, so much so that when the European Commissioner responsible for the Directive visited the Krasnapolsky Hotel in Amsterdam, he was greeted by a large demonstration.

It is mostly foreign – American in particular – economists who have involved themselves in the debate about whether patents stimulate innovation. There has recently been an increase in anti-patent publications, as apparent from a large number of anti-IP bloggers⁸ and academic publications.⁹ This has been caused by the discussions about the activities of the music industry in taking legal action against children and grandmothers for illegal mp3 downloads, the use of patents in developing countries resulting in their having reduced access to anti-AIDS medicines, for example, royalty stacking¹⁰ and the consequences for downstream R&D, to name but a few. The rise of an actual Pirate Party,¹¹ which secured no fewer than seven per cent of the votes in Sweden at the last European elections, is a further sign that anti-patent

⁵ See Dutton, H.I. (1984) *The patent system and inventive activity during the industrial revolution 1750-1852*. Manchester University Press, 5-6.

⁶ For some interesting examples of industrial development in the Netherlands in the second half of the nineteenth century, when no patent protection existed, such as the emergence of two national industries – from Philips to margarine factories – see Cullis, R. (2007) *Patents, inventions and the dynamics of innovation: a multidisciplinary study*. Edward Elgar, 212-213.

⁷ Kogut B. & A. Metiu (2001), Open-Source Software Development and Distributed Innovation (Wharton School, University of Pennsylvania), *Oxford Review of Economic Policy*, 248-264.

⁸ Techdirt, (techdirt.com/articles/20090921/0131126257.shtml), Patently-Silly (patentlysilly.com/), Lawrence Lessig's blog (<http://www.lessig.org/blog>).

⁹ See, for example, Nobel Prize winner and economist Professor Stiglitz, J. (2006) *Making Globalization Work*. Norton & Company. See also note 2.

¹⁰ Lemley M. & C. Shapiro (1992), Patent Hold Up and Royalty Stacking. *Texas Law Review*, 85, 249.

¹¹ See piratpartiet.se/international/english.

sentiment is no longer at the smouldering stage, but instead is threatening to turn into a burning issue.

The patent system needs major repairs

It is interesting to see how academics are analysing this anti-patent trend. Two well-known American economists, Michele Boldrin and David Levine, recently published a book¹² in which they fulminate about the patent system, which they assert serves only to inhibit innovation.¹³ Abolition is the key.¹⁴ These are not lone voices in the wilderness, but part of a movement that appears to be gaining ground, as evidenced by the wide-ranging support that opponents of patents are receiving from blogs and academic publications.¹⁵ The increasing criticism of the way the patent system works has, in the United States at least, led to greater activity in government and the courts in recent years. In 2003 – after extensive hearings where testimony was heard from anybody with even the remotest connection with the patent system – the US Federal Trade Commission published its report entitled ‘*To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*’,¹⁶ containing recommendations for modernising and improving the stuttering patent system. The recommendations are very much worth reading, and are relevant to Europe, too. In the US, this not only immediately unleashed a heated discussion,¹⁷ but also resulted in action on the part of Congress, which set about making a major overhaul of the system.¹⁸ The country’s courts, too, became involved between 2003 and 2009. The criteria for granting patents were tightened up, and the opportunities for taking out short-term injunctions for patent infringements were drastically curtailed. In academic circles, it is primarily economists who are at the forefront of the discussions on patent reform and its effects.¹⁹

This does not mean that the way the patent system works has been ignored in Europe, but it has to be said that, in typical European fashion, there have only been words, ‘recommendations’, and surveys. Little progress has been made on the legislative front, as

¹² Boldrin M. (University of Minnesota) & D.K. Levine (University of California, Los Angeles) (2008), *Against Intellectual Monopoly*, may be downloaded freely from dklevine.com/general/intellectual/againstfinal.htm, available in hardback via Cambridge University Press.

¹³ When warnings were issued in the 1980s – I think it was by S.K. Martens – about the anti-competitive aspects of intellectual property, the IP world was too small.

¹⁴ See also Jaffe & Lerner, note 2.

¹⁵ This is also the conclusion on quantitative and econometric grounds, see the authors listed under note 12, Boldrin, M. & D.K. Levine. (2005), The economics of ideas and intellectual property. *National Academy of Sciences, PNAS*, 102(4) 1252-1256, who assert: ‘*Our own conclusion, based on empirical as well as theoretical considerations, is that on balance it would be best to eliminate patents and copyrights altogether*’.

¹⁶ ftc.gov/os/2003/10/innovationrpt.pdf.

¹⁷ See, for example, Merrill, S.A., R.C. Levin & M.B. Myers (2004) (eds), *Seven Recommendations for a 21st-Century Patent System*, Committee on Intellectual Property Rights in the Knowledge-Based Economy, National Research Council.

¹⁸ The Patent Reform Act, for an overview see one of the best-known patent blogs in the US, ‘Patently-O’, patentlyo.com/patent/2007/04/patent_reform_a.html.

¹⁹ Gallini, N.T. (2002), The Economics of Patents: Lessons from Recent U.S Patent Reform. *Journal of Economic Perspectives*, 16(2), 131-154.

shown by the attempts at creating a Community Patent.²⁰ The process has been deadlocked for years with successive EU Commissioners trying to breathe new life into it, but to little effect. It has been reported that one EU Commissioner described IP as a ‘headache’ for which no electoral gain was to be had.²¹

Patents and academic IP education in the Netherlands

There is now a deafening silence in the Dutch academic IP community, which at present appears to be concerned only with knowledge of substantive patent law. Publications on the relationship between patents and innovation are very thin on the ground, as is awareness of the significance of the economic and legal value of knowledge and the role that patent management, for example, has to play in it. There is also a willingness to leave criticism of how the patent system works to others outside the Netherlands, which is surprising given that academic tradition in patent law has been dominated in recent decades by practitioners from the legal profession and the courts who, as a result of their background and experience, are primarily interested, and have expertise in, the interpretation of aspects of substantive patent law. It is these people, with practical experience, who occupy the Chairs of Intellectual Property at Dutch universities. There is not a single legal or economics faculty at a university in the Netherlands that has a Chair in Intellectual Property Management or a related subject where the social, economic and market aspects of patents are taught.

Industrial expertise in the field of knowledge management and appreciation of industrial property is generated by practical business experience, and not as a result of universities offering a relevant curriculum for young entrepreneurs or lawyers or economists. No serious attention is paid to the role of patents in the economic process, the importance of patents in innovation processes, the value of patents, the conversion of patented knowledge into ‘value’ for an organisation or patent strategy at any legal or economics faculty.²²

All this will have consequences for the way in which future generations of entrepreneurs regard the economic significance of patents. The lack of any university teaching of economics-based patent management will also be reflected in the actions of politicians and, in more general terms, in the users of patented knowledge.²³ Last but not least, it will impact

²⁰ Community Patent; the most recent position at the time of writing of this article is the ‘Recommendation from the Commission to the Council to authorise the Commission to open negotiations for the adoption of an Agreement creating a Unified Patent Litigation System’ (March 2009).

²¹ See also EU Commissioner McCreevy on EPLA, IPEG blog, <http://www.ipeg.eu/blog/?p=48>.

²² Not to be confused with *litigation* strategy: acquiring the most effective protection for IP by strategically using litigation tools and geographical opportunities.

²³ See Maskus, K.E. (June 2005), *Emerging Needs for Including Intellectual Property Education and Research in University Curricula*, paper for WIPO International Symposium on Intellectual Property Education and Research, Geneva.

upon Europe's competitive strength vis-à-vis major powers like China as well.²⁴ It is therefore no great surprise to learn that most CEOs and CFOs have no idea what role, if any, patents play in their organisations. There are a few exceptions: Philips and Thomson in Europe, for example, and many American companies (where, unsurprisingly, education places a much greater emphasis on the subject of IP management).

How will this be reflected in the Patent Act in 2110, assuming for the purposes of our argument that future generations of lawyers and economists can be persuaded to take patent protection seriously? As has been shown in the US, the way in which patents are granted and subsequently interpreted will, to a large extent, determine whether or not we will still have a Patent Act (or European equivalent if it ever reaches that stage), as will a greater focus in the education system on the significance of non-substantive aspects of the patent system. This brings us to the question of where the growing criticism of the quality of patents is coming from, and whether that will affect how substantive patent law will evolve and whether or not we will still have a Patent Act in 2110. Or perhaps we will see a revival of the anti-patent movement of the kind that existed in the nineteenth and early part of the twentieth century?

Patent auctions and the value of patents

The emergence of patent auctions in 2006 – started by Ocean Tomo²⁵ in the US – has at least gone some way towards highlighting the value of patents. Much has been said and written about the meaning of intangible intellectual property and patents in particular. It is generally recognised in both tax and economic-related dealings that patents should be treated as intangible assets,²⁶ although this has not led to a clearer insight into the 'value' of patents. What the auctions have done is to raise the popularity of patents as a value factor. The value at an auction is, after all, determined by the level of the bid for the patent by the bidder, anonymous or otherwise²⁷. However, the day-to-day reality is not quite that simple. The value at an auction is the price that is offered for the patent. As long as the reserve price is low enough, then a bid will soon result in a sale – in other words, in a sale price. But is that actually what the patent is worth? It depends on whom you ask. For the buyer and his accountant, it probably is: they will record the price paid as acquisition costs on the balance sheet in the form of goodwill. If, in the future, it starts to generate patent licence income that leads to a greater return than the acquisition costs, then the patent will have acquired a 'value'

²⁴ Even in China, the country that we in the Netherlands like to assert has little respect for IP, there is a university with IP Management on its curriculum, the University of Technology (Tsinghua University). See Hua Guo, Jones Day, China, *Case Study: IP Management at Tsinghua University*, (iphandbook.org/handbook/ch17/p09/).

²⁵ Ocean Tomo has recently moved the 'auction business', which has only produced minimal yields averaging less than the historical cost-price, to a smaller unit and focused increasingly on more lucrative activities such as litigation support and expert witness work.

²⁶ Blair, M (2001), *Unseen Wealth: Report of the Brookings Task Force on Intangibles*. Washington DC: Brookings Institution Press. Wilson, R.M.S & J.A Stenson (2008), Valuation of information assets on the balance sheet: The recognition and approaches to the valuation of intangible assets. *Business Information Review*, 167-182.

²⁷ Most bidders at auctions organized by Ocean Tomo did their bidding by telephone (that is, anonymously); it has been maliciously suggested that most bidders in recent auctions were patent aggregators like Intellectual Ventures (Bellevue, WA, USA); see also Millien and Laurie (2007), *Established and Emerging IP Business Models*. The Eighth Annual Sedona Conference on Patent Litigation conference paper.

that bears no relation to the price for which it was bought at the auction. If that knowledge is available at the time of the auction, for example in cases where a patent is sold which is already generating licence income, then that will provide a firmer base on which to determine its value. If you ask a lawyer who has to advise his client about the value of a patent on offer, then he will base his answer on a risk analysis. In the legal world, that usually means an opinion in which a prior art publication has popped up somewhere in the world which makes the patent worthless (as a result of being made null and void). However, if the same question is put to an IP manager in a company, then he will set the value according to where the patent fits into the organisation, and that depends on whether it serves to protect the organisation's own products or those of a competitor, allowing him to obtain a 'patent truce'.

Value of intellectual property

This is where patents, as intangible assets, are different to other assets. Value is contextual. If, in order to be able to trade its goods, an electronics manufacturer has to 'buy in' patent rights from third parties – in the form of a licence, for example – as well as components, the value of the licensed patents is set at the 'purchase value' of such rights: in other words, the price of the licence that has been paid to acquire the rights that are needed to get the goods to market. However, if a party has its back to the wall in a patent-related legal dispute, the 'value' of a patent that enables it to launch a counterclaim is many times greater than the 'objective value' that a similar patent would be worth in normal market conditions. The price that a buyer is willing to pay would therefore be greater than what would be considered justifiable in 'normal' market circumstances.

The price of an asset such as real estate is the transaction amount that is arrived at through market supply and demand or, in a non-auction context, a process of negotiation. This price may therefore be higher or lower than the value. It will be determined by market conditions, by strongly subjective motives on the part of both the buyer and vendor, and by their negotiating skills. The value arrived at in this way is the market value – the price that the market is prepared to pay – depending on the quality of the real estate, its location and general market conditions such as access to finance and so on. However, the market for patents is neither predictable nor logical.

Another illustrative example in this context is that of the value of investments (shares, bonds and other negotiable instruments). The overriding theory in this field assumes an '*efficient market*' – that the investment market calculates every relevant factor efficiently, thereby resulting in reasonably predictable market movements. The use of benchmark data is used as a starting point for buying and selling decisions. Unfortunately, a similar generic concept for intellectual property has not been developed, nor has the need for one been very widely accepted. The 'market' for patents is therefore anything but 'efficient'.

Value is not only a topic that returns again and again at patent seminars, but also one that leads to many kinds of discussions, question *and* academic debates. It also remains a reasonably untapped field, in which standards and best practices are lacking. This is apparent just from the fact that there are presently in excess of one hundred patent valuation methods. Such uncertainty about the value of patents will undoubtedly not help achieve a wider acceptance of patents as something that organisations should factor into their activities, nor to the realisation that patent policies should be an integral part of every business strategy.

Conclusion

Any contribution to a publication marking the hundredth anniversary of the Patent Act should end on a positive note, if only because a law that has lasted a century and forms the basis of the day-to-day activities of a large group of IP specialists and academics, merits such appreciation. However, it is not easy to be positive, not least because it is impossible to dismiss the impression that genuine renewal of the patent system continues to elude us. In addition, the courts in Europe, unlike the Supreme Court in the US, are insufficiently willing to take the lead in creating legal certainty and predictability in patent-related decisions. Hopefully, though, this is something we will be able to face up to the next few decades, resulting in a modern, Europe-wide, simple variant of the Patent Act 1910.