

## EVOLVING LANDSCAPE OF PATENT REMEDIES IN A CHANGING MARKETPLACE

The principal goal of intellectual property (particularly patent) laws is to foster innovation for the public good. Yet, the proliferation of patents could stifle technological advancement if the incidence and risks of undesirable innovation “hold-ups” are not addressed. This article draws on the recent developments in the information and communication technology sector, such as the ongoing global patent war involving smartphones and tablets, to support the contention that the patent system cannot continue to play the vital role in promoting innovation without recalibrating the balance between the competing, and sometimes conflicting, interests of divergent stakeholders in the patent system. More controversially, it is argued that courts should seriously consider going further to award ongoing royalties or prospective damages as a remedy under national laws.

Elizabeth Siew-Kuan **NG\***  
*LLB (Hons) (London), LLM (First Class) (Cambridge);  
Barrister-at-Law (Middle Temple, London),  
Advocate and Solicitor (Singapore);  
Associate Professor, Faculty of Law, National University of Singapore.*

### I. Introduction

1 The battle scene has changed: traditional patent battles have generally involved a few patents and litigants; going forward, some predict that the ongoing global patent war in smartphones and tablets is “likely a foretaste of more patent wars in the future”.<sup>1</sup> The stakes have become phenomenal as the loser faces potential ruin from legal costs and outsize awards of damages,<sup>2</sup> or even worse, the disaster of a

---

\* The author would like to thank Chao Hick Tin JA for the invitation to contribute to this special issue; Sam Ricketson, guest editor of this special issue, for his very helpful comments and suggestions on earlier drafts; Stephen Phua for his invaluable editorial assistance; and Fatin Nadiah Masud, final-year LLB student, National University of Singapore, for research assistance. The views expressed in this work are solely those of the author and the commentators do not necessarily agree therewith. Any errors and omissions remain the responsibility of the author.

1 See Steven Seidenberg, “A Bigger, Meaner Patent War”, *Intellectual Property Watch* (25 June 2012).

2 See, eg, the astronomical sum of US\$1.05bn in damages awarded by the jury to Apple Inc (“Apple”) (which may be tripled by the judge) in *Apple Inc v Samsung* (*cont’d on the next page*)

permanent injunction prohibiting the sale of its product.<sup>3</sup> The wars of the future may involve thousands of patents (if not, hundreds of thousands) and many interested parties.

2 That the information and communication technology (“ICT”) industry has become a battleground comes as no surprise. The typically complex and cumulative ICT products, such as those in mobile communications, are dependent upon interconnectivity and interoperability. Such products are more susceptible to conflicting claims of mutual infringement, especially where they suffer from poor patent quality and notice failure. In addition, some of these may be technically more difficult to design around and thus more vulnerable to hold-up challenges. Similarly, pioneers of leading technologies in promising sectors may be tempted to amass a “massive treasure chest of patents early on in the development of the technology”.<sup>4</sup> Take, for example, hybrid vehicles for which Toyota Motor Corp (“Toyota”) is reported to have filed more than 2,000 patent applications on its hybrid technology and components.<sup>5</sup> In the field of mobile network technology, for example, Samsung Electronics Co Ltd (“Samsung”) owns around 820 (or around 12%) of Long-Term Evolution (“LTE”)-related patents.<sup>6</sup>

---

*Electronics Co Ltd* (Case No 11-cv-01846) (DC California, 24 August 2012), one of the largest patent infringement damages in legal history. Interestingly, the jury awarded nothing to Samsung Electronics Co Ltd (“Samsung”). On the same day, the Seoul Central District Court hearing a similar case ruled that Apple and Samsung had infringed on each other’s patents. It imposed a temporary ban on the sale of some devices and ordered Apple and Samsung to pay US\$35,300 and US\$22,100 in damages, respectively. The small amounts of damages awarded by the South Korean court were in stark contrast to the humongous US jury award. Going forward, on the South Korean front, it seems highly probable that both parties will petition the South Korean court on the injunction ruling. Whilst in the US, as expected, Samsung has indicated that it will appeal the US ruling and the battle is expected to go to the US Supreme Court. In the meantime, stakes continue to mount as some predict that Apple may shift the battle to Google next and the war among the titans will rage on. The issues raised in these smartphone and/or tablet cases are far broader than those covered in this article and will be addressed separately in a subsequent work once the judgments become available.

- 3 At the time of writing this article, the hearing for preliminary injunction for *Apple Inc v Samsung Electronics Co Ltd* (Case No 11-cv-01846) (DC California, 24 August 2012) has been set for 20 September 2012. It will be interesting to see whether the court will follow the opinion of Posner J on this issue in *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012).
- 4 Justin Blows, “Toyota Prius: 2000 Patents and Counting”, webcast (21 January 2009) <<http://law.brrmedia.com/event/54823/partner/brr>> (accessed 8 August 2012), cited in Matthew Rimmer, *Intellectual Property and Climate Change: Inventing Clean Technologies* (Edward Elgar, 2011) at p 203.
- 5 See John Murphy, “Toyota Builds Thicket of Patents around Hybrid to Block Competitors”, *The Wall Street Journal Asia* (1 July 2009).
- 6 Long-Term Evolution (“LTE”) is a standard for wireless communication of high-speed data for mobile phones, which appears to be emerging as the top standard for the global mobile industry, and is commonly marketed as 4G mobile  
(cont’d on the next page)

3 It is imperative that the patent system continues to offer a conducive environment for innovation, by striking an appropriate balance among the competing interests of the various stakeholders such as the inventors and their investors, researchers, consumers and the general public. This is particularly acute in sectors that are more susceptible to innovation “hold-ups” that may result, *inter alia*, in costly undesirable disruption to businesses and barriers to technological integration and diffusion. The key to this endeavour may lie in the proper development and application of remedies in intellectual property (“IP”).

4 This article will attempt to develop on the works of eminent scholars on IP remedies. It will seek to highlight that, in certain circumstances, limitations may need to be placed on the exercise of the “right to exclude” so as to achieve an appropriate balance of rights between protection and competition. The grant of remedies, especially permanent injunctions, is one avenue to explore. The author argues, more controversially, that an award of ongoing royalty in lieu of injunctive relief, if properly utilised, is not only complementary to existing structures but also maintains a degree of protection that is not too excessively robust for further innovation, entrepreneurship and technological advances to take place.

5 This article will draw heavily on the US experience, primarily because the author believes that the recent US jurisprudence holds significant lessons that are highly instructive to every jurisdiction that has an interest in the impact that these developments are likely to have on the exploitation of patented products in an integrated world economy. While some of these factual matrices appear to be confined to the US at the moment, the subject matter of such disputes are unlikely to end at, or involve only, one jurisdiction.

## II. Role of patent system – Promotion of innovation for the public good

6 The traditional role of the patent system, which seeks to balance the competing objectives of encouraging innovation through

---

communication technology. It is reported that Samsung Electronics Co Ltd will “immediately sue Apple [Inc] if the latter releases products using advanced long-term evolution (LTE) mobile technology”: Kim Yoo-chul, “Samsung Set to Strike Back Against Apple”, *The Korean Times* (29 August 2012) <[http://www.koreatimes.co.kr/www/news/tech/2012/08/133\\_118544.html](http://www.koreatimes.co.kr/www/news/tech/2012/08/133_118544.html)> (accessed 5 September 2012). See also Josh Ong, “As 4G Patent Fight Looms, Samsung Has Nearly Twice as Many LTE Patents as Apple” *TNW Apple* (4 September 2012) <<http://thenextweb.com/apple/2012/09/04/as-4g-patent-fight-looms-samsung-nearly-twice-many-lte-patents-apple/>> (accessed 5 September 2012).

appropriate incentives and providing reasonable access to and use of the knowledge and information thereof, still holds true today.<sup>7</sup> To incentivise innovation for the public good, the patent system confers “exclusivity” on the patent owners to enable them to recoup research and development investments, in exchange for disclosure of the invention. While some may be tempted to assume that there is a causal connection between superior outcomes and enhanced protection as a means of “promoting the public good”, the trade-offs cannot be ignored.

7 Innovation is a complex and often expensive process fraught with risks and unpredictability. No one denies that the patent owner should be adequately protected and deserves returns from investment of considerable resources, yet the trade-off from enhanced protection is undoubtedly the loss of some degree of access and desirable competition, the preservation of which is equally important to the state of innovation.

8 The technological revolution spawned, in particular, by the biotechnology, nanotechnology and ICT sectors has cast the spotlight on the increasingly important role that IP plays in shaping innovation. In a changing landscape, the patent system needs to evolve and recalibrate to ensure that it stays relevant. Holding the public interest at its core, the IP system must strive to maximise the public benefit from scientific progress and technological advancements.<sup>8</sup> In particular, it must ensure, *inter alia*, that remedies granted serve to effectively promote innovation by aligning exclusivity conferred by protection and access necessary to promote a degree of competition so as to best serve the interests of all its stakeholders.

### III. Changing intellectual property marketplace – Patent assertion entities, non-practising entities, trolls and more

9 The IP marketplace has evolved in recent years from a traditional “closed” model of innovation based predominantly on a firm’s reliance on its own research and development to create and commercialise its own products, to the adoption, in some cases, of “open innovation” where firms acquire inventions that originated from

---

7 Elizabeth Siew-Kuan Ng, “Global Health and Development: Patents and Public Interest” in *Incentives for Global Public Health: Patent Law and Access to Essential Medicines* (Thomas Pogge, Matthew Rimmer & Kim Rubenstein eds) (Cambridge University Press, 2010) at pp 101–132.

8 See Farida Shaheed, *The Right to Enjoy the Benefits of Scientific Progress and its Applications*, UNHRC, 20th Sess, Agenda Item 3 (14 May 2012) <[http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session20/A-HRC-20-26\\_en.pdf](http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session20/A-HRC-20-26_en.pdf)> (accessed 10 July 2012).

others that fit into their business models.<sup>9</sup> The emergence of a division of labour between those who invent and those who commercialise most efficiently may help to expedite innovation, as well as lower the entry barriers for inventors who may otherwise have been prevented from bringing their products to the market for reasons such as lack of effective access to capital or markets.<sup>10</sup> *Ex ante* patent transactions and technology transfers have been lauded in some quarters, such as by the US Federal Trade Commission, as important pathways to innovation.<sup>11</sup>

10 Still, in recent years, the activities and business models of certain entities have served to highlight the potential deleterious effects of certain *ex post* patent transactions,<sup>12</sup> on innovation and society at large. A recent study<sup>13</sup> (which has been challenged by some)<sup>14</sup> on the business model of non-practising entities (“NPEs”) found that NPE litigation is growing rapidly in the US and revealed that the direct costs<sup>15</sup> imposed on the US economy by NPE assertions amounted to a staggering sum of approximately US\$29bn in 2011 or more than 10% of total national research and development investments by businesses in

---

9 See Federal Trade Commission, “The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition” (March 2011) at p 7. Take, for *eg*, large firms that have acquired and commercialised inventions that originated from start-ups and small companies.

10 See Federal Trade Commission, “The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition” (March 2011) at p 7.

11 See Federal Trade Commission, “The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition” (March 2011) at p 8.

12 Namely, transactions that occur after a firm that is accused of patent infringement has already invested in developing or commercialising the technology. See, for *eg*, Federal Trade Commission, “The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition” (March 2011) at p 8.

13 See James Bessen & Michael Meurer, “The Direct Costs from NPE Disputes” (Boston University School of Law Working Paper 12-34, 25 June 2012). For a review of that study, see, for *eg*, David Schwartz & Jay Kesan, “Analysing the Role of Non-Practising Entities in the Patent System” (Illinois Public Law and Legal Theory Research Paper No 13-01, 2012).

14 See, for *eg*, David Schwartz & Jay Kesan, “Analysing the Role of Non-Practising Entities in the Patent System” (Illinois Public Law and Legal Theory Research Paper No 13-01, 2012), where the authors criticised the methodology used in the study by Bessen and Meurer and opined that the estimated US\$29bn may be skewed too high for various reasons such as the study was based on a biased sample of non-practising entities defendants and the study may have included the settlements, verdicts and judgments to non-practising entities as part of the costs. See also Michael Risch, “Patent Troll Myth Exposed”, *Intellectual Asset Management* (July/August 2012), cited in RPX, “From Exposing NPE Myths to Explaining NPE Math” <<http://www.rpxcorp.com/index.cfm?pageid=14&itemid=25>> (accessed 6 September 2012), where the author examined a dataset of 971 litigations but had difficulties quantifying the true cost of the non-practising entities business model, because approximately 95% of the cases had been settled.

15 For *eg*, legal and licensing fees.

2009.<sup>16</sup> These NPEs acquire patents not for the purposes of protecting a market for production but mainly for setting traps for producers who may unwittingly infringe on the patent. Other terms that have been used to describe such entities range from the innocuous, such as “patent assertion entities” (“PAEs”),<sup>17</sup> to more pejorative ones like “patent trolls” and “patent sharks”.

11 The need to differentiate between the different types of NPEs cannot be emphasised enough because not all NPEs engage in patent-trolling conduct. Indeed, some like patent consolidators<sup>18</sup> (who license on reasonable terms in areas where there is a “tragedy of the anti-commons”),<sup>19</sup> universities and individual inventors (who do not commercialise or manufacture their inventions for one reason or another,<sup>20</sup> or those who invent with the hope that others may bring the invention to market) or start-ups (who may have been unsuccessful in commercialising their inventions) are not true “trolls”. Nor are we

---

16 The total US spending on research and development was reported to be US\$249bn in 2009; see Juha Saarinen, “US Patent Trolling Costs \$29b: Study”, *IT News* (27 June 2012). See also Richard Chirgwin, “Patent Trolling Cost the US\$29 billion in 2011”, *The Register* (27 June 2012), cited in Mark Summerfield, “A\$29 billion US Troll-Tax or Just Another Statistical Smokescreen?” *Patentology* (29 June 2012). In a separate survey by Article One Partners, it was revealed that non-practising entities litigation in high-technology industries represented 75% of all active litigation matters and more than 80% of intellectual property legal budget was spent on litigation defence activities; see Article One Partners, “Article One Partners Unveils Survey Results from IP Patent Litigation Study”, *Article One Partners Newsletter* (17 April 2012).

17 For a distinction between “patent assertion entity” (“PAE”) and the more commonly used term of “non-practising entity” (“NPE”), see the Federal Trade Commission, “The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition” (March 2011) at p 8 where the report uses the term “PAE”, rather than the more common “NPE”, to refer to firms “whose business model primarily focuses on purchasing and asserting patents”. Yet, unlike the term “NPE”, which may encompass patent owners that “primarily seek to develop and transfer technology, such as universities and semiconductor design houses. [PAEs] do not include this latter group”.

18 Take, for *eg*, situations where the patents that are required to produce a marketable product are owned by too many different patent owners, such that the resource is prone to under-usage. In such cases, the conduct of the patent consolidator may be useful.

19 See Michael Heller, “The Tragedy of the Anticommons: Property in the Transition from Marx to Markets” (1998) 111 *Harv L Rev* 621.

20 For *eg*, some independent inventors and investors may encounter undesirable resource limitations to commercialise their inventions. Many universities and research institutes do not commercialise their research for structural reasons. There are also patent consolidators who license on reasonable terms in areas where there is a “tragedy of the anti-commons”. See, for *eg*, Michael Heller, “The Tragedy of the Anticommons: Property in the Transition from Marx to Market” (1998) 111 *Harv L Rev* 621.

concerned with “owners preserving cost recovery strategies from the reasonable licensing of patents obtained from failed research projects”.<sup>21</sup>

12 A more detailed analysis of patent trolling by the author has been published elsewhere<sup>22</sup> and will not be repeated here, save to highlight a few characteristics. For instance, a new business model focussed on patent hoarding primarily to extract exorbitant settlements (that is, those far in excess of the patent value) from legitimate businesses has become a popular value proposition for some firms. Typically, they acquire “broad patents not to innovate, but solely to ensnare real innovators who might inadvertently cross the boundaries of [their] patent”.<sup>23</sup> When opportunities arise, they may ambush an unsuspecting innovator by alleging infringement of one or more of the patents in their vast portfolios. The innovator accused of patent infringement may already have invested in developing or commercialising the patented technology. In cases where the patented technology in question has already been widely adopted or incorporated into the final product or services of the victim, the patent troll may extract a payment in excess of the patent value by leveraging on the disproportionate harm that an injunction may bring to the victim. Such undesirable patent enforcement strategies may present some businesses and innovators with equally debilitating choices, for example, to:

- (a) abandon the business or innovation altogether;
- (b) withdraw from the field until they can invent around it;
- (c) use the patent and face potential lawsuits; or
- (d) pay the exorbitant price set by the patentee.

13 Indeed, the high profits and volatility in the technology markets have been noted to make patent litigation attractive for companies that are “looking to wound competitors”.<sup>24</sup> As US Federal Judge Richard Posner recently opined:<sup>25</sup>

---

21 See generally Elizabeth Siew-Kuan Ng, “Patent Trolling: Innovation at Risk” [2009] EIPR 593 at 596.

22 See, for eg, Elizabeth Siew-Kuan Ng, “Patent Trolling: Innovation at Risk” [2009] EIPR 593 and Matthew Rimmer, *Intellectual Property and Climate Change: Inventing Clean Technologies* (Edward Elgar, 2011) at pp 197–235.

23 See James Bessen & Michael Meurer, *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk* (Princeton University Press, 2008) at p 2.

24 See the comments by Posner J in a Reuter’s interview, quoted in Dan Levine, “Judge who Shelved Apple–Motorola Trial Questions Patent System”, *Reuters* (5 July 2012).

25 See Dan Levine, “Judge who Shelved Apple–Motorola Trial Questions Patent System”, *Reuters* (5 July 2012).

It's a constant struggle for survival. ... As in any jungle the animals will use all the means at their disposal, all their teeth and claws that are permitted by the ecosystem.

14 The changing IP marketplace has brought to the fore a complex tension from the interplay among exclusivity, access, competition and remedies. Arguably, the most formidable of all tools is the permanent injunction. The opportunity to extract exorbitant sums in cases involving a multiplicity of patents coupled with poor patent notice or clearance cannot be overlooked. The discretion to grant permanent injunctions need to be carefully exercised to minimise the detriment such activities may have on a well-functioning patent system.

15 This is not beyond our grasp. Various approaches may be adopted by courts and adjudicators. Where significant consumer benefits are at stake, courts may, in meritorious instances, rely on invalidation, revocation, findings of non-infringement and permissible defences under the law. More controversially, perhaps, this author argues that an award of ongoing royalty as an alternative to exclusion may be a better remedy in some cases.

#### **IV. Patent remedies – Injunctions and ongoing royalties**

16 The injunction, particularly the permanent injunction, plays the most critical role in protecting and preserving a patent owner's exclusivity and deterring infringement. It forestalls and removes competition from the marketplace to safeguard the patent owner's market share of a product. It is not surprising that businesses regard patent injunctions as key weapons to drive competitors out of the marketplace.<sup>26</sup> It can be a very formidable tool when used together with other remedies, such as damages, an account of profits, and orders for delivery up and/or destruction of infringing materials. Whilst it is accepted the predictions of some experts<sup>27</sup> that many of the current patent wars are likely to end in settlement and cross-licensing, there is evidence that some owners have shown their readiness (and perhaps even eagerness) to use "patents as weapons against their rivals".<sup>28</sup> It may

---

26 See, for eg, Steven Seidenberg, "A Bigger, Meaner Patent War", *Intellectual Property Watch* (25 June 2012), where the author opined that companies are "happy to use patents offensively against business rivals". He also cited Colleen Chien, Santa Clara University Law School, that companies have become "comfortable with competing in the courtroom rather than just in the marketplace".

27 See, for eg, Steven Seidenberg, "A Bigger, Meaner Patent War", *Intellectual Property Watch* (25 June 2012).

28 See, for eg, the current patent wars raging globally between Apple Inc, Samsung Electronics Co Ltd, Motorola Inc, HTC Corp, etc over smartphones and tablets. See  
(cont'd on the next page)



be timely to examine the role that the patent injunction plays in this evolving IP marketplace.

### A. *Permanent injunction*

17 It has been asserted in some quarters that the fundamental essence of a patent right – its sum total – is “the right to exclude others from making, using, offering for sale, or selling the invention ... It is this right to exclude and not a ‘right to damages’ that defines the essence of a patentee’s rights”.<sup>29</sup> Others proffer that the “essence of all property is the right to exclude”<sup>30</sup> and, upon a finding of infringement, “it is contrary to the laws of property, of which the patent law partakes, to deny the patentee’s right to exclude others from use of his property”.<sup>31</sup> Indeed, it is “the general rule that an injunction will issue when infringement has been adjudged, absent a sound reason for denying it”.<sup>32</sup>

18 Yet, historically, this was probably not the case in either the US or the UK. In the UK, patent infringement actions were originally brought in the common law courts for damages, and injunctions in aid of these rights were only granted by the courts of equity from the mid-18th century on. Similarly, it was not until 1819 that the US Congress conferred equitable jurisdiction in patent cases<sup>33</sup> “using language that remains nearly untouched to this day”.<sup>34</sup> The US Code on patent law provides that injunction may be granted to prevent violations of patent right in accordance with the principles of equity.<sup>35</sup> This remedial structure reflects a careful balance of countervailing interests.

19 Be that as it may, the basis for this “right to exclude” was succinctly stated by Judge Markey (sitting by designation):<sup>36</sup>

---

Steven Seidenberg, “A Bigger, Meaner Patent War”, *Intellectual Property Watch* (25 June 2012).

29 See MercExchange brief, cited in Dennis Crouch, “Review: *EBay v MercExchange Amici Briefs*”, *Patently-O* (13 March 2006) <<http://www.patentlyo.com>> (accessed 21 August 2012).

30 See, Markey CJ, *In re Berwyn E Etter* 756 F 2d 852 at 859 (Fed Cir, 1985).

31 *Richardson v Suzuki Motor Co Ltd* 868 F 2d 1226 at 1246–1247 (Fed Cir, 1989), per Newman J.

32 *Richardson v Suzuki Motor Co Ltd* 868 F 2d 1226 at 1247 (Fed Cir, 1989), per Newman J.

33 See Act of February 15, 1819, ch 19, 3 Stat 481 cited in *eBay Inc v MercExchange LLC* (No 05-130) (25 July 2005) (petition for writ of *certiorari*).

34 *eBay Inc v MercExchange LLC* (No 05-130) (25 July 2005) (petition for writ of *certiorari*) at 5.

35 See Patents 35 USC (US) § 283.

36 See *Panduit Corp v Stahlin Bros Fibre Works Inc* 575 F 2d 1152 at 1158 (6th Cir, 1978).

Patents must by law be given ‘the attributes of personal property’ ... The right to exclude others is the essence of the human right called ‘property’. The right to exclude others from free use of an invention protected by a valid patent does not differ from the right to exclude others from free use of one’s automobile, crops, or other items of personal property. Every human right, including that in an invention, is subject to challenge under appropriate circumstances. That one human property right may be challenged by trespass, another by theft, and another by infringement, does not affect the fundamental indicium of all ‘property’, [that is], the right to exclude others.

20 Proponents of this view often warn that any erosion to patent exclusivity will be detrimental to innovation and ultimately the society at large. This argument is often relied upon to support a default “general rule” to grant injunctions upon a finding of patent infringement. Indeed, the courts in many jurisdictions, such as the US, have long adopted this “general/usual rule” of granting permanent injunctions. A similar approach is adopted in the UK, where a final injunction is “usually granted” to patent owners who prove “at trial that their rights have been infringed by the defendant”.<sup>37</sup>

21 In some cases, the injunction or threat thereof, may lead to an unjustifiable and excessive increase in a patent owner’s bargaining position. However, the weight of this argument is not universal. Some industries, such as biotechnology, pharmaceutical and healthcare, which involve huge and risky outlays in research and resource investments, may have a much stronger claim to rely on injunctions to deter infringement. Still, in industries where multiplicity of patents may be more common, such as the ICT industry, the grant or threat of injunctive relief may exacerbate the problems associated with lock-ins,<sup>38</sup> which may engender high switching costs.<sup>39</sup> This is especially so in cases where the innovators are unable to engage in *ex ante* technology licensing due to deficiencies in obtaining patent clearance. *Ex post* licensing transactions in cases where the patented technology has been integrated into a complex and widely diffused technological device or service may also cause manufacturing hold-ups. The ensuing gridlock

---

37 See Lionel Bently & Brad Sherman, *Intellectual Property Law* (Oxford University Press, 3rd Ed, 2009) at p 1112, citing *Chiron Corp v Organon Teknika Ltd (No 10)* [1995] FSR 325 where, as a general rule, a defendant who interferes with a proprietary right will be enjoined.

38 For *eg*, where the firm accused of patent infringement has become locked into the patented technology due, *inter alia*, to its investments in the development or commercialisation of that technology.

39 For *eg*, the cost of re-designing or inventing around the patented technology so as to avoid patent infringement may, in some cases, be prohibitive or even impractical to achieve.

may permit the patent holder to extract exorbitant hold-up values for the patent.

22 A key challenge here lies in striking an appropriate balance with utilising an injunction to promote innovation by preserving the exclusivity of rightsholders without engendering undesirable hold-ups or over-deterrence that may have “an adverse impact on a competitive economy”.<sup>40</sup> It is argued in this article that in some of these cases, an award of ongoing royalty as an alternative to exclusion may approximate the most promising or optimal solution to this challenge. The US Supreme Court’s recent shift away from the default grant of a permanent injunction in *eBay Inc v MercExchange LLC*<sup>41</sup> (“*eBay*”) may be the most significant indication that courts in that country, at least, should now be prepared to investigate other approaches to final relief in such cases.

(1) *The eBay Inc v MercExchange LLC*<sup>42</sup> approach

23 For about 20 years or so, courts in the US have mandated exceptional circumstances or sound reasons to depart from the “general/usual rule” of granting permanent injunctions upon the finding of patent infringement.<sup>43</sup> Since arguments of public interest or balance of hardship had rarely found favour,<sup>44</sup> the threshold for the presumption that owners are invariably and irreparably harmed appears to have been set too high.

24 Then, in 2006, this presumed immutability of the “right to exclude” was successfully challenged in the US Supreme Court case of *eBay*. In a unanimous decision, the Supreme Court signalled a major policy shift away from the “norm” of granting final injunctive relief in patent infringement cases. The Supreme Court cautioned that any “major departure from the long tradition of equity practice should not be lightly implied” and called for a closer judicial scrutiny in

---

40 See Stevens J (dissenting), *Florida Prepaid Postsecondary Education Expense Board v College Savings Bank* 527 US 627 at 650 (1999), citing *Bonito Boats Inc v Thunder Craft Boats Inc* 489 US 141 at 162–163 (1989), as cited in *eBay Inc v MercExchange LLC* (No 05-130) (25 July 2005) (petition for writ of *certiorari*) at 5.

41 126 S Ct 1837 (2006).

42 126 S Ct 1837 (2006).

43 See, for eg, *MercExchange LLC v eBay Inc* 401 F 3d 1323 (Fed Cir, 2005); *Richardson v Suzuki Motor Corp* 868 F 2d 1226 (Fed Cir, 1989); and *W L Gore & Associates Inc v Garlock Inc* 842 F 2d 1275 (Fed Cir, 1988).

44 See, for eg, *Eli Lilly and Co v Medtronic Inc* 879 F 2d 849 (Fed Cir, 1989), affirmed 496 US 661 (1990); *Rite-Hite Corp v Kelley Co Inc* 56 F 3d 1538 (Fed Cir, 1995); and *Polaroid Corp v Eastman Kodak Co* 228 USPQ (BNA) 305 (DC Massachusetts, 1985). See also Robert Patrick Merges & John Fitzgerald Duffy, *Patent Law and Policy: Cases and Materials* (LexisNexis, 5th Ed, 2011) at pp 949–950.

applications for injunctions based on traditional equitable principles in patent and copyright cases.<sup>45</sup> This has somewhat modified the longstanding expectation that an injunction usually follows a finding of patent infringement. The court held that not only does a patent owner not have an absolute right to a permanent injunction but that the grant of an injunction is an equitable discretion subject to well-established principles of equity based on a four-factor test that a plaintiff must demonstrate, namely that:<sup>46</sup>

- (a) it has suffered an irreparable injury;
- (b) remedies available at law, such as monetary damages, are inadequate to compensate for that injury;
- (c) considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and
- (d) the public interest would not be disserved by a permanent injunction.

25 Subsequent decisions have affirmed the *eBay* case and finally laid to rest the almost automatic entitlement to injunctive relief based on the presumption of irreparable harm upon the finding of infringement.<sup>47</sup> Although a patent owner can “no longer rely on presumptions or other shortcuts to support a request for a permanent injunction”, this approach effectively avoids an abrogation of the all-important “right to exclude”.<sup>48</sup> In any given case, the aim is in finding an appropriate balance between these two competing claims.

---

45 See *Weinberger v Romero-Barcelo* 456 US 305 at 320 (1982), quoted in *eBay Inc v MercExchange LLC* 126 S Ct 1837 (2006).

46 *eBay Inc v MercExchange LLC* 126 S Ct 1837 at 1839 (2006).

47 See, for eg, *Robert Bosch LLC v Pylon Manufacturing Corp* 659 F 3d 1142 at 1149 (Fed Cir, 2011), where the US Federal Circuit stated: “We take this opportunity to put the question to rest and confirm that eBay jettisoned the presumption of irreparable harm as it applies to determining the appropriateness of injunctive relief.” Similar views were expressed in relation to copyright cases; see, for eg, *Perfect 10 Inc v Google Inc* (Case No 10-56316) (9th Cir, 3 August 2011) and *Salinger v Colting* (Case No 09-2878-cv) (2d Cir, 30 April 2010) (slip op). See also Jason Rantanen, “*Bosch v Pylon*: Jettisoning the Presumption of Irreparable Harm in Injunctive Relief”, *Patently-O* (12 October 2011). For a discussion on post-*eBay Inc v MercExchange LLC* 126 S Ct 1837 (2006) cases relating to grant or denial of injunctive relief, see Lawrence M Sung, “In the Wake of Reinvigorated US Supreme Court Activity in Patent Appeals” (2009) 4 J Bus & Tech L 97 and Edward D Manzo, “Injunctions in Patent Cases After *eBay*” (2007) 7 J Marshall Rev Intell Prop L 44.

48 See *Robert Bosch LLC v Pylon Manufacturing Corp* 659 F 3d 1142 at 1149 (Fed Cir, 2011).

(2) *Erosion of “right to exclude” – Criticisms and a response*

(a) Criticisms

26 Some commentators<sup>49</sup> have questioned the correctness of the ruling and cautioned against any erosion of the “right to exclude”. The main thrust of this argument is that the derivative value of a patent lies in the “right to exclude” dealings with the protected subject matter. The grant of this right is justified to promote innovation for the good of society in exchange for the disclosure of the invention. They stress the potential harm that denial of injunctive relief may inflict on inventors and start-up businesses. The basic tenet of their assertion is:<sup>50</sup>

The entire purpose of the patent system is to promote progress, and if the ability to enforce a patent is weakened, the chance of financial reward for development is significantly reduced. With limited likelihood for profit after innovation, less money will be devoted to development, and the entire market will suffer. [If venture capital-funded small start-up companies] cannot gain financial backing, as surely they will not be able to do [so] if their patent rights are significantly reduced; the incentive for innovation and development is again reduced, to the detriment of all ... As a result, inventions, research and development, and start-up businesses that drive the entire innovative system would also suffer, and the damage would affect the entire ... economy.

27 Others have gone further to declare:<sup>51</sup> “[P]atent itself is a right to exclude others from engaging in certain activity ... if there is no right to a permanent injunction then that means there is no right to exclude. A permanent injunction that orders no further infringement does not differ in any appreciable way from the very patent grant itself.” They insist that “remedy of the injunction is the only means to preserve” the

---

49 See, eg, Robert Thomas, “Vanquishing Copyright Pirates and Patent Trolls: The Divergent Evolution of Copyright and Patent Laws” (2006) 43 Am Bus LJ 689–739; Andrew Beckerman-Rodau, “The Supreme Court Engages in Judicial Activism in Interpreting the Patent Law in *eBay v MercExchange LLC*” (2007) 10 Tul J Tech & Intell Prop 165; and Miranda Jones, “Permanent Injunction, a Remedy by Any Other Name is Patently Not the Same: How *eBay v MercExchange* Affects the Patent Right of Non-Practising Entities” (2007) 14 Geo Mason L Rev 1035.

50 Dennis Fernandez & Christopher Fasel, “Is Congress Throwing Out the Patent with the Troll?” *IP Frontline* (3 July 2007). See also David M Young & Scott L Robertson, “Brief in Opposition” [in *eBay Inc v MercExchange LLC* (No 05-130) (25 July 2005)] (26 September 2005) at p 29, where it is argued that “small firms and independent inventors, who already face great difficulty in commercialising their inventions, would be unable to license or sell their inventions to other entities or attract investors because their inventions will have little or no value” without the right to obtain injunctive relief.

51 See Gene Quinn, “Infringer Lobby Seeks to Strip ITC of Patent Powers”, *IP Watchdog* (17 July 2012).

exclusionary right conferred by patents and that monetary damages do not permit the patentee to exercise this exclusionary right; “only an injunction can achieve that goal”, and thus “a right without a remedy is no right at all”.<sup>52</sup>

28 Similarly, some scholars have warned that erosion of the patent owner’s exclusivity may cause inventors to seek protection under trade secrets rather than patents. They argue that any weakening of the patent exclusionary right, which is granted as *quid pro quo* for disclosure of the claimed invention, may decelerate dissemination of scientific knowledge into the public domain.<sup>53</sup>

29 Others possess the unarticulated fear that any erosion of the “right to exclude” in one sector (such as information technology) may result in an extension of the same to other industries (for example, the pharmaceutical and life sciences industries). It has also been pointed out that the lack of guidance on how the *eBay* four-factor test is to be applied also raises concerns on its impact on industries that place a premium on certainty to provide injunctions.<sup>54</sup> This is especially acute in industries that could justify patent exclusivity to recoup its high cost of research and development and generate profits to fund future innovation such as pharmaceuticals.

(b) A response<sup>55</sup>

30 First, the author is mindful that the “right to exclude” is a vital aspect of a patent right that should not be eroded lightly. In many cases, the injunctive relief is likely to continue to remain as a core remedy to prevent the patent owner’s rights from being undermined. It is not denied that any erosion or diminution of the patent holder’s right to exclude should only be considered in compelling cases where the public interest prevails over the private interests of patent holders. Indeed, the

---

52 See *Guaranty Trust Co v York* 326 US 99 at 108 (1945), cited in David M Young & Scott L Robertson, “Brief in Opposition” [in *eBay Inc v MercExchange LLC* (No 05-130) (25 July 2005)] (26 September 2005) at p 9. There have also been calls for caution against endorsing compulsory licensing before “institutions have a chance to emerge to reduce IPR transaction costs”; see Robert P Merges, “Of Property Rules, Coase, and Intellectual Property” (1994) 94 Colum L Rev 2655 at 2668.

53 See, eg, Federal Trade Commission, “The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition” (March 2011) at p 145; Vincent E O’Brien, “Economics and Key Patent Damages Cases” (2000) 9 U Balt Intell Prop LJ 1 at 3; and John Golden, “Principles for Patent Remedies” (2010) 88 Texas L Rev 505.

54 See Federal Trade Commission, “The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition” (March 2011) at p 215.

55 Some of the arguments discussed in this article were proffered in the author’s earlier work; see Elizabeth Siew-Kuan Ng, “Patent Trolling: Innovation at Risk” [2009] EIPR 593 at 596.

decisions of the courts in this regard reveal a policy of restraint, and erosions have only been sanctioned in appropriate or limited circumstances.<sup>56</sup> Mark A Lemley and William H Neukom stated:<sup>57</sup> “The goal of the equity requirement in the injunctive relief sections of the patent law is to ensure that people who actually need injunctive relief to protect their markets or ensure a return on their investment can get it, but that patent owners cannot use the threat of an injunction against a complex product based on one infringing piece to hold up the defendant and extract a greater share of the value of that product than their patent warrants.” Moreover, the *eBay* decision may not signal a sharp change in policy on the grant of injunctive relief, but simply a restoration of a “well-established” four-factor test from the long tradition of equity practice.<sup>58</sup>

31 Second, the author has previously argued<sup>59</sup> that an injunctive relief is but one of many remedies<sup>60</sup> available to the patent owner. Where the circumstances involve a significant public interest, in which an injunction can and should be denied, then the imposition of an involuntary licensing scheme may be a viable alternative to costly and time-consuming litigation.<sup>61</sup> Similar views were expressed recently by

---

56 See, eg, *Innogenetics NV v Abbott Laboratories* 512 F 3d 1363 (Fed Cir, 2008) where the court likened a running royalty to a “compulsory licence” and vacated the district court’s grant of a permanent injunction prohibiting future sales of Abbott Laboratories’ product; *Advanced Cardiovascular Systems Inc v Medtronic Vascular Inc* 579 F Supp 2d 554 at 560–561 (DC Delaware, 2008) where the court recognised the strong public interest in maintaining diversity and competition in the coronary stent market. See also *Finisar Corp v The DirectTV Group Inc* 523 F 3d 1323 (Fed Cir, 2008); and *F Hoffmann-La Roche Ltd v Cipla Ltd* (2008) 148 DLT 598 (High Court of Delhi, India). See also James Packard Love, “Recent Examples of the Use of Compulsory Licenses on Patents”, research note, *Knowledge Ecology International* (6 May 2007).

57 See Mark A Lemley & William H Newkom, “Brief *Amici Curiae* of 52 Intellectual Property Professors in Support of Petitioners” [in *eBay Inc v MercExchange LLC* (No 05-130) (25 July 2005)] at pp 5–6.

58 See, eg, Thomas J, in *eBay Inc v MercExchange LLC* 126 S Ct 1837 at 1839 (2006), who stated the following, citing as example, *Weinberger v Romero-Barcelo* 456 US 305 at 320 (1982): “The decision to grant or deny permanent injunctive relief is an act of equitable discretion ... These familiar principles apply with equal force to disputes arising under the Patent Act ... As [the court] has long recognised ‘a major departure from the long tradition of equity practice should not be lightly implied.’” For a critique of the decision, see Mark P Gergen *et al*, “The Supreme Court’s Accidental Revolution? The Test for Permanent Injunctions” (2012) 112 Colum L Rev 203.

59 See Elizabeth Siew-Kuan Ng, “Patent Trolling: Innovation at Risk” [2009] EIPR 593 at 596.

60 Eg, monetary damages, account of profits, *etc*.

61 The author is aware that US patent law remains “uniformly hostile to compulsory licensing”. See, eg, Mitchell Stockwell, “Implementing *eBay*: New Problems in Guiding Judicial Discretion and Enforcing Patent Rights” (2006) 88 J Pat & Trademark Off Soc’y 747 at 756. See also *Dawson Chemical Co v Rohm and Haas* (cont’d on the next page)

Posner J in *Apple Inc v Motorola Inc* (one of many ongoing smartphone patent wars), where he dismissed Apple's patent lawsuit against Motorola Inc ("Motorola"), saying that in some cases:<sup>62</sup>

... a compulsory licence with ongoing royalty is likely to be a superior remedy ... because of the frequent disproportion between harm to the patentee from infringement and harm to the infringer and to the public from an injunction.

32 Third, the Supreme Court's upholding of a distinction between the "creation of a right" and "remedies for its violations"<sup>63</sup> is instructive and ought to be welcomed. It serves not only as a "first pointer" towards challenging the norm of granting injunctions, but provides the flexibility required to calibrate the most appropriate balance between protection and access in an evolving IP marketplace.

33 One cannot assume that all claims by patent owners for remedies are to be treated alike. Take, for example, the trolling activities of patent owners who engage in activities inimical to the public interest through wilful exploitation and perverse enforcement of patent rights "far beyond their actual value",<sup>64</sup> causing severe disruption to legitimate businesses. In fact, there is a proposal in the US to penalise such undesirable behaviour as it impairs the proper functioning of the patent system.<sup>65</sup> Judge Rader has called for an award of cost and attorney fees against such patent owners.<sup>66</sup>

---

*Co* 448 US 176 at 215 (1980), where Blackmun J stated that "[c]ompulsory licensing is a rarity in our patent system", and at fn 21, he elaborated: "Compulsory licensing of patents often has been proposed, but it has never been enacted on a broad scale."

62 *Eg*, where the patents are governed by fair, reasonable and non-discriminatory principles, or where the patented invention is but a small component of the final product manufactured. For further discussion, see paras 44–47 below. See *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012). Note that an appeal has been filed against Posner J's decision; see AppleInsider Staff, "Apple, Google Appeal Dismissal of *Apple v Motorola* Suit", *Apple Insider* (21 July 2012). For a critique of Posner J's decision, see Richard Epstein, "Richard Posner Gets it Wrong", *Defining Ideas* (31 July 2012).

63 See *eBay Inc v MercExchange LLC* 126 S Ct 1837 at 1842 (2006) where Kennedy J stated that "[b]oth the terms of the Patent Act and the traditional view of injunctive relief accept that the existence of a right to exclude does not dictate the remedy for a violation of that right".

64 See Richard Sine, "The Quiet Revolution", *MoFo Tech* (Spring/Summer 2012) at p 18, citing Judge Rader, Chief Judge of the US Court of Appeals for the Federal Circuit.

65 Other solutions may include unfair competition law. Note, however, J H Reichman, "Of Green Tulips and Legal Kudzu: Repackaging Rights in Subpatentable Innovation" (2000) 53 Vand L Rev 1743 at 1788 where the author stated: "Empirically, unfair competition norms enable courts to adopt temporary measures to alleviate the tensions that arise from gaps in the domestic system of innovation. Over time, however, when legislatures fail to intervene (or when they  
(cont'd on the next page)



34 Currently, attorney fees are only awarded, *inter alia*, in “exceptional cases” in the US. In order to reduce the amount of egregious lawsuits brought by patent trolls, a bill (Saving High-Tech Innovators from Egregious Legal Disputes Act of 2012, or known as the “SHIELD Act”) was recently introduced in the US, which would permit a successful defendant in a computer hardware or software patent infringement case to recover litigation costs, including attorney fees, if the party alleging patent infringement “did not have a reasonable likelihood of succeeding”.<sup>67</sup> The bill seeks to move towards a “loser pays” system for hardware and software patent litigation in cases where the defendant has been “wrongly accused”. Unlike the normal “loser pays” system in civil suits in many jurisdictions, such as the UK<sup>68</sup> and Singapore, this bill only targets patentees who are defeated in litigation.<sup>69</sup> It has been criticised in some quarters as having fundamentally tilted the balance of risks among litigants resulting in a “major assault on patentee (patent holder) rights”.<sup>70</sup>

---

choose to intervene inopportunistically), courts applying these amorphous principles of unfair competition law ... tend to become part of the problem rather than agents of any real solution.” The author further stated that “the failure of general principles of unfair competition law to solve these deep-rooted problems makes it easier for special interest lobbies to convert well-grounded fears of market failure into ill-conceived hybrid exclusive property rights that gradually suffocate competition”.

66 See Richard Sine, “The Quiet Revolution”, *MoFo Tech* (Spring/Summer 2012) at p 18, citing Judge Rader, Chief Judge of the US Court of Appeals for the Federal Circuit, who identified two main groups of litigants, namely, trolls and grasshoppers. The former are those who engage in trolling activities by seeking to enforce patents far beyond its actual value, whilst the latter are those who unreasonably refuse to obtain a licence on reasonable terms based on a strong patent.

67 Section 2 of the Saving High-Tech Innovators from Egregious Legal Disputes Act of 2012 (US) (HR 6245). The bill was introduced by Congressman Peter Defazio on 1 August 2012, the amendment of which pertains to Patents 35 USC (US) § 285. The amendment reads in part as follows:

Sec 285A. Recovery of litigation costs for computer hardware and software patent

(a) In General – Notwithstanding section 285, in an action disputing the validity or alleging the infringement of a computer hardware or software patent, upon making a determination that the party alleging the infringement of the patent did not have a reasonable likelihood of succeeding, the court may award the recovery of full costs to the prevailing party, including reasonable attorney’s fees, other than the United States.

68 Note Jackson LJ’s report on *A Review of Civil Litigation Costs* (January 2010).

69 See Dennis Crouch, “Loser-Pays System Introduced in Congress”, *Patently-O* (9 August 2012).

70 See Ron Katznelson, “Here They Go Again – This Time with the Patent SHIELD Act”, *IP Watchdog* (26 August 2012).

35 Fourth, being an equitable relief, it is subject to the usual judicial discretion depending on the facts of each case.<sup>71</sup> The grant or denial of injunctive relief need not necessarily be an “all or nothing” order to prohibit or permit all infringing activities. Instead, courts have the discretion to grant tailored injunctions that avert significant hardships to the parties, without compromising the public interest. The court may impose terms as it sees fit<sup>72</sup> – it may, for example, be customised in respect of nature, scope, duration and purpose. This may, *inter alia*, allow time for the defendant to “invent around” the patent or negotiate a licence on mutually agreeable terms. Some examples include:

(a) *Duration:*

(i) Limited time injunction – An injunction may be granted that restrains a defendant from infringing the patent for a limited duration rather than the full term of the patent. This will enable the patent holder to preserve head-start and recoup the research and development costs.

(ii) Suspended or delayed injunction – This postpones the time when the injunction would take effect, and offers the defendant an opportunity to dispose of infringing products that have already been manufactured. It may also allow time for the defendant to “invent around” around the infringing patent.

(iii) “Springboard” or “post-expiry” injunction – More controversially, courts in some jurisdictions (such as the UK and the Netherlands) have granted “post-expiry” or “springboard” injunctions that restrain defendants from infringing the patent after its expiry.<sup>73</sup> This imposes a commercial handicap and prevents a defendant from enjoying the fruits of infringing activities that had occurred during the term of the patent. It seeks to put the patent holder in the position

---

71 See, eg, Richard Miller QC *et al*, *Terrell on the Law of Patents* (Sweet & Maxwell, 17th Ed, 2011) at paras 19–20, where the learned authors stated: “Even if the patent is held valid and infringed and there is a clear threat to infringe, the court retains a discretion to refuse an injunction and award damages in lieu.”

72 See s 4(10) of the Civil Law Act (Cap 43, 1999 Rev Ed) (as amended), which provides: “A Mandatory Order or an injunction may be granted or a receiver appointed by an interlocutory order of the court, either unconditionally or upon such terms and conditions as the court thinks just, in all cases in which it appears to the court to be just or convenient that such order should be made.”

73 See, for eg, *Dyson Appliances Ltd v Hoover Ltd (No 2)* [2001] RPC 27, where Judge Fysch QC noted that post-expiry injunctions have been granted in other jurisdictions such as the Netherlands.

it would have been if its rights had been respected.<sup>74</sup> For example, in cases where a defendant has gained a head-start from the infringing acts during the term of the patent.<sup>75</sup>

(b) *Scope*: An injunction may restrain a defendant from infringing the patent in the manufacture of future products but not for existing infringing products. It may also be confined only to some of the infringing activities.

(c) *Purpose*: An injunction may also be limited to the purpose for which it was authorised and can be lifted, if and when the circumstances that led to its grant cease to exist and a recurrence is unlikely.

36 Fifth, there is a legitimate fear that the refusal to grant injunctions on grounds of public interest may become an “unruly horse ... which may lead you from the sound law”.<sup>76</sup> Indeed, it may induce some prospective licensees to “game” the system by taking calculated risks of weighing the risks of detection and costs of enforcement. Alternatively, it may also encourage an “infringe first and pay later” attitude or an “infringer hold-out” if the worst scenario is merely compulsory licensing and payment of reasonable royalty, which would otherwise have been due, or perhaps may not be available at the earlier time because the patentee would never have granted such a licence.

37 The author does not, for a moment, believe that these fears are unwarranted, although experience suggests that they may often be

---

74 See *Generics BV v Smith Kline & French Laboratories Ltd* [1997] ECR I-3929; [1997] RPC 801 at 829, cited in *Dyson Appliances Ltd v Hoover Ltd (No 2)* [2001] RPC 27 at [16].

75 See, for eg, Judge Fysch QC in *Dyson Appliances Ltd v Hoover Ltd (No 2)* [2001] RPC 27. See the submissions of Advocate General Jacobs to the European Court of Justice in *Generics BV v Smith Kline & French Laboratories Ltd* [1997] RPC 801 at 809, cited in Judge Fysch’s judgment of *Dyson Appliances Ltd v Hoover Ltd (No 2)* [2001] RPC 27 at [3]. See also *Tamglass Ltd v Luoyang North Glass Technology Co Ltd* [2006] EWHC 65 (Ch); *Mayne Pharma Pty Ltd v Pharmacia Italia SpA* [2005] EWCA Civ 294; Lionel Bently & Brad Sherman, *Intellectual Property Law* (Oxford University Press, 3rd Ed, 2009) at p 1114; and Chartered Institute of Patent Attorneys, *CIPA Guide to the Patents Act* (Sweet & Maxwell, 7th Ed, 2011) at para 61.21.

76 See, per Burrough J, in a different context relating to illegality on the grounds of public policy in *Richardson v Mellish* (1824) 2 Bing 229 at 252. See also, eg, *Naomi Campbell v Vanessa Frisbee* [2002] EWHC 328 (Ch); [2002] EMLR 31; *Attorney-General v Guardian Newspapers Ltd (No 2)* [Spycatcher case] [1990] AC 109 on public interest in the area of breach of confidence (for an analysis of that decision, see, eg, Ng Siew Kuan, “The Spycatcher Saga: Its Implication and Effect on the Law of Confidence” (1990) 32 Mal LR 1); *Lion Laboratories Ltd v Evans* [1985] QB 526; and *Ashdown v Telegraph* [2001] EWCA Civ 1142; [2002] RPC 5 relating to public interest and copyright.

overly exaggerated. In this respect, the conduct of the alleged infringer in *ex ante* licence negotiation (if any) may be a factor for consideration. A related issue is that reservations about the effectiveness of the *eBay* four-factor test have been expressed.<sup>77</sup> While it may appear to be too amorphous, it is still argued that it would be unwise to impose rigid and prescriptive rules that may shackle the discretion of the judges and adjudicators to formulate the most appropriate remedy in each case. Indeed, in an evolving IP marketplace, it is impossible to foresee all the factors and combinations thereof that may be at play. Being a discretionary remedy, a categorisation or classification of circumstances to determine eligibility for injunctive relief should be avoided. At most, a review of some circumstances where courts have denied injunctive relief may be instructive. A few of these are highlighted for discussion below.

(3) *Some perceived trends on injunctive relief*

38 Where public interest or “harm to the infringer if relief is granted” outweighs the “harm” to the patentee from the denial of injunctive relief, US courts have given more serious consideration to the denial of injunctive relief. These include situations where the patented invention is merely a trivial component (or even a small component) of a final product; the patent holder is an NPE and/or engages in oppressive, vexatious or trolling activities; the patent holder is merely interested in financial returns or has endorsed the patent under a “licence of right” regime; or the patented invention is a standard-essential patent.

(a) Non-practising entities and trolls – Lack of direct competition

39 Kennedy J in the *eBay* case noted the development of an industry in which firms used patents “not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees ... For these firms, an injunction and the potentially serious sanctions arising from its violation can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licences to practise the patent”.<sup>78</sup> In the post-*eBay* US cases, some commentators<sup>79</sup> have observed

---

77 See, eg, Mitchell Stockwell, “Implementing *eBay*: New Problems in Guiding Judicial Discretion and Enforcing Patent Rights” (2006) 88 J Pat & Trademark Off Soc’y 747; and Mark Gergen *et al*, “The Supreme Court’s Accidental Revolution? The Test for Permanent Injunctions” (2012) 112 Colum L Rev 203.

78 See *eBay Inc v MercExchange LLC* 126 S Ct 1837 at 1842 (2006).

79 See, for eg, Edward Manzo, “Injunctions in Patent Cases After *eBay*” (2007) 7 J Marshall Rev Intell Prop L 44; Benjamin Petersen, “Injunctive Relief in the Post-*e-Bay* World” (2008) 23 Berkeley Tech LJ 193; Bernard Chao, “After *eBay Inc v MercExchange*: The Changing Landscape for Patent Remedies” (2008) 9 Minn  
(*cont’d on the next page*)

that a trend appears to be emerging where the US courts seem to place a greater emphasis on whether there is direct competition between the parties or their related companies in deciding whether to grant injunctive relief upon finding of validity and infringement of patent. The absence of competition between the parties and the lack of harm to goodwill and market share appear to be the “usual reason” given in cases where injunctive relief is denied.<sup>80</sup>

40 Whilst the “non-working” of the patented invention or “non-practising status” of the patent owner may sometimes be a relevant consideration, it is still important to ensure that one does not unfairly prejudice those with legitimate interests to protect. There is a need to differentiate the various types of NPEs. As noted above, these may include independent or self-made inventors, universities and similar institutions that may not commercialise their research due to resource limitations or lack of facility to practise and other structural reasons. Such patent holders may nonetheless still be able to satisfy the four-factor test and should not be categorically denied the opportunity to do so.<sup>81</sup> Indeed, for many start-ups and small companies, patents provide an important means to protect them from free riding by established industry players and aid them in attracting investor capital that is needed to build market share.<sup>82</sup>

41 In addition, consideration should also be given to patent holding, licensing and/or enforcement companies that engage in reasonable licensing activities and lack commercial mandate to commercialise some of their inventions. These licensing entities (particularly the smaller ones) may be more susceptible to “infringer hold-out”. This may be due, *inter alia*, to their lack of resources to fund expensive lawsuits, as well as a lowered respect in some quarters, for

---

JL Sci & Tech 543; and Lawrence Sung, “In the Wake of Reinvigorated US Supreme Court Activity in Patent Appeals” (2009) 4 J Bus & Tech L 97.

80 See Edward Manzo, “Injunctions in Patent Cases After *eBay*” (2007) 7 J Marshall Rev Intell Prop L 44 at 68 and Benjamin Petersen, “Injunctive Relief in the Post-*eBay* World” (2008) 23 Berkeley Tech LJ 193. See also, *eg*, *Innogenetics NV v Abbott Laboratories* 512 F 3d 1363 (Fed Cir, 2008); *Finisar Corp v The DirecTV Group Inc* 523 F 3d 1323 (Fed Cir, 2008); and *Paice LLC v Toyota Motor Corp* 504 F 3d 1293 (Fed Cir, 2007).

81 See *eBay Inc v MercExchange LLC* 126 S Ct 1837 (2006), *per* Thomas J. See, for *eg*, *Commonwealth Scientific and Industrial Research Organisation v Buffalo Technology Inc* 492 F Supp 2d 600 (ED Texas, 2007), where a permanent injunction was granted to a non-competing patentee, a research institution. Note that the US Court of Appeals for the Federal Circuit has remanded the case on issues of obviousness.

82 See US Patent and Trademark Office, *International Patent Protection for Small Businesses* (January 2012), report to Congress, cited in Gene Quinn, “Patent Advantage: Laying the Groundwork for International Patent Rights”, *IP Watchdog* (5 March 2012).

their patent rights because some infringers may perceive that there is nothing to fear, except the possibility of a compulsory licence at a reasonable royalty even if the patent owner wins the litigation.<sup>83</sup> Moreover, the adoption of a broad approach in denying injunctive relief to NPEs may also encourage the development of business models in which licensing entities adopt a façade or semblance of purported commercialisation merely to overcome their “non-practising” status. In this regard, it may be prudent to heed the call of the US Supreme Court to reject “expansive principles” supporting the denial of injunctive relief based merely on a “plaintiff’s willingness to license its patents” or “its lack of commercial activity in practising the patents”.<sup>84</sup>

42 Instead, the conduct of the patent holder should be a factor for consideration, for example, where it has an anti-competitive effect or the patent holder is seeking to enforce its patent way beyond its value.<sup>85</sup> This point was also emphasised by Kennedy J who alluded to patent holders who “charge exorbitant fees”. These would include firms that engage in patent-trolling activities, for example, by deliberately refraining from commercialising their patented inventions and lie in wait to ambush the target innovator or business by threatening litigation and extracting excessive settlements beyond the patent value. These patent trolls have discovered new hunting grounds in a complex technological age, and they leverage on the potential harm that an injunction or expensive litigation would bring to extort maximum compensation or hold-up ransom from target users, which are, in many cases, considerably in excess of the patent owner’s economic and technical contribution. The victim of such “patent blocking” is faced with the Hobson’s choice of either paying the ransom or having its business significantly disrupted due to the high economic switching cost.<sup>86</sup> Take, for example, *NTP Inc v Research in Motion Ltd*,<sup>87</sup> the “BlackBerry” case in the US. In that case, NTP Inc (“NTP”), a patent licensing company, sued Research in Motion Ltd (“RIM”) for patent

---

83 See Federal Trade Commission, “The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition” (March 2011) at p 220. See also *Fromson v Western Litho Plate and Supply Co* 853 F 2d 1568 at 1574 (Fed Cir, 1988) cited in Mitchell Stockwell, “Implementing *eBay*: New Problems in Guiding Judicial Discretion and Enforcing Patent Rights” (2006) 88 J Pat & Trademark Off Soc’y 747 at 755.

84 See *eBay Inc v MercExchange LLC* 126 S Ct 1837 at 1840 (2006), *per* Thomas J.

85 See Rader J cited in Richard Sine, “The Quiet Revolution”, *MoFo Tech* (Spring/Summer 2012) at p 18.

86 See, *eg*, *NTP Inc v Research in Motion Ltd* 418 F 3d 1282 (Fed Cir, 2005). See also Associated Press, “Settlement Reached in BlackBerry Patent Case”, *NBC News* (3 March 2006); CBS, “Settlement Ends BlackBerry Patent Suit”, *CBS News* (11 February 2006); and Elizabeth Siew-Kuan Ng, “Patent Trolling: Innovation at Risk” [2009] EIPR 593.

87 *NTP Inc v Research in Motion Ltd* 418 F 3d 1282 (Fed Cir, 2005).

infringement relating to the popular BlackBerry handheld devices and wireless e-mail systems. RIM paid NTP more than US\$600m to settle the case, in order to avoid the risk of a court injunction that could have effectively led to a shutdown of its Blackberry services to a huge segment of businesses.<sup>88</sup>

43 The patent system should not be, nor be seen as, an enabler of such undesirable outcomes. Rather, it is submitted that in circumstances where a non-practising patent owner's activities (for example, flagrant refusal to license on reasonable terms or use the patent) increase the general cost of innovation in an industry (such as causing severe disruption to legitimate businesses and normal and smooth functioning of society) with no countervailing benefit (except the patent holder's private benefit), then the overriding public interest may, in some cases, justify curtailment of the "right to exclude" by denying injunctive relief.

(b) Patented invention was but a small component of the overall product or process

44 In the *eBay* case, Kennedy J also proposed that when the patented invention is "but a small component" of the final product that the company seeks to produce and the threat of an injunction was employed "simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest".<sup>89</sup> Similar views were expressed recently by Posner J when he criticised the suitability of granting injunctions in such cases and opined that "a compulsory licence with ongoing royalty is likely to be a superior remedy".<sup>90</sup>

45 Clearly, in such cases, some flexibility is desirable in determining the grant of injunctive relief to ameliorate the detrimental effects from patent thickets and "hold-ups". This is particularly so in complex innovations involving interconnected, interdisciplinary and convergence of cumulative technologies such as the ICT industry. The fragmentation of ownership and types of IP in a complex end-product, whereby hundreds (if not, thousands) of licences will need to be negotiated, increases the risk of innocent and unintended infringement. Coupled with poor patent notice and sometimes dubious patent quality,

---

88 See *NTP Inc v Research in Motion Ltd* 418 F 3d 1282 (Fed Cir, 2005) discussed in Elizabeth Siew-Kuan Ng, "Patent Trolling: Innovation at Risk" [2009] EIPR 593 at 606.

89 *eBay Inc v MercExchange LLC* 126 S Ct 1837 at 1842 (2006).

90 See *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012). Note that an appeal has been filed against Posner J's decision; see AppleInsider Staff, "Apple, Google Appeal Dismissal of *Apple v Motorola* Suit", *Apple Insider* (21 July 2012).

it is not difficult to envisage potential patent “hold-ups”, which can arise from blocking by one or more patent owners and may impede innovation and be detrimental to the public interest. In such cases, any attempt to “design around” the patent so as to immunise or purge the innovation from potential infringement is likely to be futile.<sup>91</sup>

46 Difficulties may, however, arise in determining whether a patent covers a “small component” of a complex multicomponent product. Due consideration may need to be given, particularly to cases where the defendant’s product cannot be worked without permission from the patent owner because it is cumulative, dependent or complementary to the patented invention. In such cases, a plaintiff’s flagrant refusal to license on reasonable terms may impede and foreclose the efficient production of useful innovation and be detrimental to scientific progress.<sup>92</sup>

(c) Standard-essential patents

47 Standard-essential patents (“SEPs”) are patents deemed essential for compliance with the common standards prescribed by the standards-setting organisations of a particular industry to ensure interoperability and compatibility of products made by different manufacturers. Such patents must be licensed to anyone on fair, reasonable and non-discriminatory (“FRAND”) terms to obviate licensing abuse that may occur from the enhanced advantage that a patent holder derives from having his patent included as part of the industry standard. Indeed, the agreement to license on FRAND terms is a *quid pro quo* for the patents being declared essential to the standard.<sup>93</sup> Take, for example, standards that exist with respect to MP3s, JPEGs, 3G mobile telecommunication technology and so on. The propriety of granting exclusion order in favour of an SEP owner and the potential economic and competitive impact of injunctive relief<sup>94</sup> in such patent

---

91 See also Elizabeth Siew-Kuan Ng, “Patent Trolling: Innovation at Risk” [2009] EIPR 593 at 607.

92 Note also that under Art 31 of the Agreement on Trade-Related Aspects of Intellectual Property Rights, compulsory licences may be available for dependent patents.

93 See *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012), *per Posner J* at 20.

94 See the US International Trade Commission’s statement *Re Certain Wireless Communication Devices, Portable Music and Data Processing Devices, Computers and Components Thereof* (Investigation No 337-TA-745) cited in *Apple Inc v Motorola Inc* (“*Apple v Motorola*”) (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012). Note also Posner J in *Apple v Motorola*, where he stated that parties who have committed to fair, reasonable and non-discriminatory terms have implicitly acknowledged that a royalty is adequate compensation for a licensee to use that patent.



disputes will outweigh the “harm” to the patent owner from its denial. Indeed, the costs imposed on the alleged infringer will be disproportionate “both to the benefits to it of having infringed and to the harm to the victim of the infringement” and would result in a “windfall to the patentee and a form of punitive rather than compensatory damages imposed on the infringer”.<sup>95</sup> In such cases, the author agrees with Posner J that a “compulsory licence with ongoing royalty is likely to be superior remedy”.<sup>96</sup> Several reasons may be proffered for this, including the following:

(a) The threat of a permanent injunction may jeopardise the underlying goals of FRAND commitments; and<sup>97</sup>

(b) High switching costs may generate “lock-in” effects for implementers of a standard covered by the patents, which, when coupled with the threat of injunctive relief, may increase the risk of “ransom” royalty payments that reflect the patent “hold-up” value rather than the value of the patented technology. This is exacerbated in situations where the patent covers a small component of a complex product.

(d) Licences of right

48 In some jurisdictions (such as Singapore and the UK), patent holders may create notifications of licensing opportunities to the public in the “licences of right” registry of the national patent system. One of the incentives for such an endorsement is the halving of the patent renewal fee payable.<sup>98</sup> Patent holders who avail themselves of this facility cede control in the exercise of the patent rights as long as the entry remains posted in the register, and any person would be entitled to apply for a licence as of right under the patent. In such cases, injunctive relief is generally not available as a remedy. Instead, damages (if any) not exceeding twice the amount of the applicable licensing fee shall be awarded.<sup>99</sup>

---

95 See Posner J in *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012).

96 See Posner J in *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012).

97 See Federal Trade Commission, “Third Party United States Federal Trade Commission’s Statement on the Public Interest” (filed on 6 June 2012) in *Re Certain Wireless Communication Devices, Portable Music and Data Processing Devices, Computers and Components Thereof* (Investigation No 337-TA-745), cited in *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012) at 19.

98 See s 53(3)(d) of the Patents Act (Cap 221, 2005 Rev Ed) and s 46(3)(d) of the UK Patents Act 1977 (c 37) (as amended).

99 See s 53(3)(c) of the Patents Act (Cap 221, 2005 Rev Ed) and s 46(3)(c) of the UK Patents Act 1977 (c 37) (as amended).

**B. Ongoing royalties**

49 After *eBay*, the US courts have retreated from the default practice of granting a permanent injunction in all patent infringement cases. Whilst the development is progressive, the challenge is to find an appropriate remedy to deal with cases where an injunction has been denied. Several options may follow, including:

(a) No further relief: In such cases, the parties would be left to their own devices in relation to future infringement. For example, if the defendant continues to infringe the patent, the patent owner may have to institute a successive array or a continuing series of new lawsuits to obtain past damages for each new period of patent infringement.<sup>100</sup> Whilst this approach may have the advantage of providing the court with an opportunity to revisit the earlier decision in which injunctive relief had been denied, the author agrees that it “seems odd to say that the only possible solution is to doom the parties ... to an endless succession of lawsuits presenting the same issue and leading ... to the same conclusion”.<sup>101</sup> Such an outcome would saddle both the courts and litigants with a multiplicity of lawsuits;

(b) Prospective lump sum damages in lieu of injunction: This seeks to compensate the patent owner for anticipated infringement post-judgment by way of lump sum award. For example, it could be based on a discounted estimate of future royalties, based on past usage. Such damages may, of course, be difficult to quantify with reasonable accuracy and involve significant speculation in some cases; and

(c) Ongoing or continuing royalties in lieu of injunction or damages for future infringement: This allows the defendant to continue to use the patented invention upon payment of the ongoing royalty. Such an award minimises speculation and guesswork, which is inherent in a prospective lump sum award. Whilst there is still a degree of prediction involved, nonetheless it more accurately depicts future infringement, based on the actual exploitation of the patented invention by the defendant.

50 It is recognised that conferring courts with the discretion to substitute an injunction for an award of ongoing or prospective royalty

---

100 See Mark Lemley, “The Ongoing Confusion over Ongoing Royalty” (2011) 76 Mo L Rev 695.

101 See Mark Lemley, “The Ongoing Confusion over Ongoing Royalty” (2011) 76 Mo L Rev 695 at 697.

payment may be radical and controversial in some quarters.<sup>102</sup> There are fears that such a move may signal a shift in patent rights from a property regime based on “exclusivity” to a liability regime based on compensation.<sup>103</sup> Nonetheless, it is submitted that an award of ongoing royalty currently approximates the best solution in cases where a final injunction is denied and the adjudged infringement is allowed to continue. An illustration of this can be seen in the hybrid vehicle industry, in which Paice LLC, a non-practising licensing entity, sued Toyota (an early pioneer of hybrid vehicular technology), seeking a permanent injunction to stop sales of its new hybrid vehicles “at a critical time in developing the nascent hybrid market”.<sup>104</sup> Such an action would have jeopardised Toyota’s hybrid programme, which it had developed for more than a decade.<sup>105</sup> The US District Court (upheld on appeal by the US Court of Appeals for the Federal Circuit) declined to issue a permanent injunction, and instead awarded an ongoing royalty for the infringing patents,<sup>106</sup> thereby allowing development of this new technology. A similar approach was adopted recently in the medical device arena where US courts have denied injunctive relief and awarded ongoing royalty on account of public interest to permit competition.<sup>107</sup>

---

102 See, for *eg*, Michael Brandt, “Compulsory Licenses in the Aftermath of *eBay Inc v MercExchange LLC*: The Courts’ Authority to Impose Prospective Compensatory Relief for Patent Infringement” (2008) 17 Fed Circuit BJ 699.

103 See J H Reichman, “Of Green Tulips and Legal Kudzu: Repackaging Rights in Subpatentable Innovation” (2000) 53 Vand L Rev 1743, where the learned author proposed a compensatory liability scheme for sub-patentable innovations. See also Robert P Merges, “Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations” (1996) 84 Cal L Rev 1293 and Guido Calabresi & A Douglas Melamed, “Property Rules, Liability Rules, and Inalienability: One View of the Cathedral” (1972) 85 Harv L Rev 1089.

104 See Toyota Motors, “Combined (1) Opposition to Paice LLC’s Motion for Entry of an injunction and (2) in the alternative motion for a stay of any injunction entered” in *Paice LLC v Toyota Motor Corp* (WL 813673) (EC Texas, 2006), cited in Matthew Rimmer, *Intellectual Property and Climate Change: Inventing Clean Technologies* (Edward Elgar, 2011) at p 208.

105 Toyota Motors, “Combined (1) Opposition to Paice LLC’s Motion for Entry of an injunction and (2) in the alternative motion for a stay of any injunction entered” in *Paice LLC v Toyota Motor Corp* (WL 813673) (EC Texas, 2006), cited in Matthew Rimmer, *Intellectual Property and Climate Change: Inventing Clean Technologies* (Edward Elgar, 2011) at p 208.

106 Interestingly, Paice LLC (“Paice”) filed further patent infringement actions against other Toyota Motor Corp (“Toyota”) vehicle models, as well as a motion with the US International Trade Commission (“ITC”), alleging violations based on importation and sale of certain hybrid vehicles. Similar to the ending in *NTP Inc v Research in Motion Ltd* [Blackberry] 418 F 3d 1282 (Fed Cir, 2005), the Toyota Prius saga was also finally settled out of court, prompted in no small measure by the ITC hearing, which could have jeopardised Toyota’s hybrid vehicle imports. See Susan Decker, “Toyota Settles Infringement Case Over Hybrid Patent”, *Bloomberg News* (19 July 2010).

107 See *Bard Peripheral Vascular Inc v W L Gore* (Case No 2010-1510) (Fed Cir, 10 February 2012) at 37. See also *Edwards Lifesciences AG v CoreValve Inc* (cont’d on the next page)

51 Several issues may need to be addressed, including whether courts have authority to award ongoing royalty and the determination of royalty award.

(1) *Authority to award prospective damages or ongoing royalty*

52 The arguments for and against statutory authority for awarding an ongoing royalty in the US have been discussed elsewhere<sup>108</sup> and will not be repeated here, save to highlight that it is “not free from doubt”.<sup>109</sup> Nevertheless, US courts have generally proceeded on the basis that there is some authority (grounded for instance in equity) to award an ongoing royalty,<sup>110</sup> and in some cases, courts have imposed it *sua sponte* upon the parties. Nonetheless, the US Federal Circuit has suggested that an award of an ongoing royalty should not be made as a matter of course whenever a permanent injunction is denied. Rather, in most cases, an ongoing royalty should only be imposed after the parties have

---

(“*CoreValve I*”) (Case No 08-91-GMS) (DC Delaware, 7 February 2011). Note, however, the decision of the US Court of Appeals for the Federal Circuit in *Edwards Lifesciences AG v CoreValve Inc* 2012 (“*CoreValve II*”) (WL 5476839) (Fed Cir, 13 November 2012) where although the Federal Circuit approved of most of the district court’s ruling in *CoreValve I*, it remanded the case for reconsideration of the district court’s denial of an injunction, in view of the representation of changed circumstances.

108 See, for eg, Paul Janicke, “Implementing the Adequate Remedy at Law for Ongoing Patent Infringement After *eBay v MercExchange*” (2011) 51 IDEA 163, suggesting that courts do not have statutory authority to award ongoing royalties. Cf Mark Lemley, “The Ongoing Confusion over Ongoing Royalty” (2011) 76 Mo L Rev 695, proposing that ongoing royalty awards should be available. Lemley argued that the general powers of the court in equity to impose a constructive trust and equitable accounting of profits may provide further justification for the discretion to award ongoing royalty. He cited (at 699) examples of cases where US courts have ordered a person who was wrongly granted a patent to hold the profits from that patent on constructive trust for the true inventor. See, for eg, *Tronzo v Biomet Inc* 156 F 3d 1154 at 1161 (Fed Cir, 1998) and *Arachnid Inc v Merit Industries Inc* 939 F 2d 1574 at 1578 (Fed Cir, 1991) where the courts approved of constructive trust and equitable accounting under patent law, respectively.

109 See Mark Lemley, “The Ongoing Confusion over Ongoing Royalty” (2011) 76 Mo L Rev 695 at 697.

110 See, for eg, *Paice LLC v Toyota Motor Corp* 504 F 3d 1293 at 1295 (2007), particularly Rader J (conurrence) that the “court would retain jurisdiction to impose a reasonable royalty to remedy the past and ongoing infringement”. See also *Amado v Microsoft Corp* 517 F 3d 1353 (2008); *Shatterproof Glass Corp v Libbey-Owens Ford Co* 758 F 2d 613 (Fed Cir, 1985); and more recently, *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012). Note that an appeal has been filed against Posner J’s decision; see AppleInsider Staff, “Apple, Google Appeal Dismissal of *Apple v Motorola* Suit”, *Apple Insider* (21 July 2012).

failed to agree on a comprehensive voluntary licence incorporating terms that regulate future (post-suit) use of the patented invention.<sup>111</sup>

53 In contrast, the award of an ongoing royalty may perhaps be less controversial in a jurisdiction like Singapore. Under section 67 of the Patents Act,<sup>112</sup> courts may grant “damages in respect of the infringement”. It does not, however, define what constitutes “the infringement”. Whilst some may argue that it refers only to past infringement, it is submitted that there is nothing in the statutory provision to justify such a restrictive interpretation. A compelling ground is necessary to curtail or deprive the court of its inherent jurisdiction to grant damages in all types of infringement claims. Taken together with the powers of the court under the Supreme Court of Judicature Act to grant “all reliefs and remedies at law and in equity, including damages ... in substitution for, an injunction”,<sup>113</sup> it is submitted that the Singapore courts have the discretion to award prospective damages or ongoing royalties.

---

111 See *Paice LLC v Toyota Motor Corp* 504 F 3d 1293 (2007). Note also Rader J (in a concurring judgment) (at 1317) opined that the court should (and not may) allow the parties to negotiate a licence amongst themselves before imposing an ongoing royalty, or “at least secure the permission of both parties before setting the rate itself”. In addition, the learned judge acknowledged (at 1316) that “calling a compulsory licence an ongoing royalty does not make it any less a compulsory licence”. However, by giving the parties a formal opportunity to set the terms of a royalty on their own, “an ongoing royalty would be an ongoing royalty, not a compulsory licence” (at 1316).

112 Cap 221, 2005 Rev Ed (as amended).

113 See the First Sched, para 14 of the Supreme Court of Judicature Act (Cap 322, 2007 Rev Ed). Note also s 4(10) of the Civil Law Act (Cap 43, 1999 Rev Ed) (as amended) provides: “A Mandatory Order or an injunction may be granted or a receiver appointed by an interlocutory order of the court, either unconditionally or upon such terms and conditions as the court thinks just, in all cases in which it appears to the court to be just or convenient that such order should be made.” See also Yeo Tiong Min, “Jurisdiction of the Singapore Courts” in *The Singapore Legal System* (Kevin Y L Tan ed) (Singapore University Press, 2nd Ed, 1999) at p 255, stating that the powers of the courts were expressly expanded to include award of “equitable damages (which the courts of England possessed, by virtue of Lord Cairns Act 1858)”; Tan Yock Lin, “Supreme Court of Judicature (Amendment) Act 1993” [1993] Sing JLS 557 at 571, where the learned author stated that a “few words in the Schedule make all the difference. Damages in substitution for or in addition to specific relief (by way, for instance, of an injunction or specific performance) may be awarded. (Indeed, there is power to grant all relief at law or in equity)”; *Singapore Court Practice 2009* (Jeffrey Pinsler gen ed) (LexisNexis, 2009) at para 1/2/4.

(2) *Determining an appropriate ongoing royalty award – Some challenges*

54 The award of ongoing royalty poses several interesting challenges. Whilst it is beyond the scope of this article to engage in a detailed review of them, a few will be highlighted for consideration.

(a) The appropriate basis and rate for the royalty

55 What should this be? Should it be based on reasonable royalty or some greater amount? Is wilfulness of the infringer a relevant factor? Should the royalty rate for future infringement be the same as past infringement? Should the royalty be based on “dollar per infringing unit” or “percentage per unit” in the case of product patents?

56 One of the controversies surrounding ongoing royalty lies in determining the proper basis for the award. In general, it should be based on a reasonable royalty.<sup>114</sup> Yet, in some jurisdictions such as the US, where the court has discretion to award punitive or enhanced payment for wilful infringement, it may be important to determine whether a defendant’s continued infringement subsequent to a court’s finding of infringement, amounts to knowing or wilful infringement<sup>115</sup> to warrant a higher award.

57 At first glance, logic seems to tilt towards wilful infringement, since the defendant has already been adjudged to have infringed a valid patent, any continuation of the infringing activity must be regarded as wilful. Yet, a court that has denied injunctive relief (for example, on the grounds that the public interest would not be served by its grant or that monetary damages are adequate compensation) is effectively permitting the defendant to continue its infringing acts. In such a case, it seems anomalous to penalise a defendant for doing that which the court has now permitted. In *Amado v Microsoft Corp*<sup>116</sup> (“*Amado*”), the US Court

---

114 See *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012) at 12 where Posner J explained that the difference between damages and royalty is that “often a royalty is a form of restitution – a way of transferring to the patentee the infringer’s profit, or ... the infringer’s cost savings from [practising] the invention without authorisation”.

115 For example, in the US, courts have discretion to award treble damages for wilful patent infringement (see Patents 35 USC (US) § 284). In Singapore, additional damages may be available for copyright infringement, taking into account all the circumstances of the case, particularly the flagrancy of the infringement (see s 119(4) of the Copyright Act (Cap 63, 2006 Rev Ed) (as amended)). Similarly, under s 53(3) of the Patents Act (Cap 221, 2005 Rev Ed), where the patent infringed has been endorsed as “licences of right”, damages payable may be twice the amount of the licensing fee (if the defendant had taken a licence on terms).

116 517 F 3d 1353 (2008).

of Appeals for the Federal Circuit took the view that wilfulness was not an appropriate enquiry where the defendant's infringing activity was permitted by a court-ordered stay of an injunction pending an appeal. Although in the *Amado* case the defendant had been enjoined from further infringement and was permitted to continue further infringing activity only by virtue of a court-ordered stay, it is argued that the same reasoning should apply to cases where a defendant has not been enjoined from further infringement. Indeed, wilfulness *per se* should not be relevant in the assessment of ongoing royalty where the court has already sanctioned the continuation of the infringing activity by denying injunctive relief.

58 However, it is agreed that pre- and post-judgment infringing acts may be distinct. Once a judgment of validity and infringement of patent has been entered by the court, different economic factors may come into play, including the changed circumstances in the parties' legal relationship and bargaining positions, as well as any resulting change in economic circumstances and market conditions arising from the determination of liability for infringement and validity of patent.<sup>117</sup> The author contends that this may warrant (or even compel, in some cases) a different royalty rate for past and future infringement. Although the US Federal Circuit in *Paice LLC v Toyota Motor Corp* did not provide much guidance on how the new royalty rate for prospective infringement should be derived, it permitted district courts to "take additional evidence if necessary to account for any additional economic factors arising out of the imposition of an ongoing royalty".<sup>118</sup>

59 Whilst there may be some justifications for imposing a higher prospective royalty ("going forward") and a lower retrospective royalty ("going backward") based on the final determination by the court, there may be situations where the ongoing royalty may not be "as much as or more than the damages for past infringement".<sup>119</sup> Be that as it may, the discretion to differentiate the royalty pre- and post-judgment would

---

117 See *Amado v Microsoft Corp* 517 F 3d 1353 (2008) (US Court of Appeals for the Federal Circuit); *Paice LLC v Toyota Motor Corp* 504 F 3d 1293 (2007); and *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012). Compare Mark Lemley, "The Ongoing Confusion over Ongoing Royalty" (2011) 76 Mo L Rev 695 at 707, where the learned author concluded that "ongoing royalties for future infringement should be set at the same rate as damages for past infringement".

118 See *Paice LLC v Toyota Motor Corp* 504 F 3d 1293 (2007), cited in George Newcombe, "Prospective Relief for Patent Infringement in a Post-*eBay* World" (2008) 4 NYUJL & Bus 549 at 572–573.

119 See Ronald Schutz, "Uncharted Waters: Determining Ongoing Royalties for Victorious Patent Holders Denied an Injunction" (2010) 11 Sedona Conf J 75 at 83.

provide the much needed flexibility to address earlier concerns of “infringer hold-out” or “patentee hold-up”.

60 It should also be highlighted that the patent laws of some jurisdictions, such as Singapore<sup>120</sup> and the UK,<sup>121</sup> deny the grant of monetary awards (namely, damages or an account of profits) against innocent defendants, namely, those who were not aware and had no reasonable grounds for supposing that the patent existed. In such cases, where a valid patent has been adjudged to have been infringed, the patent holder will not be entitled to any monetary award for infringement that occurred prior to the infringer’s knowledge of the patent’s existence. This “defence of innocence” provides the patent infringer who is ignorant of the existence of the patent with some relief from the full consequences of patent infringement, and ameliorates, to some extent, the problems associated with patent thickets and poor patent notice. It remains open for the courts to differentiate such cases from future infringement (and indeed for past infringement, post-knowledge of patent existence, if any). In the latter, the courts could award damages, order an account of profits or ongoing royalty as proposed in this article. In such cases, the defendant can no longer avail himself of the defence of innocence because he has been tainted with the requisite knowledge requirement.

61 Before leaving this issue, it may be pertinent to highlight briefly problems relating to the appropriate form of royalty to be adopted in relation to product patents, for example, whether based on “dollars/cents per infringing unit” or “percentage per unit” measures. The main attractiveness of the “dollars/cents per infringing unit” model lies in its simplicity and clarity. However, it does not take into account price fluctuation (if any) of the final product over time. A better alternative may be the “percentage per unit” royalty model. Though not perfect – for example, it does not factor in the changes (if any) in the relative value of the patented invention to the defendant’s final product over time<sup>122</sup> – nonetheless, as compared to the “dollar/cents per infringing unit” model, it is less susceptible to price changes over time and currently provides the best predictor available.

---

120 See s 69(1) of the Patents Act (Cap 221, 2005 Rev Ed), which provides: “In proceedings for infringement of a patent, damages shall not be awarded and no order shall be made for an account of profits against a defendant who proves that at the date of the infringement he was not aware, and had no reasonable grounds for supposing, that the patent existed.”

121 See s 62(1) of the Patents Act 1977 (c 37) (UK) (as amended).

122 See Mark Lemley, “The Ongoing Confusion over Ongoing Royalties” (2011) 76 *Mo L Rev* 695 at 701.



- (b) What factors should the courts take into account in computing a reasonable royalty?

62 Whilst the projection of a royalty rate for future acts of infringement will necessarily entail some degree of imprecision, it has to be pointed out that courts do not arbitrarily “pull the royalty out of a hat”.<sup>123</sup> Some judges have suggested that the parties should be required to use best endeavours to agree on the terms for a post-suit utilisation licence fee because it seems sound to assume that the parties are better placed to “arrive at fair and efficient terms”.<sup>124</sup> The court should only step in to assess the reasonable royalty after it is satisfied that the parties have exhausted all opportunities and failed to reach an agreement.<sup>125</sup> Be that as it may, various methods may be suggested, such as the cost of “inventing or designing” around the patent, or the “infringer’s cost savings”<sup>126</sup> from practising the patented invention without authorisation. Consideration may also be given to the formidable list of 15 factors in *Georgia-Pacific Corp v United States Plywood Corp*<sup>127</sup> or its

123 *The Dow Chemical Co v Mee Industries Inc* 341 F 3d 1370 (Fed Cir, 2003) cited in *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012).

124 See Rader J (conurrence) in *Paice LLC v Toyota Motor Corp* 504 F 3d 1293 (2007). See also *Bard Peripheral Vascular Inc v W L Gore* (Case No 2010-1510) (Fed Cir, 10 February 2012).

125 See *Paice LLC v Toyota Motor Corp* 504 F 3d 1293 (2007).

126 See Posner J in *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012) at 12.

127 See *Georgia-Pacific Corp v United States Plywood Corp* (“*Georgia-Pacific*”) 318 F Supp 1116 at 1120 (SDNY, 1970), cited in *Apple Inc v Motorola Inc* (Case No 1:11-cv-08540) (2012 WL 2376664) (ND Illinois, 22 June 2012). The factors are, namely:

1. The royalties received by the patentee for licensing the patent in suit, proving or tending to prove an established royalty;
2. The rates paid by the licensee for use of other comparable patents to the patent in suit.
3. The nature and scope of the licence, as exclusive or non-exclusive; or as restricted or unrestricted in terms of territory or with respect to whom the manufactured product may be sold.
4. The licensor’s established policy and marketing programme to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
5. The commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter.
6. The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or conveyed sales.
7. The duration of the patent and the term of the licence.
8. The established profitability of the product made under the patent; its commercial success; and its current popularity.

(cont’d on the next page)

modified framework<sup>128</sup> that includes consideration of business, licensing and other issues in determining the amount of reasonable royalty for a patent licence. These are, no doubt, important issues that would benefit from further scholarly reviews and court decisions.

## V. Conclusion

63 The recent sagas in the patent wars over smartphones and tablets, as well as patent trolling serve as timely reminders of the vulnerability of the patent system in our competitive technological age.<sup>129</sup> Whilst the reasons for barring access and competition to stimulate innovation remain cogent, yet in some cases protection may impede innovation. Clearly, a satisfactory resolution of conflicting interests would necessitate the adoption of a differentiated approach to avoid the spirit of innovation and risk-taking from being undermined by parties

---

9. The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.

10. The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.

11. The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.

12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.

13. The portion of the realisable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.

14. The opinion testimony of qualified experts.

15. The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee – who desired, as a business proposition, to obtain a licence to manufacture and sell a particular article embodying the patented invention – would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a licence.

For criticisms of the *Georgia-Pacific* framework and suggestions for improvement, see Thomas F Cotter, “Four Principles for Calculating Reasonable Royalties in Patent Infringement Litigation” (2011) 27 Santa Clara Computer & High Tech LJ 725.

128 See Ronald Schutz, “Uncharted Waters: Determining Ongoing Royalties for Victorious Patent Holders Denied an Injunction” (2010) 11 Sedona Conf J 75; and Daniel J Greenhalgh, “Georgia-Pacific to the Rescue: Paice’s Modified *Georgia-Pacific* Analysis for Ongoing Royalty Assessment” (2010) Mich ST L Rev 507.

129 See The Economist, “The Great Patent Battle”, *The Economist* (editorial) (21 October 2010).

seeking to “game” the system by “getting to market first” to extract financial or competitive advantages.<sup>130</sup>

64 In any sound regulatory framework, judges play a central role in balancing the competing public and private interests of all affected parties. As an example of a multi-stakeholder environment, the patent system is no different. Judges have a duty to ensure that the most appropriate trade-off is achieved between granting protection to incentivise innovation and maintaining competitive access to stimulate further innovation.

65 It has been argued in this article that a patent’s “right to exclude” is not immutable. In fact, there are compelling circumstances where the overriding public interest may justify a curtailment of the “power to control” or “right to exclude”. Indeed, the equitable discretion to grant injunctive relief is “well suited to allow courts to adapt to the rapid technological and legal developments in the patent system”.<sup>131</sup> Coupled with the option to substitute injunctive relief with an ongoing royalty, it is submitted that we have a suitable array of remedies to accommodate the different merits of each case.

---

130 See Rory Crump, “Intellectual Property Rights: The Quiet Killer of RIO+20”, *Patexia* (2 July 2012) <<http://www.patexia.com/feed/intellectual-property-rights-the-quiet-killer-of-rio-20-20120702#>> (accessed 31 August 2012).

131 See *eBay Inc v MercExchange LLC* 126 S Ct 1837 (2006), *per* Kennedy J.