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**The Strategic Use of Business Method Patents:
A pilot study of out of court settlements**

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Introduction

A patent is an exclusive right preventing the use or exploitation of an invention by others than the owner of the patent. A patent can be accurately described as a statutory monopoly within the scope and the jurisdiction of its grant. Proprietary positions in electronic commerce are particularly critical because of the low barriers to entry in the digital environment, and the huge potential value buried in reengineering supply chains and direct retailing services.¹

The Internet was initially conceived in a largely non-proprietary environment. During the 1960s and early 70s, software was not thought to satisfy the legal criteria of patentability, and Internet developers liberally borrowed innovative approaches from each other. In 1976, the U.S. Congress enacted a weaker form of protection, classifying software as literary works within copyright “to the extent that they incorporate authorship in the programmer’s expression of original ideas, as distinguished from the ideas themselves” (Rep. No. 1476, 94th Congress, 2nd Session).² This made it illegal to copy and sell unauthorised copies of specific software expressions, thus supporting the rise of Microsoft, but copyright did not prevent competitors offering applications with essentially the same functionality -- as Microsoft memorably achieved with the Windows interface (imitated from Xerox via Apple) and the Internet Explorer (conceived after Netscape’s Navigator web browser).

While the Internet was used chiefly as a communication tool of the academic community, there was little pressure to extend legal protection further. This changed dramatically with the arrival of electronic commerce during the 1990s. Suddenly on-

¹ An early and seminal theoretical contribution is Malone et al (1989), predicting transparent electronic markets in which buyers and sellers can be matched at minimal cost. Empirical studies bearing out the electronic market hypothesis have been surprisingly rare. Joseph P. Bailey’s study on book, CD and software prices in the Internet market (1998) and Kretschmer et al. (2001) on electronic markets in the music industry paint a more complex picture.

² Software protection as literary work under copyright became the global model with TRIPS (Art. 11(1)), the agreement on Trade Related Aspects of Intellectual Property Rights (1994) now administered by the World Trade Organization (WTO). But TRIPS equally requires (Art. 27) that “patents shall be available for any inventions, whether products or processes, in all fields of technology”, keeping the door for software related patents open.

line retailers, such as Amazon.com, and business-to-business electronic markets, such as Covisint (the Internet market place for the automotive industry), were anticipating multimillion dollar turnover from electronic transactions and achieving highly speculative stock market valuations. Where there is value, and a gap in legal protection, there soon will follow corporate demand for the statutory protection of investments. As intellectual property consultants Rivette and Kline put it somewhat paradoxically: “Without patents, the future of your business may be owned by someone else” (2000, p. 2).

In section one, we show that there is a considerable historical tradition in lobbying for the extension of intellectual property protection into perceived commercial gaps, and summarise the rationales for granting such extension, and their legal expression in the requirements for patentability. In section two, we state current law on the patentability of business methods, emphasising differences between U.S. and European approaches. In section three, we review the strategic uses to which such statutory protection can be put, including the various offensive and defensive constellations of patent portfolios in litigation and cross-licensing. In section four, we introduce a new methodology for empirically capturing such strategies: the analysis of out of court settlements for implied information on the strategic reasons for conduction patent litigation. We then apply this methodology in section five to business method litigation conducted since the *State Street Bank* decision of 1998, opening the gates to the systematic patenting of business methods in the U.S. [*State Street Bank & Trust Co. v. Signature Financial Group, Inc.* , 149 F.3d 1368 (Fed. Cir. 1998), *cert. denied*, 119 S.Ct. 851 (1999)]. A lawsuit between Priceline and Microsoft, settled out of court in 2001, is elaborated as a case study. Finally, we discuss our findings with particular reference to patent strategies for electronic commerce.

Patent rationales and legal criteria of patentability

Justifications of the patent system are contentious. Historically, the medieval monopoly of letter patents issued by the Crown had been devised as a mechanism for rewarding feudal loyalty -- Queen Elizabeth I was particularly apt in using the system, for example exclusively awarding the import of sweet wines to Robert Devereux, Earl of Essex. But already early on, letter patents were also used as an incentive for

importing desirable technologies -- Huguenot glass makers for example were enticed to England by the prospect of a letter patent monopoly.³ The tension between “incentive” and “reward” rationales is persisting in today’s intellectual property system. Berkeley academic Robert Merges disdainfully suggests that intellectual property rights “are extended on the basis of an incomplete theory, often a rhetorically charged version of a primitive labor theory, but rarely with empirical information” (1995, p. 110). However, there is a certain amount of academic consensus that any system of intellectual property regulation ought to benefit society as a whole. In economics, this is termed the “general welfare” approach (Landes & Posner 1987; 1989; Besen & Raskind 1991), while legal academics tend to be more comfortable with the terminology of the “public interest” (MacQueen 1995; Boyle 1996).

As Granstrand (1999, p. 83) argues: “For a society that wants to stimulate the generation and diffusion of technical innovations, a patent system is one way”. The incentive character of limited monopolies may operate on three levels:

1. For individual inventors and firms, increased R&D expenditures may lead to superior returns (if monopoly rents can be charged for protected products and processes), thus incentivising innovative efforts.
2. In granting clear property rights, technologies can be bought and sold in the market place, thus facilitating technological diffusion over secrecy.
3. In requiring the disclosure of protected technologies in searchable files, patenting increases directly the amount of publicly available technological information.

The first patent laws explicitly recognising the benefits of innovation emerged as a product of medieval urbanism. In 1474 the Venetian Senate passed a statute the preamble to which includes: “Now, if provisions were made for the works and devices discovered by such persons, so that others who may see them could not build them and take the inventor’s honour away, more men would then apply their genius,

³ A good study of the origins of the patent system is Long (1991). For a detailed account of the evolution of intellectual property law, see Sherman & Bently (1999). For the integration of intellectual

would discover, and would build devices of great utility and benefit to our Commonwealth.”⁴

The English system of Crown privileges became the object of judicial disquiet and parliamentary criticism during the late Elizabethan period. In a famous speech in November 1601, Elizabeth I managed to ally concerns over the corrupt royal habit of granting trade monopolies, but in 1610 her successor James I was forced to revoke all previous patents and declare that ‘monopolies are contrary to our laws’ and ‘we expressly command that no suitor presume to move us’. An exception to this ban was ‘for projects of new invention so they be not contrary to the law, nor mischievous to the State by raising prices of commodities at home or hurt of trade’, re-casting patents as tools of innovation.⁵ The English Statute of Monopolies in 1624 was passed to regulate this new position, limiting the duration of patents for new manufacture to a period of 14 years. During the mid-18th century, a heated public debate was conducted in Britain surrounding a copyright court case, in which London publishers argued for perpetual “natural” property rights under common law. The House of Lords decision in *Donaldson v Beckett* [2 *Brown’s Prerogative Cases* 129, 4 *Burr.* 2408] rejected that argument in favour of an approach limiting copyright in term.⁶ In 1787 the Constitutional Convention of the United States enshrined an incentive rationale for intellectual property into the Constitution, granting Congress the power to “promote the progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries” (*Art. I*, 8, 8).

During the reign of Queen Anne (1702-14) the law officers of the English Crown established as a condition of grant that “the patentee must by an instrument in writing describe and ascertain the nature of the invention and the manner in which it is to be performed”. The first inventor required to submit a “patent specification” was James Puckle in 1718 for a machine gun. Litigation on Watt’s 1796 patent for steam

property norms into the global trade system, see Braithwaite & Drahos (2000) and Drahos & Braithwaite (forthcoming).

⁴ 21 Jac.1 c.3 (Frumkin 1945; 1947-49; 1947-48).

⁵ Quotations taken from *History of Patents: Tudors and Stuarts*, UK Patent Office (available on www.patent.gov.uk/patent/history/fivehundred/tudors.htm -- visited 10/12/01)

⁶ *Donaldson v. Beckett* was decided by a simple vote in the House of Lords; no authoritative reasoning was given. Mark Rose comments: “Thus the peers gave an answer to the literary-property question, but they did not provide a rationale.” (Rose 1993, p. 103)

engines demonstrated that valid patents could be granted for improvements to known inventions.

With novelty, or “new invention” as a key criterion for patentability, the success of a state patent system relies on assurance that novelty in any granted patent has been established with a fair degree of certainty. This in turn demands a heavy investment in Patent Office personnel able to conduct the necessary searches of prior art in the relevant area of technology. Once novelty is established, the patent must be able to show that it represents an inventive step (*UK Patent Act 1977, section 3*) -- i.e. that the invention is non-obvious (*US Patent Act 1952, 35 U.S.C. Sect. 103(a)*). This is normally the most difficult and important issue to be resolved when deciding whether or not the patent is valid. So much so that inventive step was considered “as fugitive, impalpable, wayward and vague a phantom as exists in the whole paraphernalia of legal concepts” [*Harries v. Air King* 183 F 2d 158, 162 (1950) (Judge Learned Hand)]⁷. National systems based on examinations of patents on criteria of utility, novelty and non-obviousness, and public disclosure of the invention were shaped during the 19th century, culminating in the Paris Convention for the Protection of Industrial Property signed in 1883 which is still in force today.⁸

Patenting business methods: U.S. and European law

In the U.S., lawyers have argued that the statutory basis of non-obviousness may be used to examine business method patent applications under the traditional framework (Laurie & Beyers 1999). A U.S. patent examiner may reject a patent application on grounds of obviousness having considered first:

1. the scope and content of the prior art
2. the differences between the prior art and the claimed invention and
3. the level of ordinary skill in the art.

There follows a number of secondary considerations, which include aspects of commercial success or failure; and thirdly the “motivation to combine”:

1. the nature of the problem to be solved

⁷ quoted in Bradley & Sherman (2000, p. 439).

2. the teachings of the prior art, and
3. the knowledge of persons of ordinary skill in the art [*In re Rouffet* 14 F.3d 1350 (Fed.Cir. 1998)]⁹

A corresponding examination of “obviousness” in respect of European patent applications for business method under the European Patent Convention (EPC) would not be appropriate, because the application would fall at the first and most important hurdle for patentability -- establishing that there is “an invention”. European Patent Office Examiner guidelines spell out (Part C, Chapter IV Patentability. Ss 2.1, 2.2) that whilst the EPC does *not* define what is meant by “invention” Art. 52(2) contains a non-exhaustive list of things which shall not be regarded as inventions, being either abstract or non-technical.¹⁰ In considering whether the subject-matter of an application is an invention within the meaning of Art. 52(1) there are two general points the examiner must bear in mind. First, any exclusion from patentability under Art. 52(2) applies only to the extent to which the application relates to the excluded subject-matter *as such*.¹¹ Secondly, the examiner should disregard the form or kind of claim and concentrate on its content in order to identify whether the claimed subject-matter, considered as a whole, has a technical character. If it does not, there is no invention within the meaning of Art. 52(1).

The legal meaning of “patentability” cannot be discerned solely from close study of Patent Office examiners’ application of domestic and international patent legislation. A more finely tuned, and reliable, definition comes about from the judicial decisions in disputes between would be, or erstwhile, collaborators. When an approach to collaborate in the exploitation of patented technology is rebuffed, or negotiations turn sour, the aggrieved party may seek revocation of the patent in question. In the ensuing court battle, learned legal minds explore whether the Patent Office’s decision should be upheld, or exposed as an examination error.

⁸ TRIPS (the intellectual property agreement of the WTO) incorporates Articles 1-12 of the 1967 revision of the Paris Convention, but increases substantive standards of protection beyond Paris, for example as regards limits on compulsory licences.

⁹ cited by Laurie & Beyers, *op.cit.* pp. 4, 23.

¹⁰ The list includes claims for non-technical matter (aesthetic creations) and abstract matters, such as discoveries and scientific theories, methods for performing mental acts or doing business and programs for computer.

¹¹ For example, a computer program not *as such* but as part of an invention using a computer program is not excluded from patentability (*Vicom/Computer-related invention* [1987] 1 OJEP 14 (T208/84) and Guidelines for Examination in the European Patent Office (June 2000), Chapter IV 2.2.

All business method patents involve computer technology, but not all computer technology patents claim business methods. In September 2000, the Technical Board of Appeal of the European Patent Office refused an appeal (T 0931/95 – 3.5.1), by Pension Benefit Systems Partnership, against a decision in 1995 not to grant a European patent in respect of a method of controlling a pension benefits program (European Patent application No. 88 302 239.4). For an invention to be an invention within Art .52 (1) of the EPC, technical character is an implicit requirement. As a result, methods involving only economic concepts and practices of doing business cannot be inventions. The Appeal Board considered whether the method, according to claim 1 of the patent applied for, represented a method of doing business *as such*. If the method were technical, or had a technical character, it might have succeeded. The Pension Benefit appeal failed because “their business method did not produce a technical effect”. The Appeal Board’s judgement states: the invention *as claimed* does not go beyond a method of doing business as such, and therefore is excluded from patentability.¹²

In July, 1998, as a result of soured licence negotiations between State Street Bank and Signature Financial Group Inc, it was Signature’s business method technology patent (U.S. Patent No. 5, 193, 056, hereafter referred to as the ‘056 patent) that was challenged in the U.S. courts. In that key case, the patentability of a business method was subjected to detailed examination and debate [*State Street Bank & Trust Co. v. Signature Financial Group, Inc.* , 149 F.3d 1368 (Fed. Cir. 1998), *cert. denied*, 119 S.Ct. 851 (1999)]. The U.S. Patent Act (35 US 112, para 6) requires that where each component of a claim is recited as “means” + function, that will include “equivalents”. So the court was able to construe claim 1 of the ‘056 patent as “a machine, namely a data processing system for managing a financial services configuration of a portfolio established as a partnership..” as proper statutory subject matter.¹³ Inclusion of “any” in the Act, and “machine” in both the Act and claim 1 of the patent were sufficient for the court to uphold patent ‘056. The court’s decision

¹² This insistence on “technical effect”, in the absence of any clarification of what is meant by the phrase, has been noted by critics of the European position “preferring ambiguity to allow some business method patents to issue while having a political shield” (Greg Aharonian, PATnews electronic newsletter 02 November 2001, available at www.bustpatents.com).

¹³ 35 US 101.reads: “whoever invents or discovers *any* new and useful process, *machine*, manufacture or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor...” (emphasis added by the authors). This has been held to mean “anything under the sun that is made by man” [*Diamond v Chakrabarty* 206 USPQ 193, 197 (1980)].

confirmed the patentability of business methods so long as they produce a “useful, concrete and tangible result”.¹⁴

As a result of the *State Street Bank* case, the eligibility of a business method to be granted a patent at least in the United States had been confirmed. In 2000, Congress passed the Business Method Patent Improvements Act, reducing the varying interpretations by defining business methods as “any computer-assisted implementation of a method of administering, managing or operating an enterprise, including a technique used in conducting business”

(www.house.gov/boucher/docs/bmpiasummary.htm -- visited 04.12.01).

In summary, the chief difference between European and U.S. approaches lies in the European Patent Convention’s requirement for inventions to be of technical character, whereas in the U.S. the mere fact that the invention uses a computer or software makes it of the technological arts, if also useful, concrete and tangible results are provided (Likhovski et al. 2000; Blind et al. 2001).

Patent Strategies

The rationale for granting intellectual property protection is one thing, what firms and individuals do with the rights granted is quite another. It is to be expected that rationale and strategic behaviour do not fully match in law, or diverge over time to the point of requiring further regulatory intervention. The management literature on strategic uses of law is limited, one exception being a sociological study on the use of litigation in the airline industry (Hinthorne, 1996). In the field of intellectual property, conceptualising patent strategies may fruitfully start from a taxonomy of the advantages to a company or individual inventor conveyed by a patent. According to Granstrand (1999, p. 78), “a patent in general offers a means for the following”:

1. Protecting proprietary product technology.
2. Protecting proprietary process technology.
3. Creating retaliatory power against competitors.
4. Creating better possibilities of selling licences.
5. Giving better possibilities of accessing technology through cross-licensing.

¹⁴ *State Street Bank* *ibid.* at 1373

6. Facilitating R&D cooperation with others.
7. Giving a better bargaining position in standard-setting.
8. Providing motivation for employees to invent.
9. Providing a measure of R&D productivity.
10. Improving the corporate image.

Each of these advantages could become the object of strategic corporate intent. Often, corporate uses of patents have been sub-grouped into defensive and offensive advantages (Thumm, 2000) where “defensive” are strategies more obviously compatible with the patent rationale of incentivising R&D effort and technological dissemination. Offensive strategies, by contrast, may specifically block competitors and slow the proliferation of new technologies, causing net public losses from the patent system. Rahn (1983, p. 489) gives a list of “secondary” functions of patents: (i) attack; (ii) hedge; (iii) motivation; (iv) reputation; (v) credit. In anticipation of such advantages, patents can also be used strategically in raising finance, and in gathering business intelligence on competitors from technological and citation information filed in the data bases of the national Patent Offices (Rivette & Kline, 2000). The following table summarises the potential strategic uses of patents:

Summary: patent strategies
(1) Protection - defensive (protect exclusivity) - offensive: encircling competitors, threaten litigation, litigate
(2) Intelligence - citation trees
(3) Finance - signal to venture capital, stock market
(4) Alliances, M&A - bargaining chip, cross-licensing, standard setting

The ambiguous legal status of business method patent, combined with their wide scope, make the strategic use of law particularly critical to the e-commerce activities

of many businesses. The following section assesses methods for capturing strategic intent in patenting and litigating business methods.

Methods

Strategy researchers are familiar with the challenge of extracting commercially sensitive information from competing firms. The patent system appears to open a methodological door through detailed filing requirements for technological information which is being placed in the public domain in searchable databases. Application counts and trees of technological citations can be subject to quantitative analysis, often as indicators of innovative activity (Pavitt 1985). Yet, as Peter Drahos argues (2001, p. 108): “Although the grant of patent is public information, the uses to which that patent is put is private information.” Thus researchers into the strategic uses of patents mainly rely on questionnaire surveys into managerial perceptions and behaviour, and qualitative semi-structured interview techniques. Recent examples include Macdonald’s survey of UK SMEs access to information and SMEs’ perceptions of the patent system (1997); Granstrand’s benchmark study of the patenting behaviour of Japanese and Swedish R&D intensive firms (1999); Tang, Adams and Paré’s European survey of SME software firms attitudes towards the patenting of software (Tang et al. 2000; Tang & Paré 2002?); Thumm’s study on the management of intellectual property rights in European biotechnology firms (2001) and a Internet based survey of software developers by Fraunhofer Institute Systemtechnik und Innovationsforschung with the Munich Max-Planck-Institute for intellectual property on patenting business methods (Blind et al. 2001).

These traditional methodological techniques can produce very detailed and significant results. Granstrand, for example, succeeds admirably in lifting the veil off technology based filing strategies such as:

- ad hoc blocking
- strategic patent searching
- blanketing/flooding
- fencing (to protect a particular R&D direction)
- surrounding (often to prolong grip on technology after expiration)
- portfolio/network patenting (Granstrand 1999, 219-222).

In our pilot study on the strategic uses of business method patents, we explore a new methodological technique focusing on patent litigation. The proposed methodology has two distinct advantages over survey and interview analyses. (1) The research should allow to penetrate quickly actual strategic behaviour beyond managerial perceptions; (2) The research can be conducted comparatively cheaply from data already in the public domain.

Initially, we envisaged the study to proceed in five steps.

1. Identify filed and granted business method patents in a specific territory from a patent office database.
2. Access the full patent applications from a patent office database.
3. Run a keyword search on each patent through a business information database, identifying patents litigated over.
4. Access all publicly available information on the litigation proceedings, including press releases, industry insider reports (e.g. e-newsletters), court documents and law reports.
5. Reconstruct the reasons why the parties litigated, mapping such reasons on the taxonomy of patent strategies compiled in section four above.

In order to keep the sample manageable, we decided to start from the more restrictive examination practices of the European Patent Office (explained in section three above), anticipating a much lower number of applications and granted patents than in the United States. According to numbers cited by Q. Todd Dickinson (Undersecretary of Commerce and Director of the U.S. Patent Office) 2600 applications for business method related patents were filed in the fiscal year 1999, while 583 were issued.¹⁵ Our search on esp@cenet, the database of the European Patent Office (EPO) including patents published since 15 July 1998, yielded only thirteen hits with the terms “European patents business methods”, none of which were actually granted. Assuming that applicants streamlined their terminology to suit the “technical effect” criterion of the European Patent Convention, a wider search would use keywords such as “commerce”, “electronic”, “interactive” “payment” or “brokerage”. Likhovski et al.

(2000) have shown that business method related applications to the EPO were in the region of 50 for 1996, 70 for 1997 and around 100 each for 1998 and 1999. No litigation appears to have been conducted in Europe on the five business method related patents issued before 31 July 2000.

Faced with the problem of having too large a sample in the U.S. and too small a sample in Europe, we decided to reverse the methodology, starting with step three: directly accessing business method patent litigation via a business information database. We assumed that at least for all listed companies, statements to the stock exchange about litigation over strategic patents would have been issued. These statement would have been reported in the financial press. Thus any reliable database providing access to full text versions of the Financial Times or the Wall Street Journal should identify a relevant sample of litigation activities. We undertook a key word search on *business.com*, a business information directory including information from Pearson (FT Group) and Dow Jones sources. Casting a net that would catch litigation settled before full trial, we searched with the terms “‘business method’ patent lawsuit settled”, producing 147 hits, of which about 40 appeared to identify genuine settlements (as opposed to articles including the search terms for other reasons).¹⁶ We then returned to steps one and two, seeking out full published details of the litigated patents from the Delphion database.

For the purposes of a pilot study proofing the viability of a methodology, we decided not to systematically research public information on all identified patents at this stage. This will be the subject of a full scale follow-up study. Instead, we attempted to identify quickly a litigation case where public information was significant, promising a fuller reconstruction of strategic intent by the litigating parties. An initial list of candidates included Amazon v Barnes & Noble (“1-Click shopping”); Media Inc v Doubleclick; Ticketmaster v Priceline; Coolsavings v Planet U and Open Market v Intershop. We opted for the litigation conducted between Priceline and Microsoft -- a suit filed in October 1999 in the U.S. District Court in Hartford, Conn., settled out of court in September 2001. Reasons include that the litigation also covered a secondary law suit between Priceline and Marketel over the ownership of the claimed invention, Priceline’s file for an share re-offering in December 1999 (to

¹⁵ This amounts to less than 1% of total US applications filed; the allowance ratio application to issue was about 57% (compared to 67% for all US patent applications). US figures summarized in Likhovski et al. 2000, p.11.

which the litigated patent was critical), and a conflict between a start-up firm building a business on business method patents and one of the most powerful player in the industry, Microsoft. In conjunction with the theories reviewed in section four, the case should allow the formulation of hypotheses that will be testable from the full sample.

Priceline v Microsoft

Connecticut based Internet entrepreneur Jay Walker founded Walker Digital in 1994 as a think tank with the mission “to reinvent and improve businesses through the creative application of new digital technologies” (www.walkerdigital.com; visited 26.11.01). Walker Digital is an unusual company in that its products are proprietary ideas, while its staff consists equally of technology researcher, business analysts and patent attorneys. In August 1999, it held 18 U.S. patents with 250 more pending; in November 2001, the count had risen to 70 issued U.S. patents with a further 400 applications filed. At the height of the dotcom boom in 1999, Jay Walker and his “idea factory” was hailed as a *New Age Edison* (Forbes magazine, May 1999).

Priceline.com was Walker Digital’s first spin off company, launched immediately after United States Patent 5,794,207 [the ‘207 or “name your own price” patent] was granted on 11 August 1998 for “a method and apparatus for a cryptographically assisted commercial network system designed to facilitate buyer-driven conditional purchase offers”. The patent was issued in the wake of the 1998 State Street decision (see section three above) and is critical to Priceline’s Internet business operating a reverse auction model in which the purchaser specifies a price for a product in form of a binding offer, and any seller can choose to meet these terms. The full Abstract of the ‘207 patent reads:

The present invention is a method and apparatus for effectuating bilateral buyer-driven commerce. The present invention allows prospective buyers of goods and services to communicate a binding purchase offer globally to potential sellers, for sellers conveniently to search for relevant buyer purchase offers, and for sellers potentially to bind a buyer to a contract based on the buyer’s purchase offer. In a preferred embodiment, the apparatus of the present invention includes a controller which receives binding purchase offers from prospective buyers. The controller makes purchase offers available globally to potential sellers. Potential sellers then have the option to accept a purchase offer and thus bind the corresponding buyer to a contract. The

¹⁶ Search conducted on 07.11.2001.

method and apparatus of the present invention have applications on the Internet as well as conventional communication systems such as voice telephony.

Priceline launched with \$20 million in private financing from venture capital firm General Atlantic Partners. A successful initial public offering (IPO) followed in March 1999, capitalising Priceline with \$115 million in common stock on the NASDAQ stock exchange. One of the most popular early applications of the “name your own price” model was for plane tickets on a specific day between two cities and hotel bookings (September 1998). Expedia, a travel website operating as a unit of Microsoft since October 1996, had designs on a similar service. According to a New York Times report, Expedia added a Flight Price Matcher and Hotel Price Matcher feature in autumn 1999 when it realised that customers were looking up fares on Expedia in order to name a lower price on Priceline (E-Commerce News, 10 December 1999; www.internetnews.com/ec-news/article/0,,4_257761,00.html -- visited 26.11.01).

With a share re-offering pending, Priceline “had little choice but to sue, since to have done otherwise would have welcomed more competitors” (Shulman 2000). But there were strong doubts about the validity of the ‘207 patent on two grounds. First, the patent’s claims were very broad, covering not only Internet commerce but also “one seller - multiple buyer” transactions conducted via voice mail or fax. In this respect the model is very similar to traditional tender techniques by which governments or corporations advertise specifications to multiple contractors (Andrew Whinston, University of Texas, quoted in New York Times, 10 August 1998: “Web Concern Gets Patent for Electronic Business Model). ‘207 may fail the non-obviousness test analysed by Laurie & Beyers (2001; see section three above). Secondly, there already was an ownership dispute over the ‘207 patent involving a suit filed by California company Marketel in January 1999 over confidential information passed between Marketel and Jay Walker in 1988 regarding a fax based airline ticket reservation system.

In response, Priceline.com released a detailed press release on 13 October 1999 in which it justifies the decision to sue Microsoft for patent infringements. The press release provides important insights into the strategic behaviour of both parties. Here is an extended extract:

In addition to charging willful infringement of U.S. Patent #5,794,207, priceline.com's complaint explains how, over an eight month period, Microsoft sought - and was provided with - detailed confidential information and technical data regarding priceline.com. Over that period, during which nondisclosure agreements were entered into, the two companies sought to structure a mutually beneficial business relationship, including possible joint marketing programs and licensing of priceline.com's intellectual property. In a series of meetings, all apparently for legitimate business purposes, Microsoft executives asked for, and priceline.com's senior management and technical staff provided them with, a variety of confidential information.

The meetings between priceline.com and Microsoft included a face-to-face discussion between priceline.com founder and Vice Chairman Jay Walker and Microsoft Chief Financial Officer Greg Maffei, who is currently chairman of Expedia Inc. That discussion, which covered a potential Microsoft investment in priceline.com immediately prior to priceline.com's March 1999 IPO, ultimately broke off when priceline.com would not provide Microsoft with prices on its shares below the initial public offering price.

Meetings continued, in what priceline.com thought was good-faith, as the two parties explored a number of mutually beneficial ways to work together. In the summer of 1999, the question of business partnerships was also part of a face-to-face discussion between Mr. Walker and Microsoft Chairman Bill Gates. During that conversation, Mr. Gates surprised Mr. Walker by informing him that Microsoft had no intention of allowing patent rights to stand in its way. Mr. Gates went on to say that many other companies were suing Microsoft for patent infringement and that priceline.com could, in effect, get in line. A few weeks following the discussion between Mr. Gates and Mr. Walker, Microsoft launched Expedia's Hotel Price Matcher service, which directly infringes priceline.com's '207 patent.

"Patents are the legal safeguard that companies utilize when they create new processes, systems and services," said Evan R. Chesler, Esq., head of the litigation department of Cravath, Swaine & Moore and lead attorney for priceline.com in its suit. "Patents encourage innovation and investment by preventing companies from simply copying the intellectual property of others, thereby unfairly benefiting from their investment and innovation. The patent system, which has benefited American consumers for over 200 years, was created to prevent what happened here. The law provides a clear and powerful means to correct this type of unfair competition.

"Microsoft's conduct is especially egregious in light of the fact that it led priceline.com to believe that it wanted to develop a cooperative relationship between the two companies. Microsoft did not tell priceline.com that its intention was to copy priceline.com's business and infringe its patent rights. Rather, Microsoft indicated that it was seriously exploring a co-marketing arrangement or assisting priceline.com in technical aspects of its computer system. Even after Mr. Gates told Mr. Walker that Microsoft would not let priceline.com's intellectual property rights stand in its way, it was hard to believe that Microsoft would really act in that manner. Then, of course, its copycat hotel service was launched," Chesler continued.

"Priceline.com invested years of time and money to develop a successful business model and build a patent portfolio around it," said Richard S. Braddock, priceline.com's chairman and CEO. "The company raised over

\$100,000,000 of private capital to introduce its novel system to the marketplace and expand its business. Millions of consumers have benefited from priceline.com's innovation and investment."

"Unfair competitive practices and disregard for intellectual property have no place in corporate America," added Braddock. "When Microsoft first announced its Hotel Price Matcher copycat service we were, quite frankly, stunned by its blatant disregard for our prior relationship and our property rights. We believe that Microsoft was well aware of our success as priceline.com's innovation and investment generated tremendous consumer response. In our first year of operation, priceline.com built the second most-recognized e-commerce brand on the Internet, with an overall awareness for our travel products six times greater than Expedia (108.6 million adults for priceline.com vs. 17.8 million adults for Expedia.com) despite the fact that Expedia.com had been in the market twice as long as us. Priceline.com's success in saving money for millions of consumers using a unique business approach has validated our innovative method of pricing."

"During the second quarter of 1999, following our IPO, priceline.com's business began to scale rapidly. We experienced our first \$100 million-plus revenue quarter, passed the 2,000,000 customer mark, and had leisure airline ticket sales that grew more than 1,000% over the same quarter in 1998," Braddock continued, "Notably, in the face of this success, it was during the summer of 1999 when Mr. Walker and Mr. Gates had their conversation regarding priceline.com's intellectual property rights. Shortly thereafter, Microsoft's copycat hotel service was launched."

Chesler concluded, "It is ironic that Microsoft has taken these actions in light of the fact that much of Microsoft's business is premised on its ability to protect its own intellectual property rights, through copyrights, patents and other means. Microsoft is a large and successful company, but no one -- not even Microsoft -- is above the law. Microsoft has no right simply to take and use the intellectual property of others. Priceline.com will assert its rights forcefully in court."

A development in favour of Priceline occurred in October 2000 when the judge in the separate suit brought by Marketel ruled that any non-disclosure agreements signed between the parties a decade earlier were null and void by the time Priceline was founded in 1998 (The Recorder 8 December 2000; <http://www.law.com/> -- visited 11.12.01). Still, the settlement announced between Microsoft and Priceline came as a surprise. The joint statement released on 9 January 2001 is notably terse on both the terms of the settlement, and any reasons for the agreement. Expedia will continue offering its Price Matcher service under a royalty arrangement believed to be "in the best interest of our companies".

Patent lawyers often remark that the only valid patents are those tested in court. Settled out of court, '207 has not passed this test. Yet by co-opting the unlimited litigation chest of Microsoft, Priceline has sent a powerful signal about the strength of

its legal position. In the concluding discussion, we explore the strategic reason both parties may have had for entering into the agreement.

Discussion

The first point to note from Priceline's explanatory press release of October 1999 is the emphasis on the traditional non-strategic conception of patenting as a protection of innovation and investment for the public good, ultimately benefiting "the American consumer": "Patents encourage innovation and investment by preventing companies from simply copying the intellectual property of others". This argument fits squarely with the strategy (1) identified in section four: protecting exclusivity of a new technology to enable return on investments in R&D. The press release is designed to reassure the public and investors that the '207 patent is neither outlandish nor malicious but governed by well established rules. According to industry sources (Gimein 2000, p. 6) Jay Walker "takes care not to portray himself as a litigant in waiting". He claims not to be interested in pursuing "accidental" infringements but to generate revenues from licensing patented methods to other electronic commerce companies. A closer look reveals, however, that neither Priceline nor Microsoft stick to defensive strategies.

The offensive use of patents in intimidating and delaying competitors is evident in aspects of the behaviour of both parties. Patent validity lawsuits can take two to three years to decide whether a patent should be revoked. Greg Aharonian, whose company bustpatents.com makes a living from destroying unsound patents from prior art searches, comments drastically: "If you can delay potential competitors just long enough to assure your first or second entrant position, then it doesn't really matter if your patent is crap or not" (Wired, 15 October 1999; available on <http://wired.com> -- visited 11.12.01). Microsoft, confident of its legal firepower, launched Expedia's copycat service at a time when Priceline was vulnerable in trying to raise further capital from the stock market. Priceline's shares immediately fell on the news (E-Commerce News, 8 September 1999; www.internetnews.com/ec-news/article/0,,4_197561,00.html -- visited 26.11.01). We surmise that Microsoft assumed that Priceline would cave in and license its model under favourable conditions while conceding some corporate control over it, as is evident from Microsoft's earlier attempts to take a minority stake in Priceline at a discounted price

(see Priceline press release).¹⁷ But equally, Priceline's financial backing was credible enough to stand up to Microsoft. Had litigation gone through to conclusion, Microsoft may have been liable for damages in the region \$3 -\$4 billion.

As to strategy (2), using the patent system as an information resource, we found no evidence that such a strategy was relevant to Priceline's or Microsoft's behaviour. In fact, it may be a feature of business method patents that they are fully disclosed in their application. Once Priceline was launched, the essential features of a reverse auction model were immediately available to the public at large.

Strategy (3), exploiting the signal value of granted patents towards venture capitalists or the stock market, is evident in Priceline's immediate success in capitalising its '207 patent after its grant in August 1998.

The most subtle strategic lessons, however, may be drawn interpreting the settlement from the perspective of inter-firm relations (strategy 4). The law suit strengthened the '207 patent, ring fencing the technology to the two firms party to the agreement. Potential new entrants to the market will find it hard to attack a patent that survived Microsoft's challenge. It is difficult to prove this point conclusively in the absence of the terms of settlement. However, we would expect that Microsoft will not simply pay a royalty for using the "name your price" model, but benefit in some further (undisclosed) way from future exploitation, either from future royalty agreement with third parties, or through veto powers over the grant and terms of such licenses. The use of patents in shaping a market is highly policy relevant. Analysing settlements out of court may provide a viable method of enquiry.

We conclude this article with four hypotheses:

The commercial value of a patent does not depend on its validity but its strategic use, including its delaying power and inter-firm credibility.

¹⁷ Microsoft has made similar moves with companies such as Intertrust (digital rights management) or WebTV (interactive digital television). Further details can be gleaned from the anti-trust lawsuit against Microsoft filed May 18, 1998 by Justice Department, State Attorneys General and the District of Columbia.

Where the patent community lacks a consensus as to the patentability of a particular technology, firms are more likely to settle out of court than to expose vulnerable patents to final court rulings.

Since the field of electronic commerce is characterised by both great strategic value to proprietary positions and legal uncertainty with regard to those positions, out of court settlement and licensing activities will prevail over full trials.

Once settled out of court, a patent is unlikely to be litigated again.

Legislating for intellectual property appears politically convenient because someone else (the user) pays the costs in the form of higher prices. The propositions advanced in this pilot may support this perception, and invite examination by a fuller study. We have not even begun to understand the public policy implications of an economy characterised by cross-licensing.

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