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# BUSINESS METHOD PATENTS CHALLENGE THE PURPOSE AND INTENT OF THE PATENT SYSTEM

by MARGO E.K. REDER\*

“The Congress shall have 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....”  
United States Constitution, art. 1, section 1.

## INTRODUCTION

In ways that could not have been predicted even a few years ago, the patent system is in crisis. A series of unplanned mutations have transformed patents into a positive threat to the digital economy. The patent office has grown entangled in philosophical confusion of its own making; it has become a ferocious generator of litigation; and many technologists believe that it has begun to choke the very innovation it was meant to nourish.<sup>1</sup>

This paper examines the sources and purpose of patent law, the history of software patents, and how such patents challenge the purpose and intent of the patent system. This is due to a number of phenomena, including for example, the grant of patent rights for ideas that were clearly obvious (consider whether online payments for goods could have been anticipated, thus non-patentable due to obviousness), to the present business environment demand of interoperability (making it

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<sup>1</sup> See James Gleik, *Patently Absurd*, available at <http://www.around.com/patent.html> (last visited Mar. 15, 2006).

necessary to cross-license with competitors). The explosion of communications technologies and the concomitant patenting of these, have created a perverse scenario whereby the patenting system has impeded innovation, in contravention of the purpose of the patenting system. This paper explores the challenges this presents, as well as recommends modifications to the present system.

## I. HISTORY OF PATENT LAW

Created in 1790 by the First Congress, the U.S. patent system is intended to promote progress and innovation, by way of offering an incentive for inventors to create and innovate—and also act as a barrier to theft. The Framers considered patenting of crucial importance to the fledgling economy. Patents represent both a positive right in the form of a grant of an exclusive property right in an invention, including the rights to make use, license, or sell the invention during the patent term<sup>2</sup>—and a negative right, in the form of the power to exclude others from using the invention, or even its equivalent.<sup>3</sup>

The United States Patent and Trademark Office (PTO), an agency within the Department of Commerce, is charged with enforcing patent laws, and overseeing all patent matters, including the prosecution of patent applications, award of patent rights, and review of patent interference proceedings.<sup>4</sup> The PTO formulates patent policy and patent decisions.<sup>5</sup>

With regard to policy, the patent term length is designed to balance competing demands of inventor protection, with public access. Thus, the term of protection granted is meant to maximize the return on investment, and simultaneously, not be so overly long as to act as an oppressive, monopolistic barrier to creating new products/wealth, or a concentrator of economic power.<sup>6</sup> That then, is the trick: to strike a balance between the interests of those who innovate – the inventors, and

<sup>2</sup> 35 U.S.C. section 101 (2005), available at [http://www.law.cornell.edu/uscode/html/uscode35/usc\\_sec\\_35\\_00000101----000-.html](http://www.law.cornell.edu/uscode/html/uscode35/usc_sec_35_00000101----000-.html) (last visited Mar. 6, 2006).

<sup>3</sup> 35 U.S.C. sections 271-297 (2005), available at [http://www.law.cornell.edu/uscode/html/uscode35/usc\\_sup\\_01\\_35\\_10\\_III.html](http://www.law.cornell.edu/uscode/html/uscode35/usc_sup_01_35_10_III.html) (last visited Mar. 6, 2006).

<sup>4</sup> Patent laws passed by Congress are found at 35 U.S.C. et seq., and patent enforcement matters are found on the PTO website, available at: <http://www.uspto.gov/main/profiles/patty.htm> (last visited Mar. 6, 2006).

<sup>5</sup> *Id.*

<sup>6</sup> See John F. Duffy, *Rethinking the Prospect Theory of Patents*, 71 U. CHI. L. REV. 439, 493-94 & n.156 (2004); William D. Nordhaus, *Invention, Growth, and Welfare: A Theoretical Treatment of Technological Change* 76 (MIT 1969) 76 (1969); William Slate, *The Sky Is Not Falling: The Effects of Term Adjustment under the American Inventors Protection Act on Patent Prosecution*, 4 YALE J. L. & TECH. 7 (2001).

the interests of those who would benefit from innovation—the public.<sup>7</sup> The balance is—or should be—an economic one.

The PTO, concurrently with the courts, regulates patent matters. The PTO considers whether to grant patent rights to inventors, construes the validity of patents, as well as challenges to patents and so forth.<sup>8</sup> The Court of Appeals for the Federal Circuit considers appeals to claims alleging infringement of patents, as well as challenges to validity and inventorship.<sup>9</sup> Litigation among parties may proceed concurrently at the Patent Office and in court. In fact, this was true for the recent case, *NTP, Inc. v. Research in Motion, Ltd.* (RIM).<sup>10</sup> For example, on February 1, 2006, the PTO issued a preliminary ruling rejecting all claims of an NTP patent—the same patent that NTP was relying upon in its patent infringement case against Research in Motion’s BlackBerry wireless email function.<sup>11</sup> And on February 24, 2006, during the pendency of the PTO proceedings, federal district Judge James Spencer held a hearing to consider an injunction that would force RIM to stop infringing NTP’s mobile-messaging patents.<sup>12</sup> Judge Spencer was thus ‘set to act against a company for violating patents that patent officials are signaling shouldn’t have been granted.’<sup>13</sup> (The case recently settled, and so we won’t be able to draw any further conclusions on the interplay between the concurrent and parallel decisionmaking processes at the PTO and in the courts.<sup>14</sup>)

<sup>7</sup> See Remarks by Chairman Alan Greenspan, *Intellectual Property Rights*, at 3, Feb. 27, 2004, available at <http://www.federalreserve.gov/BoardDocs/speeches/2004/200402272/default.htm> (last visited Mar. 6, 2006).

<sup>8</sup> See the website for the PTO, available at <http://www.uspto.gov/> (last visited Mar. 6, 2006).

<sup>9</sup> The federal district courts still have original jurisdiction in patent litigation, but appeals are sent to this specialized court, whose site is available at <http://www.fedcir.gov/> (last visited Mar. 6, 2006).

<sup>10</sup> *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282 (Fed. Cir. 2005) (vacating infringement judgment against RIM, and remanding case to district court for reconsideration of jury verdict). The Supreme Court denied certiorari in this case. *NTP, Inc. v. Research in Motion, Ltd.*, 2006 U.S. LEXIS 1053 (Jan. 23, 2006). The case finally settled on March 3, 2006). See *infra* note 13.

<sup>11</sup> See Ian Austen, *Ruling Aids Manufacturer of BlackBerry*, N.Y. TIMES, Feb. 2, 2006, at C4.

<sup>12</sup> See Carmen Nobel, *Judge Sets Date for BlackBerry Hearing*, eWeek.com, Jan. 25, 2006, available at <http://www.eweek.com/article2/0,1895,1915511,00.asp> (last visited June 28, 2006).

<sup>13</sup> See Anne Marie Squeo and Mark Heinzl, *Broader Conflict Continues as NTP Seeks to Pursue Shutdown Through Court*, WALL ST. J., Feb. 2, 2006, at A2.

<sup>14</sup> See *Research In Motion and NTP Sign Definitive Settlement Agreement to End Litigation*, available at [http://www.rim.com/news/press/2006/pr-03\\_03\\_2006-01.shtml](http://www.rim.com/news/press/2006/pr-03_03_2006-01.shtml) (last visited Mar. 6, 2006).

## II. HISTORY OF BUSINESS METHOD PATENTS

Business method patents are not entirely a product of the information age. In fact, financial apparatus and method patents date back to 1799 when the Patent Office granted a patent for an invention of a process that detects counterfeit notes.<sup>15</sup> On January 8, 1889, the era of automated financial/management business data processing method patents was born. United States patents 395,781; 395,782; and 395,783 were granted to inventor-entrepreneur Herman Hollerith on that date. Mr. Hollerith's method and apparatus patents automated the tabulating and compiling of statistical information for businesses and enterprises. They were acclaimed nationally and viewed as revolutionizing business data processing. The protection of his patents allowed his fledgling Tabulating Machine Company to succeed and thrive. In 1924, Thomas J. Watson, Sr. changed the company name to International Business Machine Corporation.<sup>16</sup>

*Judicial Decisions Construing Business Method Patents:*

Courts, as does the PTO, construe the patentability of software and business methods. In an early case, *Rubber-Tip Pencil Co. v. Howard*, the Court cautioned that 'an idea of itself is not patentable.'<sup>17</sup> Later, the Court in *Mackay Co. v. Radio Corp.* noted that, 'while a scientific truth, or the mathematical expression of it, is not a patentable invention, a novel and useful structure created with the aid of knowledge or scientific truth may be.'<sup>18</sup> The first judicial decision to consider the patentability of computer program-related inventions is the *In re Prater* case, in which the court reversed the PTO's decision, and found the computer program to be statutory subject matter.<sup>19</sup> In 1972, the Supreme Court in *Gottschalk v. Benson* considered for the first time a process in the form of a mathematical algorithm (a formula which underlies so many of the current business method patent claims).<sup>20</sup> In *Gottschalk*, the claim was for a method of programming a general purpose digital computer to convert signals from binary-coded decimal form (*i.e.*, data expressed as digits using the 10 symbols, 0 through 9), into pure binary form (*i.e.*, data expressed as just 0s and/or 1s).<sup>21</sup> The procedure for executing this

<sup>15</sup> See USPTO White Paper, *Automated Financial or Management Data Processing Methods* (Business Methods) (2000), available at <http://www.uspto.gov/web/menu/busmethp/> (last visited Mar. 6, 2006).

<sup>16</sup> *Id.*

<sup>17</sup> 87 U.S. (20 Wall) 498, 507 (1874).

<sup>18</sup> 306 U.S. 86, 94.

<sup>19</sup> 415 F.2d 1393 (C.C.P.A. 1969).

<sup>20</sup> 409 U.S. 63 (1972) (granting certiorari to the U.S. Court of Custom and Patent Appeals).

<sup>21</sup> *Id.* at 66-67.

data conversion is accomplished through creating an equation known as an algorithm. From this generic formulation, programs may be developed as to specific applications. The pattern of decisions continued, whereby the PTO initially rejected patent applications for these claims, and the United States Court of Customs and Patent Appeals reversed those cases.<sup>22</sup> The Supreme Court ultimately agreed with the PTO however, ruling that Respondent's program was not statutory subject matter because the 'mathematical formula involved here has no substantial practical application....and in practical effects would be a patent on the algorithm itself.'<sup>23</sup> Justice Douglas presciently wrote about the patentability of such processes, observing that:

It may be that the patent laws should be extended to cover these programs, a policy matter to which we are not competent to speak. The President's Commission on the Patent System rejected the proposal that these programs be patentable....If these programs are to be patentable, considerable problems are raised which only committees of Congress can manage, for broad powers of investigation are needed, including hearing...the technological problems tendered in the many briefs before us indicate to us that considered action by the Congress is needed.<sup>24</sup>

During this time, as the courts signaled their willingness to consider business methods as statutory subject matter, the PTO continued to maintain its position that business methods cannot be statutory subject matter, and rejected applications for inventions utilizing computer-generated results. The PTO's position was that statutory subject matter extended only to processes, machines, articles of manufacture, and compositions of matter. Then in 1981, the Supreme Court granted certiorari in *Diamond v. Diehr* to consider whether a process for curing synthetic rubber was patentable, notwithstanding the use of a software program.<sup>25</sup> The patent examiner rejected the claims 'on the sole ground that they were drawn to non-statutory subject matter' because computations for curing rubber are 'carried out by a computer under control of a stored program, and thus constituted non-statutory subject matter under this Court's decision in *Gottschalk*.'<sup>26</sup> In a 5-4 decision, the Court rejected the PTO's view, and ordered the Office to grant a patent to the inventors despite the fact that it was for a software program.<sup>27</sup> The Court distinguished this decision from its earlier decision in

<sup>22</sup> *Id.* at 64.

<sup>23</sup> *Id.* at 71-72.

<sup>24</sup> *Id.* at 72-73.

<sup>25</sup> 450 U.S. 175 (1981).

<sup>26</sup> *Id.* at 179-80.

<sup>27</sup> *Id.* at 192-94.

*Gottschalk*, where the inventors were attempting to patent a mathematical formula with no practical application. The *Diamond* Court reasoned that the inventors' 'claims describe a practical application of a mathematical formula: the 'claim containing a mathematical formula implements or applies that formula in a structure or process which, when considered as a whole, is performing a function which the patent laws were designed to protect.'<sup>28</sup> The PTO, as well as inventors, now puzzled over determining when an invention was merely a mathematical algorithm, and when it was in fact a patentable invention that simply contained a mathematical algorithm.<sup>29</sup>

In 1998, *business methods in the form of software programs* were definitively recognized as statutory subject matter. In *State Street Bank and Trust Co. v. Signature Financial Group, Inc.*, the court concluded that the transformation of data by a machine through a series of mathematical calculations constitutes a practical application of a mathematical algorithm because it produces a useful, concrete and tangible result.<sup>30</sup> *State Street* made clear that software programs for business methods were statutory subject matter, and this led to an explosion in patent filings (as well as in litigation) for business methods.<sup>31</sup> The ascendancy of the internet as the pre-eminent communications medium for data, audio and video continues to fuel the demand for business method patents.

### *The Current Business Environment*

We've witnessed a remarkable shift recently, from patents for tangible goods—to patents for intangible, conceptual goods—today, ideas are the raw material of economic progress. Ideas are at the core of value creation.<sup>32</sup> Ideas are the day's preeminent resources. This represents quite a noteworthy change over 200 years, when historically our patent system primarily addressed tangible, physical products and processes. Our economy was formerly primarily agrarian, and we derived our gross domestic product by creating value from physical goods and raw materials. Today, it's all about intellectual property.

In this transition from patents for tangible goods, to an era of granting patents for conceptual/intangible goods, a number of collateral developments have exacerbated tensions regarding these software

<sup>28</sup> *Id.* at 192.

<sup>29</sup> See <http://www.bitlaw.com/software-patent/history.html> (last visited Mar. 6, 2006).

<sup>30</sup> 149 F.3d 1368 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999). See also *AT&T Corp. v. Excel Comm'ns, Inc.*, 172 F.3d 1352, *cert. denied*, 528 U.S. 946 (1999) (concluding that an algorithm transforming data in a call messaging recording program was statutory subject matter).

<sup>31</sup> See <http://www.uspto.gov/go/taf/reports.htm> (last visited Mar. 6, 2006).

<sup>32</sup> See *supra* note 6 and accompanying text.

business method patents, in general. Further still, because of this convergence of data, audio and video, we're witnessing the coalescence of information technology (IT) and telecommunications (telecom). And IT and telecom companies succeed only if there exists 'network effects,' meaning that a system's usefulness is directly correlated to the number of users—so that the best systems are those with the most users.<sup>33</sup> Therefore, interoperability, compatibility, and common standards are essential—yet at the same time, each of these qualities is at odds with the proprietary nature of patents.

As an example, Qualcomm's CDMA (Code Division Multiple Access) technology underlies the third-generation (3G) mobile-telephone standard. Qualcomm created this technology, which is therefore integrated into all 3G wireless networks. This means that all companies wishing to use this technology must work with Qualcomm. And 3G equipment makers must negotiate a license with Qualcomm. This is a quite different from the era of patents for goods made by one business, and sold by that one business. Today's goods that are in demand are composed of technologies from many different businesses.<sup>34</sup>

Because of these consumer demands and marketplace realities, companies are increasingly willing to accept innovations of others, rather than creating their own vertically-integrated inventions. These pressures of interoperability, compatibility and common standards militate against completely proprietary inventions, and instead require a pooling of licenses or cross-licensing agreements. It quickly becomes evident how entangled patent claims have become, since companies are so enmeshed with the technology of others due to these factors. Finally, another phenomenon is the rise of opportunistic patent-holding companies (such as NTP)—companies that do not exploit the underlying patent technology in order to create products or wealth. Rather, they exist as licensing entities, to charge others for using the technology. Pejoratively known as patent trolls,<sup>35</sup> the practice further erects barriers to technology by exacting a toll on users. Patents have become another business strategy, an asset to be used as a competitive and defensive strategy, rather than purely a reward for innovation.<sup>36</sup> This is another

<sup>33</sup> See Survey of Patents and Technology, *A Market for Ideas*, ECONOMIST, Oct. 22, 2005, at 4.

<sup>34</sup> 3G technology includes wireless email, web, digital picture taking/sending, assisted-GPS position location applications, video and audio streaming and TV broadcasting.

<sup>35</sup> See [http://en.wikipedia.org/wiki/Patent\\_troll](http://en.wikipedia.org/wiki/Patent_troll) (last visited Mar. 6, 2006).

<sup>36</sup> See Tom Krazit, *For NTP, is there life after RIM?*, available at [http://www.nytimes.com/cnet/CNET\\_2100-1047\\_3-6046573.html](http://www.nytimes.com/cnet/CNET_2100-1047_3-6046573.html) (last visited Mar. 7, 2006) (noting how NTP is a one-person operation – founded by a former PTO employee – and it has no products and its only business model has been to invoke patent rights).

factor in which patents are now perceived as creating a significant source 'of legal and business uncertainty.'<sup>37</sup>

Within this litigious environment over software patents, and of legal and economic uncertainty, here is a representative sampling of pending litigation regarding software patents on business methods:

*Mercexchange, LLC v. eBay, Inc.*<sup>38</sup> ('buy it now' software used in eBay's site)—401 F.3d 1323 (Fed. Cir. 2005), *cert. granted*, 73 U.S.L.W. 3733 (U.S. Nov. 28, 2005) (No. 05-130). (Supreme Court Oral Argument date: Mar. 29, 2006);

*NTP, Inc. v. Research in Motion*<sup>39</sup> (wireless email technology used in RIMs Blackberry devices) (The Supreme Court denied certiorari in this case, and the parties eventually settled the lawsuit, with RIM agreeing to pay NTP over \$600 million based on the patent infringement claim—despite steps taken by the PTO towards revoking these patents...);

*Eolas Technologies v. Microsoft*<sup>40</sup> (software code used in Microsoft's IE browser);

*Visto Corp. (partly owned by NTP) v. Research in Motion, Microsoft Corp., and Good Technology, Inc.*<sup>41</sup> (wireless technology used in Microsoft's Mobile 5.0);

*Freedom Wireless v. Boston Communications Group, Inc.*<sup>42</sup> (technology used in pre-paid cellular plans);

*Creative Technologies v. Apple Computer*<sup>43</sup> (software covering the way users navigate iPod music selections);

*Rates Technology v. Google*<sup>44</sup> (software Google uses for its gtalk service);

<sup>37</sup> See *supra* note 6 and accompanying text.

<sup>38</sup> See Alorie Gilbert, *Supreme Court: We'll review eBay's patent case*, CNET News, Nov. 28, 2005, available at [http://news.com.com/Supreme+Court+Well+review+eBays+patent+case/2100-1028\\_3-5973511.html](http://news.com.com/Supreme+Court+Well+review+eBays+patent+case/2100-1028_3-5973511.html) (last visited June 12, 2006).

<sup>39</sup> See Joseph Rosenbloom, *BlackBerry Blues*, Law.com, Sept. 15, 2005, available at <http://www.law.com/jsp/article.jsp?id=1126688711482> (last visited June 12, 2006).

<sup>40</sup> See James Evans, *Microsoft, Eolas in court over patent dispute*, InfoWorld.com, Oct. 25, 2000, available at [http://www.infoworld.com/articles/hn/xml/00/10/25/001025\\_hnpatentdispute.html](http://www.infoworld.com/articles/hn/xml/00/10/25/001025_hnpatentdispute.html) (last visited June 12, 2006).

<sup>41</sup> See Tony Dennis, *Visto sues RIM, Microsoft, Good*, The Inquirer.net, May 2, 2006, available at <http://www.theinquirer.net/default.aspx?article=31387> (last visited June 12, 2006).

<sup>42</sup> See William M. Bulkeley, *Patent litigants pose growing threat to business*, post-gazette.com, Sept. 14, 2005, available at <http://www.post-gazette.com/pg/05257/571396.stm> (last visited June 12, 2006).

<sup>43</sup> See Ina Fried, *Creative sues Apple over iPod Interface*, CNET News.com, May 15, 2006, available at [http://news.com.com/Creative+sues+Apple+over+iPod+interface/2100-1047\\_3-6072488.html](http://news.com.com/Creative+sues+Apple+over+iPod+interface/2100-1047_3-6072488.html) (last visited June 12, 2006).

<sup>44</sup> See Elizabeth Montalbano, *Patent Firm Rates Technology suing Google over Talk*, InfoWorld.com, Dec. 20, 2005, available at [http://www.infoworld.com/article/05/12/30/HNpatentgoogletalk\\_1.html](http://www.infoworld.com/article/05/12/30/HNpatentgoogletalk_1.html) (last visited June 12, 2006).

*Hewlett-Packard Co. v. Gateway, Inc.*<sup>45</sup> (patents covering keyboard features, and power management in Gateway notebook computers); and *Gateway, Inc. v. Hewlett-Packard Co.* (Gateway responded with its own patent infringement suit, alleging HP violated a number of Gateway patents).<sup>46</sup>

Moreover, if one reads through corporate filings literature, it is almost the exception to find a company *not* involved in some sort of litigation over software patents, a material business risk necessitating mention in the filings.<sup>47</sup>

*Strategies to Mitigate Uncertainty in the Business Environment over Software Business Method Patents*

The interconnectedness of businesses through their hardware and software programs undermines the proprietary nature of patents of these same businesses. So as businesses amass these private patent rights on business methods, and simultaneously assert patents rights over infringers, thereby impeding innovation and raising costs, there is a definite need to improve the patent system. By way of example, 'Microsoft is among the companies most frequently sued for patent infringement: it is currently involved in 35 patent disputes, and spends close to \$100m a year in legal costs.'<sup>48</sup> Patent rights, which are privately-owned, have clearly trumped the goal of promoting progress. This has created an inefficient market for the transfer of technology, and instead promotes an unstable, uncertain business environment.

Former Federal Reserve Board Chair Alan Greenspan spoke on this point in 2004 and raised these insightful questions:

If our objective is to maximize progress (and Mr. Greenspan evaluates progress by measuring economic growth) he asked, 'are we striking the right balance in our protection of intellectual property rights? Are the protections sufficiently broad to encourage innovation but not so broad as to shut down follow-on innovation? Are such protections so vague

<sup>45</sup> See John G. Spooner, *Gateway-HP patent tussle continues*, ZDNet.com, July 6, 2004, available at [http://news.zdnet.com/2100-9584\\_22-5258776.html](http://news.zdnet.com/2100-9584_22-5258776.html) (last visited June 12, 2006).

<sup>46</sup> This litigation just concluded in March when parties settled, with Gateway agreeing to pay HP \$94 million. See <http://www.hp.com/hpinfo/newsroom/press/2006/060301b.html> (last visited Mar. 6, 2006).

<sup>47</sup> See *supra* note 33, at 12; see also Microsoft's most recent quarterly filing outlining patent litigation, available at <http://www.microsoft.com/msft/sec.mspx>, and click on 2006 1st quarter results (last visited Mar. 7, 2006).

<sup>48</sup> See *supra* note 33, at 12; see also Microsoft's most recent quarterly filing outlining patent litigation, available at <http://www.microsoft.com/msft/sec.mspx>, and click on 2006 1st quarter results (last visited Mar. 7, 2006).

that they produce uncertainties that raise risk premiums and the cost of capital? How appropriate is our current system—developed for a world in which physical assets predominated—for an economy in which value increasingly is embodied in ideas?<sup>49</sup>

Ideas are central to our productivity growth through innovations, and are negatively impacted by the current litigious environment. Mr. Greenspan recommended further study, specifically in the areas of: (1) the interplay of ideas and economic growth; and (2) the effect of the length of patent terms on overall economic growth in an effort to develop a framework capable of analyzing the growth of an economy increasingly dominated by conceptual products.<sup>50</sup> Important to consider too, are the effects of patent infringement remedies on overall economic growth.<sup>51</sup> For if an injunction is to be the default remedy for patent infringement as it is presently, (rather than a damages award) the incentive is ever-greater to assert patent rights.

This expansive reading of statutory subject matter for business methods to include software has created strong incentives to patent such inventions. There are collateral effects however, to this phenomenon, most notably the use of patents for defensive and competitive purposes, which has had the perverse effect of slowing innovation while raising the cost of doing business. There are a range of options for Courts, Congress, the PTO, and patentholders going forward.

### *The Patent and Trademark Office*

The Patent and Trademark Office (PTO) understands that, as the gatekeeper to the award of a patent, it has responsibility to insure the legitimacy of patent grants, and to best accomplish this, they first need to develop a plan that represents a consensus of opinion with Congress, and the Courts. For the PTO to construe patent statutory subject matter narrowly, while at the same time the Courts construe that subject matter broadly leads to endless litigation, and an expensive, uncertain business environment. Once such a consensus is reached, there will be higher level of predictability in the legal environment. There are three important initiatives, in the areas of making patent examinations more rigorous; adding opportunity for review by third parties; and shortening the patent term length.

The PTO understands that its examination system for patent applications is in need of repair. The PTO announced an Action Plan for

<sup>49</sup> See *supra* note 6, at 4.

<sup>50</sup> See *supra* note 6, at 4.

<sup>51</sup> See Tony Kontzer, *Supreme Court to hear eBay Patent-Infringement Appeal*, GovernmentEnterprise.com, Nov. 28, 2005, available at <http://governmententerprise.com/news/174402273> (last visited July 14, 2006).

business method patents to improve the quality of the examination process in technologies related to electronic commerce and business methods.<sup>52</sup> Within this initiative the PTO specifically points out the problematic issue of prior art, which negates the patentability of an invention because the invention fails the non-obviousness test for statutory subject matter.<sup>53</sup> The challenge of identifying prior art in an emerging technology area is especially acute, and speaks to the need for additional resources, including specialized training of patent examiners. Examiners would be able to conduct a more rigorous investigation of patent, as well as non-patent literature, and thereby re-focus attention to the question of obviousness. Another strategy the PTO could pursue with improved resources is to promote the judicious use of interference proceedings. Such proceedings are called for when there is potential for a new application to interfere with a pending application or an unexpired patent.<sup>54</sup>

Finally, there are ways to improve patents from competitors and other third parties, and even other agencies. Recognizing that the patent examiner may not be all that familiar with the technology in question, third parties may now ask the PTO to re-examine patents, and may appeal the decision to a board. But third parties have only limited status. While they may not appeal that decision to the Court of Appeals for the Federal Circuit; the patentholder may pursue an appeal. Even the Federal Trade Commission has generated proposals for improving the patent system, in recognition that there are anticompetitive effects in the present system.<sup>55</sup>

<sup>52</sup> See *Business Method Patents Initiative: An Action Plan*, March 2000, United States Patent and Trademark Office, available at <http://www.uspto.gov/web/offices/com/sol/actionplan.html> (last visited June 28, 2006). This is also the issue before the Supreme Court in the *eBay v. MercExchange* litigation in which the Court is being asked to reconsider the judicial standard for 'when it is appropriate to grant an injunction against a patent infringer.' 401 F.3d 1323 (Fed. Cir. 2005), cert. granted, 73 U.S.L.W. 3733 (U.S. Nov. 28, 2005) (No. 05-130).

<sup>53</sup> See *supra* note 52 and accompanying text; see also 35 U.S.C. section 135 (2006) (outlining statutory requirements for remedies). The PTO's criteria is available at <http://www.uspto.gov/web/offices/pac/doc/general/index.html#novelty> (last visited Mar. 15, 2006).

<sup>54</sup> See *FTC Issues Report on How to Promote Innovation Through Balancing Competition with Patent Law and Policy*, available at <http://www.ftc.gov/opa/2003/10/cpreport.htm> (last visited June 28, 2006). For the full Report, see *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf> (last visited June 28, 2006).

<sup>55</sup> See Brenda Sandburg, *FTC Floats Controversial Patent Plan*, available at <http://www.law.com/jsp/law/LawArticleFriendly.jsp?id=1067350952811> (last visited Mar. 15, 2006).

*Congress—Legislative Strategies*

Congress could decide to take a more active role in overseeing agency actions, or it may modify the present legislative scheme. For example, Congress could vote to amend the present statutory scheme to shorten the patent term length.<sup>56</sup> Improving the quality, and limiting the duration of patents were in fact two recommendations made by Amazon CEO Jeff Bezos, of 1-click ordering fame.<sup>57</sup> Even in March 2006, he understood the urgency of the issues that we still face. Mr. Bezos wrote this Open Letter, excerpted here:

1. That the patent laws should recognize that business method and software patents are fundamentally different than other kinds of patents.

2. That business method and software patents should have a **much** shorter lifespan than the current 17 years—I would propose 3 to 5 years. This isn't like drug companies, which need long patent windows because of clinical testing, or like complicated physical processes, where you might have to tool up and build factories. Especially in the age of the Internet, a good software innovation can catch a lot of wind in 3 or 5 years.

3. That when the law changes, this new lifespan should take effect retroactively so that we don't have to wait 17 years for the current patents to enter the public domain.

4. That for business method and software patents there be a short (maybe 1 month?) public comment period **before** the patent number is issued. This would give the Internet community the opportunity to provide prior art references to the patent examiners at a time when it could really help.<sup>58</sup>

Finally, Congress may consider amending the burden of proof standard. There is a presumption of validity for patents,<sup>59</sup> and an accused infringer bears the burden of proving, by clear and convincing evidence, that the PTO erred in awarding the patent.<sup>60</sup> The FTC and others assert that the lowered standard of preponderance of the evidence is sufficient to defend against claims of infringement, since

<sup>56</sup> See 35 U.S.C. section 154 (2005), available at [http://www.uspto.gov/web/offices/pac/mpep/documents/2700\\_2701.htm#sect2701](http://www.uspto.gov/web/offices/pac/mpep/documents/2700_2701.htm#sect2701) (last visited Mar. 15, 2006).

<sup>57</sup> See Troy Wolverton, *Amazon CEO see solutions in patent reform*, available at [http://news.com.com/Amazon+CEO+sees+solutions+in+patent+reform/2100-1017\\_3-237801.html](http://news.com.com/Amazon+CEO+sees+solutions+in+patent+reform/2100-1017_3-237801.html) (last visited Mar. 15, 2006).

<sup>58</sup> See [http://www.oreilly.com/news/amazon\\_patents.html](http://www.oreilly.com/news/amazon_patents.html) (last visited Mar. 15, 2006).

<sup>59</sup> See 35 U.S.C. section 282 (2005).

<sup>60</sup> See 35 U.S.C. section 273 (2005).

software patentholders already enjoy too much protection for their inventions.<sup>61</sup>

### Courts—Judicial Decisions on Patents

Courts possess the power ‘to say what the law is.’<sup>62</sup> It is evident from this discussion that, with regard to software, courts have historically engaged in an expansive interpretation of statutory subject matter. Courts have also engaged in an expansive interpretation of the scope of patent claims. Furthermore, the Court developed an additional equitable relief theory in the form of the Doctrine of Equivalents through which a court may impose liability for infringement on a party *even though that party’s product does not literally infringe the claims*.<sup>63</sup> There are indications that the era of expansive interpretations of patent holders is closing. During this Term, the Supreme Court chose to hear two patent cases, both presenting quite basic questions relating to patents.

In one, *LabCorp v. Metabolite Laboratories*<sup>64</sup>, the Court is considering the scope of statutory subject matter, specifically just what type of discoveries and inventions may be patented. One reporter commented that this case highlights how the courts are granting patents at a level of abstraction that is unwise.<sup>65</sup> The Petitioners caution that, “This case amply demonstrates the danger of allowing someone to use a vague claim to patent the very act of thinking about a scientific principle.”<sup>66</sup>

In another case, *eBay v. MercExchange*, the Court is being asked to reconsider the judicial standard for ‘when it is appropriate to grant an injunction against a patent infringer,’<sup>67</sup> and thus whether injunctions should remain the default remedy for patent infringement. Again, as in the *NTP v. RIM* case, MercExchange is seeking to enforce patent rights in court, even while the PTO is engaged in a proceeding that may

<sup>61</sup> See *supra* note 47 and accompanying text.

<sup>62</sup> *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 177-78 (1803).

<sup>63</sup> See *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 40 (1997) (noting that the essential question under the Doctrine of Equivalents is: “Does the accused product contain features identical or equivalent to each claimed limitation of the patented invention?”). The Court has narrowed this Doctrine recently, however. See *Festo Corp. v. Shoketsu Kinzoku Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002).

<sup>64</sup> *LabCorp v. Metabolite Labs, Inc.*, 370 F.3d 1354 (Fed. Cir. 2004), *cert. granted*, 126 S. Ct. 543 (Oct. 31, 2005).

<sup>65</sup> See Michael Crichton, Op-Ed, *This Essay Breaks the Law*, N.Y. TIMES, Mar. 19, 2006, Section 4 (Week in Review), at 13.

<sup>66</sup> Brief for the Petitioner at 43, *LabCorp v. Metabolite Labs, Inc.*, No. 04-607 (Fed. Cir. June 8, 2004), available at [http://patentlaw.typepad.com/patent/brief\\_20for\\_20petitioner.pdf](http://patentlaw.typepad.com/patent/brief_20for_20petitioner.pdf) (last visited Mar. 30, 2006).

<sup>67</sup> See *supra* note 43 and accompanying text.

invalidate its patents.<sup>68</sup> This injunction standard has been settled law for nearly 100 years, with courts imposing injunctions against infringers as a default remedy, rather than as an extraordinary remedy—even for patent holders who do not use or commercialize their inventions.<sup>69</sup> eBay asserted that the injunctions overly favor patent holders, and in the end, impede innovation and fail to promote progress or innovation. eBay urged the Court to apply the four-factor test prescribed for patents, that involves a consideration of: the public interest, the circumstances of the case, the likelihood of prevailing in a trial, and whether the patent holder would be irreparably harmed without an injunction, or whether monetary damages would suffice.<sup>70</sup> MercExchange countered that patent holders were granted exclusive rights to use, or even just to keep others from using their inventions, and so injunctions are necessary to protect exclusive property rights in the patent, including the right to exclude others. Without this equitable relief in the form of an injunction, the Court would endorse a sort of mandatory licensing paradigm which would diminish patent holders' property rights in their inventions.

## CONCLUSIONS

We need to modify the present system in ways that work to promote innovation, as well as follow-on innovation, through strengthening the PTOs decisionmaking process; and by reducing potential legal threats in the form of abusive patent litigation. One important initiative that bears further investigation is to modify terms lengths for software patents. It is unrealistic to invalidate the entire class of patents. Congress and the PTO are best placed to address shortcomings in the patent system. With law, we need continuity and predictability, yet we also need to respond to realities, and need to build in the requisite flexibility to respond to economic and societal circumstances. Promoting progress, the stated purpose of U.S. Constitution, art. 1, section 8, is presumably accomplished through innovation and economic growth, yet

<sup>68</sup> See Grant Gross, *Supreme Court weighs eBay patent dispute*, itworld.com, Mar. 29, 2006, available at <http://www.itworld.com/Man/2687/060329ebay/pfindex.html> (last visited Mar. 31, 2006).

<sup>69</sup> See *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U.S. 405 (1908) (ruling that an injunction was appropriate for patent infringement even if patent holder did not use the patent; non-use of a patent does not affect the validity of a patent); see also Jess Bravin & Mylene Mangalindan, *In Patent Case, eBay Tries to Fight Its Way Out of Paper Bag*, WALL ST. J. Mar. 29, 2006, at B1 (noting the *Continental* case precedent, and the impact of its automatic injunction rule).

<sup>70</sup> See Declan McCullagh, *Supreme Court hears eBay's patent appeal*, zdnet News, March 29, 2006, available at [http://news.zdnet.com/2102-1040\\_22-6055547.html](http://news.zdnet.com/2102-1040_22-6055547.html) (last visited Mar. 31, 2006).

our present patent system works at cross-purposes to the accomplishment of these goals.