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Still Aiming at the Wrong Target: A Case for Business Method and Software Patents from a Business Perspective

Kristen Jakobsen Osenga

University of Richmond, kosenga@richmond.edu

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INTRODUCTION

Haste in every business brings failures. – Herodotus

Ten years ago, business method inventions went from being ineligible for patent protection to eligible, nearly overnight. In 2008, the tide shifted just as quickly in the other direction, calling into question which, if any, business method and software inventions can be patented. In the intervening years, there has been much angst surrounding patents on business methods and software. The evils of these patents have been hailed by everyone from judges1 to academics2 to mainstream.

1 Editors’ Note: This chapter was written prior to the Supreme Court’s decision in Bilski v. Kappos, which affirmed the Federal Circuit’s decision in In re Bilski but modified its rationale. 561 U.S. 593, 130 S. Ct. 3218 (2010). Contrary to the Federal Circuit, the Court held that the machine-or-transformation test was not the sole test for determining the patent eligibility of a process. Rather, that test was only “a useful and important clue . . . for determining whether some claimed inventions are processes under § 101.” Bilski, 130 S. Ct. at 3227. However, Osenga’s argument is not based on the precise rationale of the Federal Circuit’s decision. In fact, this chapter recognizes that the result of the Supreme Court’s grant of certiorari in Bilski would likely lead to a reduction in the scope of patentable subject matter for business methods. So although this chapter should be read with an understanding of the later history of the Bilski case, its discussion of the broader arguments for and against business method and software patents remains instructive.

2 Professor of Law, University of Richmond School of Law.

3 See, e.g., Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc. 548 U.S. 124, 138 (2006) (Breyer, J., dissenting) (noting that even if the claims in question were valid, it is important to debate whether the granting of business method patents “adequately reflects the ‘careful balance’ that the ‘federal patent laws . . . embody’”); In re Bilski, 545 F.3d 943, 998 (Fed. Cir. 2008) (Mayer, J. dissenting) (“Business method patents do not promote the ‘useful arts’ because they are not directed to any technological or scientific innovation.”).

media. In fact, it is media coverage of this type of patent that may shape the layperson’s perspective on intellectual property law generally.

To be sure, there are abundant examples of problematic patents on business method and software inventions, such as the much maligned Amazon one-click patent. But there are problems with patents on many other types of inventions, particularly those in burgeoning fields that had previously not been covered by patent protection. In the case of business methods and software, these concerns have prompted some to suggest that patents should not be granted for these inventions. Recently the Court of Appeals for the Federal Circuit seems to have embraced this suggestion and has made it much more difficult to obtain patent protection for business method and software inventions. And now, the Supreme Court is poised to consider the issue.

In an earlier article, Ants, Elephant Guns, and Statutory Subject Matter, I argue that the opposition to business method and software patents is misplaced. Because of the firestorm surrounding these patents, the PTO and the courts are using proxy-type inquiries to cut off the patentability analysis of these inventions at the threshold step. I contend that it is inappropriate to use the statutory subject matter inquiry to avoid more difficult questions of patentability and policy. Instead the PTO should be examining and the courts should be reviewing these inventions on an individual basis and on their merits, just as we do with every other type of invention.

It is not just the PTO and the courts that are avoiding difficult inquiries by wielding the statutory subject matter sword. Scholarship from the legal and business fields has


4 Consider that there has even been coverage of business method patents in the New York Times Magazine. See, e.g., James Gleick, Patently Absurd, N.Y. TIMES MAG. at 47 (Mar. 12, 2000) (describing the patent system as “in crisis” because of business method patents and further claiming that “[a] series of unplanned mutations have transformed patents into a positive threat to the digital economy.”).

The New York Times Magazine is a supplement to the paper that typically includes longer feature stories, along with fashion and style photography. See Wikipedia. At the end of May 2009, its cover story was about Conan O’Brian taking over the Tonight Show seat. This is clearly not the business section of the paper.

5 The Amazon patent is U.S. Patent No. 5,960,411, Method and system for placing a purchase order via a communications network. For some of the back story about this patent’s history, see, e.g., Evan Ratliff, Patent Upending, WIRED (June 2000) (available at http://www.wired.com/wired/archive/8.06/patents.html) (last visited Mar. 20, 2011).


7 See Pollack, supra note 2; Dreyfuss, supra note 2.

called for an end to business method and software patents, basing their arguments on misplaced proxy-type reasoning. In this chapter, I argue that, if we can dig into the literature and expose these proxy arguments about business method and software patenting, a solid case can be made that business method and software patents, done right, can be good for business.

In Part I, I briefly discuss the rise and recent fall of business method patents. Part II covers the scholarly literature discussing business method and software patents. In Part III, I explain the proxy argument that I have made elsewhere and show how it plays in the recent decisions surrounding the patent eligibility of business method and software inventions. I then explain why the analysis of business method and software patents in the literature uses the same proxy-type arguments to avoid more difficult questions of patentability and policy. Finally, I conclude by explaining how business method and software patents, if administered properly, are actually good for business.

I. THE RISE AND FALL OF BUSINESS METHOD PATENTING

Nothing is illegal if a hundred businessmen decide to do it. – Andrew Young

The rise of patent eligibility for business method and software inventions is a tale that has been told many times over. Although it is possible to find issued patents describing methods of doing business dating back to the late 1700s, the story gets more interesting some two hundred years later. After a string of Supreme Court cases in the 1970s and 1980s that led to the eligibility of software for patenting, the
Federal Circuit held in the late 1990s that there was no such thing as a business method exception to patentable subject matter, opening the patent eligibility door for these inventions as well. In short order, this holding led to a flood of filings of patent applications directed toward business method inventions. Applications covering these inventions increased from some 1300 filed in 1998 to nearly 8000 filed in 2001.

As the number of patent applications covering business method inventions quickly skyrocketed, the objections to these patents also grew. Courts, industry, and mainstream media all lodged complaints against the patent eligibility of business methods and software inventions. Interestingly, many of these complaints might be unfounded – they were based either on supposition, disdain, or, at best, a handful of anecdotes about unrepresentative business method patents, such as Amazon’s one-click process. The hostility of the various parties grew palpable as systemic criticisms abounded about the PTO’s failure to adequately examine patent applications in general, and particularly applications for these types of invention.

Perhaps in response to this loudening chorus calling for the end of patent protection for business method and software inventions, the PTO and the courts began to close the door. In 2007, the Federal Circuit issued two important opinions, In re Nuijten and In re Comiskey, that began to rein in the previously broad expanse of patent-eligible subject matter. In the Nuijten case, the Federal Circuit concluded that, regardless of utility, claims directed to electrical signals did not fall within the four categories of patent-eligible subject matter: processes, machines, articles of manufacture, and compositions of matter. In the Comiskey case, the court held that, even though a set of steps has practical application, it can still be an abstract idea or algorithm that is ineligible for patenting, particularly if it is only a set of mental steps. These cases, and similar appeals working their way through the PTO, laid the foundation for the death knell that was to come – the Federal Circuit’s In re Bilski case.

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15 See id.
16 See notes 1-3, supra; Hunter, supra note 14, at 1-2.
18 See Osenga, supra note 8, at 114-15; Hunter, supra note 14, at 3 (highlighting “disdain” for business method patents, “distrust of motives” and the examination process at the PTO, and “dismay” at the consequences that may flow from these patents).
19 500 F.3d 1346 (Fed. Cir. 2007).
20 499 F.3d 1376 (Fed. Cir. 2007).
21 Nuijten, 500 F.3d at 1354.
22 Comiskey, 499 F.3d at 1376-77.
In 2007, Bilski filed a patent application on a method of hedging risk to be practiced by a commodity provider. When the commodity provider enters into a contract to sell to a consumer at one fixed rate, the provider makes a second hedging transaction at a second rate with a second consumer, thereby reducing the risk associated with market fluctuations. The PTO rejected the claims under § 101 because the invention was "not implemented on a specific apparatus and merely manipulates [an] abstract idea and solves a purely mathematical problem without any limitation to a practical application." Bilski appealed the examiner’s rejection to the Board of Patent Appeals and Interferences (BPAI), which affirmed the rejection of the claims as nonstatutory subject matter.

Bilski then appealed to the Federal Circuit, and oral argument was held before a three-judge panel in October 2007, shortly after the September 2007 decisions in Comiskey and Nujiten. Before an opinion was issued, the Federal Circuit sua sponte ordered an en banc rehearing to consider the question of patent-eligible subject matter under § 101. Oral argument was heard on May 8, 2008, and the opinion was issued on October 30, 2008. The court’s opinion was expressly limited to determining what constitutes a patent-eligible “process” under 35 U.S.C. § 101. After reviewing its own statutory subject matter jurisprudence, as well as precedent from the Supreme Court, the Federal Circuit implemented the “machine-or-transformation” (MoT) test for determining whether a method is a patent-eligible process.

Based on comments made by sitting Supreme Court judges on the MoT test in 2007, the court overturned its earlier "useful, concrete, and tangible result" test for statutory subject matter. Id. at 956.

Editors’ Note: This article was written prior to the Supreme Court’s decision in Bilski v. Kappos, which affirmed the Federal Circuit’s decision in In re Bilski but modified its rationale.
Justices in other cases,

it is not clear that the patent eligibility for business method and software inventions is going to be as expansive as it was before.

Although the reaction to Bilski from intellectual property practitioners is mixed (but largely negative),

the reaction from business and industry has been fairly positive.

The happiness of members of the business and entrepreneurial community with Bilski likely flows from their concerns about business method and software patents.

These concerns are discussed in the next section.

II. THE BUSINESS OF BUSINESS METHOD PATENTING

Stop going for the easy buck and start producing something with your life. Create, instead of living off the buying and selling of others. – Martin Sheen (as character Carl Fox) in Wall Street

As noted earlier, it is not just the PTO and the courts that are calling for the cessation or, at least, the restriction of patent eligibility for business method and software patents. Scholars writing about the business of business method and software patents have also called for changes in patent protection of these inventions, some going so far as to state that these patents “play a central role in the failure of the patent system as a whole.”

There are, of course, some who claim the evidence does not bear this out and that there have been patents on these inventions for years without causing a catastrophe in the patent system.

Yet, the criticisms persist and must be addressed.

The bulk of the complaints coming from the literature can be summed up in three main, and quite interrelated, categories: abstractness and breadth, low quality, and negative effects on innovation and competition.

S. Ct. 3218 (2010). Contrary to the Federal Circuit, the Court held that the McT test was not the sole test for determining the patent eligibility of a process. Rather, that test was only “a useful and important clue... for determining whether some claimed inventions are processes under § 101.” Bilski, 130 S. Ct. at 3227.

See note 1, supra. One of the Justices who questioned business method patents, Justice Souter, retired from the bench in 2009. It is unknown whether his replacement will share a similar viewpoint. [Editors’ Note: His replacement, Justice Sotomayor, joined Justice Stevens’s concurrence in In re Bilski, which would have held that all business methods are patent-ineligible for failing to describe a process under § 101. Bilski, 130 S. Ct. at 3227.] See, e.g., Gary Odom, Milking Bilski, The Patent Prospector Blog, available at http://www.patenthawk.com/blog/2008/11/milking-bilski.html (Nov. 1, 2008) (last visited Mar. 21, 2011) (providing a summary of commentary on the then just-issued Bilski opinion, as well as allowing an open comment thread that demonstrates both positive and negative viewpoints).

See, e.g., remarks of David Kappos, Brookings Transcript at 80-1 (“I view the Bilski decision as being a good piece of work on the part of the Federal Circuit and an important step in the right direction...”) James Bessen & Michael J. Meurer, Patent Failure 214 (2008).

See Hunter, supra note 14, at 1-2.

Cf. id. at 14, at 4 (dividing the complaints about business method patents into three categories – process issues (examination problems), patents qua patents (quality), and proliferation (stilling
A. Abstract Technology and Broad Claims

One of the primary complaints about business method and software patents is that they cover abstract technologies and claim broad territory. Their abstractness and breadth then allow the patentee to adversely affect innovation by encompassing entire industries and competition through opportunistic litigation.37

There is a distinction between abstractness and breadth, although patent claims can certainly be both abstract and broad. The abstract nature of business method and software patents is attributed to the fact that they often claim results, rather than the method to achieve the results.38 Breadth, in contrast, refers simply to an expansive scope of protection. Both abstractness and breadth arise where patent claims are not limited to a distinct embodiment, where vague language is used (either inadvertently or strategically), or wherever the boundaries of the invented technology are unclear.39 Abstractness and breadth work together to permit patent claims that cover technologies that may not even be known to the inventor.40

There are a few reasons why abstractness and breadth are troublesome. First, inventors are being rewarded for something they did not invent and may not even know about.41 This goes against the reward theory for patents, which justifies the patent monopoly as being necessary to encourage inventors to invent and innovate.42 Second, the abstract nature makes it difficult for competitors to determine the boundaries of the patentee's exclusive rights.43 The notice provided by the patent is low, the costs of determining boundaries are high, and the costs are not linear.44 Finally, and this overlaps with another set of criticisms discussed later, the breadth and abstractness of these patent claims dominate potential downstream uses.45


37 See, e.g., BESSEN & MEURER, supra note 34, at 199-200; Robert P. Merges, As Many as Six Impossible Patents Before Breakfast, 14 BERKELEY TECH. L. J. 577, 599 (1999).

38 See remarks of David Kappas, Brookings Transcript, supra note 33, at 79. See also id. at 85 (“[T]he patenting of abstractions, especially business methods, has drive a real ends justifies the means kind of philosophy in the patent system, whereby we're approaching patents in a way that's covering the results, right, not how the results are achieved, and that I think is very, very dangerous.”).

39 See BESSEN & MEURER, supra note 34, at 200.

40 See id. at 199.

41 See id. at 200.


43 See BESSEN & MEURER, supra note 34 at 200.

44 See remarks of Peter Menell, Brookings Transcript, supra note 9, at 14-15;

45 See remarks of Rochelle Dreyfuss, Brookings Transcript at 89-90; see also remarks of Josh Sarnoff, Brookings Transcript at 117.
B. Quality Issues

Another common complaint about business method and software patents is that an inordinate number are “bad” or of low quality. Although there are a few different definitions of what constitutes a “bad” patent, it is safe to say that any patent that protects an invention that was well known before the application is filed is not good. These patents impose numerous and substantial costs on the system, including rewarding the patentee for something she did not invent, taking the invention out of the public domain, and causing notice problems because competitors believe the invention to be freely available.

Although the problem of patent quality is not limited to business method and software patents, the crisis seems to be exacerbated in this area for several reasons. The most common and pervasive argument is that the prior-art field for these business method and software inventions is not fully developed because they have only been eligible for patenting for the last decade; before that, these types of inventions were kept secret. Even when these inventions were disclosed, it was not in traditional publications that are easily searchable by the PTO. As one scholar has noted, “knowledge about business methods resides mainly in the practices and policies of the firms that use them, [and] even common methods may not be documented in the sorts of materials that examiners can efficiently consult.”

Another contention is that these patents are difficult to examine properly because of abstract technology and breadth, described earlier. Because the patent (or application) covers a wide swath of territory, including possibly unknown territory, it is nearly impossible for the PTO to ensure that the process is novel and nonobvious. Another contention is that it is particularly difficult to apply the standards of patentability to business method and software inventions because these requirements are not absolute – novelty is not a black-or-white standard.

Patent quality has been the subject of empirical study. For example, Starling Hunter reviewed a sample of business method patents for the amount of prior-art citation. He argues that because these patents cite as much, if not more, prior

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46 See Dreyfuss, supra note 2, at 268. See also Bronwyn Hall, supra note 9, at 13 (noting that high-quality patents are those that protect “an invention that is truly ‘new,’ rather than an invention that is already in widespread use but not yet patented.”).

47 See Jay P. Kesan & Andres A. Gallo, Why “Bad” Patents Survive in the Market and How Should We Change? – The Private and Social Costs of Patents, 55 EMORY L.J. 61 (2006). One of these costs is also opportunistic litigation, which is discussed in more detail later.

48 See Dreyfuss, supra note 2, at 269.

49 See id.

50 See id. at 268 (noting that the level of “newness” required for patentability depends on the field of invention); see also Justin Hughes, The Philosophy of Intellectual Property, 77 GEORGETOWN L.J. 287, 294 (1988) (“The novelty, however, does not have to be absolute. What is important is that at the time of propertization the idea is thought to be generally unknown. The res cannot be common currency in the intellectual life of society at the time of the propertization.”).
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During prosecution of business method patents, the amount of prior art cited is an incomplete definition of quality and that these patents still prove to be troublesome.

C. Adverse to Innovation and Competition

The problems of abstractness, breadth, and low patent quality all give rise to concerns about adverse effects on innovation and competition, which is why the literature comes down on the side that business method and software inventions should not be eligible for patenting.

1. Effects on Innovation

The literature contends that business method and software patents decrease innovation. The standard story is that patents are a necessary evil, trading a monopoly for the incentive to innovate and disclose. Generally, patent systems are important if there are high front-end costs or expenses to develop a new technology and low back-end costs, making it easy and inexpensive to duplicate the technology. Patent systems create problems where the technology is cumulative or sequential, because it is difficult to get rights to build on the preceding technology.

In the case of business method and software patents, the argument is made that the benefits are simply insufficient and the costs are too high. As Adam Jaffe has stated in testimony before Congress, “the patent system – intended to foster and protect innovation – is generating waste and uncertainty that hinder and threaten the innovative process,” particularly in fields such as business methods and software where products are complex and progress is incremental and cumulative. There are three main arguments presented for why patents on business method and software inventions adversely affect innovation: These patents are unnecessary, they tie up downstream innovation, and they affect research and development (R&D) spending.

First, some argue that patents are not necessary to encourage innovation on business method and software inventions. Generally, patent protection is thought to encourage disclosure and prevent free-riding, thereby incentivizing further innovation in an area. However, “[n]owhere in the substantial literature on innovation is...
there a statement that the United States economy suffers from a lack of innovation in methods of doing business [even before patents were available for these inventions]. Compared with the business practices of comparable economies we seem to be innovators. . . ."58 Thus, there is no justification on the upside for business method and software patents.

Second, the argument is that business method and software patents have at least one significant downside. Because of their abstractness and breadth, these patents "may effectively appropriate all possible solutions to a particular problem. This direct restraint upon the ability of competitors to develop alternatives to the patented invention thwarts a principal aspiration of the patent system – fostering new alternatives."59 This argument extends beyond all possible solutions to a problem, because downstream products are also affected by patent protection.60 This argument is common, even in fields outside of business method and software;61 however, combined with the lack of justification on the front end, the literature argues this cost is too high.

Finally, some literature argues that the increase in patent protection for business method and software inventions results in a decrease in R&D spending, which signals a decrease in innovation.62 Other literature counters this argument by stating that R&D spending is not a good proxy for innovation, in part because this spending is affected by many other factors.63

2. Effects on Competition

Patents on business methods and software are also said to have negative effects on competition. One argument is that these patents may have adverse effects on the market entry and exit of competitors in these fields. Another argument is that these patents are frequently wielded in opportunistic lawsuits that drive competitors out of business or protect business from normal competition.

With respect to entry and exit, \[\text{economic analysis says first that competition may suffer when we grant a monopoly right to the inventor of a business method but it will}\]

60 See Dreyfuss, supra note 2, at 265 (noting that advancements in technology are not enough – a "killer application" of the technology is required to inspire people to adopt the new developments).
61 See, e.g., Michael A. Heller & Rebecca S. Eisenberg, Can Patents Deter Innovation? The Anticommons in Biomedical Research, 260 SCIENCE 698 (1998) (claiming that the proliferation of intellectual property rights in the biomedical sciences decreases innovation and research in the field).
benefit if this right facilitates entry into the industry by new and innovative firms. 64 Patents can facilitate entry by signaling quality of the entrants or giving entrants access to profits from licensing, but it can also impede entry because patents and patent thickets may create a significant barrier to entrants.65 In fact, in the software field, firms are less likely to enter product markets where there are more patents.66 This may cause a decrease in competition, although patents may strengthen the position of players already in a market.67 Beyond entry and exit, business method and software patents adversely affect competition because, as Rochelle Dreyfuss notes, “Winning and losing is supposed to depend on execution, not on exclusive rights to the moves that need to be executed.”68

Business method and software patents also affect competition through the potential for opportunistic litigation. Litigation is problematic in any technology area, because there are reasons beyond patent validity and infringement for a defendant to settle a lawsuit. First, because patent claim construction is difficult and technology may be complex,69 the defendant may not be confident that the court will reach a correct decision.70 Second, until discovery is taken, it may be nearly impossible to distinguish between a strong lawsuit and a weak one.71 Finally, even a weak lawsuit will cost money to defend, and it might be cheaper to simply settle.72 These problems are alleged to be exacerbated in the case of business method and software patents because of abstractness and breadth, described earlier. Some argue that, even though many in the software industry are against patenting, a major share of patent lawsuits involve software patents; these scholars claim that abstractness and breadth lead to patents being acquired by nonsoftware and business method firms, which are happy to engage in litigation and patent enforcement efforts and which create patent thickets outside the software industry.73 Abstractness and breadth also lead to notice problems, as described earlier, which allow for opportunistic litigation.74

64 See Hall, supra note 14, at 3.
66 See id. at 33.
67 See id. at 33–34.
68 See Dreyfuss, supra note 2, at 276.
69 Business methods, however, are generally considered to be relatively simplistic, not complex.
71 See id.
72 See id. See also Kesan & Callo, supra note 47, at 69 n. 36 (“Although [bad patents] are prone to attacks on their validity, bad patents may nevertheless deter meritorious challenges: [S]mall companies may not be willing to invest resources in such a challenge, especially with the presumption of validity that attends PTO decisions. Rather, it may make sense for these companies to accept a license fee from the patentee, thereby leaving the inappropriate patent unchallenged.”)
73 See Bessen & Meurer, supra note 34 at 214.
74 See id. at 213 (“In sum, patents on software are not just like other patents… [B]usiness method and software patents claim all technologies with similar form or all means of achieving a result, when the actual invention is much more limited and often trivial.”)
III. THE PROXY OF THE BUSINESS METHOD PATENTING INQUIRY

When two men in business always agree, one of them is unnecessary. – William Wrigley, Jr.

As I argue in Ants, Elephant Guns, and Statutory Subject Matter, the PTO and the courts are using subject matter rejections as proxies for other, more difficult questions of patentability and policy. Subject matter rejections are particularly attractive because they are not based on prior art and are a “threshold inquiry,” allowing the application to be disposed of at an early stage. And yet, inquiries into novelty and nonobviousness have been hopelessly entwined into the § 101 analysis, leading to a confusion of both. In that earlier piece, I analyzed how each of the then-current and former tests for patent eligibility extended beyond the appropriate scope of the § 101 statutory subject matter inquiry. Many of the same arguments can be applied to the current standard set forth in Bilski, as well as to the reasons set forth in the scholarly literature for eliminating patent eligibility for business method and software patents.

As noted earlier, the current standard for patent eligibility of a process is the MoT test. The Supreme Court has granted Bilski’s petition for writ of certiorari, and the case will be part of the Court’s 2009 Term. However, as noted earlier, it is unclear that the Court will expand the Federal Circuit’s standard for patent eligibility, and it may even constrict it. In any case, the test imposed by Bilski suffers from the same defect as the tests that were previously in use – the questions being asked are not directed toward determining statutory subject matter, but are rather proxies for more difficult questions of patentability and policy.

The machine prong of Bilski asks whether the process “is tied to a particular machine or apparatus.” The machine used to satisfy this prong must impose meaningful limits and may not be merely “insignificant extra-solution activity.” Most currently pending business method applications and issued patents do not include a recitation of a machine. Many software patents and applications recite simply a “general purpose computer,” which may become a problem given the Federal Circuit’s comment that “[w]e leave to future cases the elaboration of the precise contours of machine implementation, as well as the answers to particular questions, such as whether or when recitation of a computer suffices to tie a process

75 See Osenga, supra note 8, at 115-17.
76 See id. at 116 (“This type of rejection is not based on prior art, and because patentable subject matter is a threshold issue, it allows the application to be disposed of at an early stage.”); In re Comiskey, 499 F.3d 1365, 1373 n. 7 (Fed. Cir. 2007) (“The § 101 issue is an antecedent question to the [other requirements for patentability].”).
77 Id.
78 Bilski, 545 F.3d at 954.
79 Id. at 961-2.
claim to a particular machine." The "machine" inquiry, however, is really a proxy for the actual question at issue: How does the method work? This question is more properly posed under § 112: Did the applicant fully describe and enable her invention? If the applicant does not explain how a process is to be implemented, either by machine or otherwise, she fails to satisfy the written description and/or enablement requirements, and the patent should not be granted or should be invalidated for that reason, not for lack of statutory subject matter.

The transformation prong of Bilski asks whether the process "transforms a particular article into a different state or thing." The transformation "must be central to the purpose of the claimed process," and the articles undergoing transformation must be physical objects or representative of physical objects. But again, the "transformation" question is a proxy for the real question: Is it useful? That is a question better asked under § 101 utility. Although § 101 utility and § 101 patent eligibility both reside in the same statutory section, the inquiries are distinct; that is, something can be "useful but not subject matter (gravity), . . . subject matter but not useful (purified chemical compositions from plants and animals with no known uses), or [neither useful nor subject matter] (e-ez and naturally occurring chemical compositions with no known uses.)" Further, these two issues are subject to review by the Federal Circuit under different standards.

Just as the PTO and courts are using the statutory subject matter inquiry as a proxy to avoid more difficult questions of patentability and policy, the arguments raised in the scholarly literature in support of eliminating business method and software patents are largely not about statutory subject matter at all. Claiming that business method and software inventions should not be eligible for patenting misplaces the focus or aims at the wrong target.

The arguments about abstractness and breadth are very similar to the concerns that the PTO and the courts have been addressing using, most recently, the MoT test. If the patent claims are sufficiently enabled and describe the invention in the inventor's possession, both of which are required by § 112, then the concerns about overbreadth and abstractness will be minimized. Specifically, the concerns that the patent will cover things that the inventor never contemplated or that the patent will cover all possible solutions relate less to situations where the inventor is held to the

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80 Id. at 952.
81 Id. at 954.
82 Id. at 956.
83 Id. at 963.
85 See Kevin Casey et al., Standards of Appellate Review in the Federal Circuit: Substance and Semantics, 11 Fed. Cir. B.J. 279, 36 (2005) (noting that subject matter is a question of law reviewed de novo, but utility is a question of fact reviewed for clear error).
obligation to fully describe his invention (and the courts are then faithful in only giving him exclusive rights to the extent his patent describes).

The arguments about patent quality are inextricably linked to other requirements of patentability, which is precisely why lumping this problem into a discussion of patent eligibility is so wrong. Whether or not the PTO can adequately examine these types of inventions should have nothing to do with the existence of patent protection on business methods and software. Of course, there is a problem with patent quality, a problem that extends beyond business methods and software. In fact, many people claim that the invention claimed in the Bilski application is painfully obvious. But the answer to this problem is not to deny patent protection to a whole area of innovation; rather the solution must be to improve examination standards and deny patents for particular applications that are not novel, obvious, or fail to be adequately described or enabled.

Similarly, the complaints that business method and software patents negatively affect innovation and competition contain some proxy-type arguments. For example, the concern that these patents will affect downstream innovation is related to the abstractness and breadth issues, which boil down to a difficult inquiry under § 112. The concern about opportunistic litigation is made much more palpable when the patent in question is weak, which is related to abstractness, breadth, and patent quality. All of these issues are better addressed under the other patentability requirements, namely §§ 102, 103, and 112.

IV. THE POSITIVES OF BUSINESS METHOD PATENTING

Innovation is the specific instrument of entrepreneurship...the act that endows resources with a new capacity to create wealth.” – Peter Drucker

So what is good about business method and software patents? If we deal with the troublesome issues described in the literature, maybe there is no real problem. In fact, what may be causing the problems going forward are actually the solutions that have erroneously been put into place. Consider a scenario where the fields of business method and software patents are allowed to mature. The body of prior art becomes rich, and the examining corps gains expertise. Patents are only granted for inventions that are fully enabled and described and that are novel and nonobvious, just like in every other field. Then patents on business method and software inventions become less suspect and higher quality, and all is right with the world.\footnote{This is not merely a pipe dream. See Martin Campbell-Kelly (cited in Bessen & Meurer, supra note 34, at 188) (“History shows us that software patents are not so different from other patents in the information technology industries, and that the patent system is capable of adjusting to the particularities of individual industries.”).}

Instead, the patent eligibility tests set up by the PTO and the courts, beginning in 2006 and culminating with the Bilski opinion, will have the opposite effect.
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Because these inventions are no longer eligible for patenting, prior art will again become scarce, and the only expertise the examiners will get is in making quick rejections for lack of statutory subject matter. Instead of moving forward toward a system of higher quality business method and software patents, we are taking two steps backward.

But let us go back to the first scenario. Business method and software patents have improved in quality. The issues of abstractness, breadth, and quality are no longer serious concerns, at least no more so than in any technology area. Are patents on these inventions still bad for business? I think the answer is no.

Looking at the remaining complaints about business method and software patents, the primary concerns seem to be that these patents are not needed for innovation and that they affect R&D spending and market entry and exit. The main thrust of the argument that patents are not needed for innovation in this sector hinges around the idea that there was no shortage of innovation in this area even without protection. The reality, though, is that many business method and software inventions (not to mention many other types) are created out of need—the so-called user innovation. The idea of user innovation is borne out by looking at who obtains patents on business method and software inventions. Only one in ten patents is obtained by a financial services firm or payment system company, the typical business method businesses. More than one third of business method patents are granted to information and communication technology firms. Other business method and software patents are scattered throughout various industries, many stemming from a problem that necessitated a solution that ended up being innovative. The idea that people invent to solve a problem they have is not unique to business methods and software, and yet we do not question the grant of patents in those other areas. The argument that patents are not needed to encourage innovation in the business method and software fields, in the absence of other issues such as quality, abstractness, and breadth, seems to have less import about whether or not there should be business method and software patents.

Finally, the only remaining complaints about the negative effects of business method and software inventions are their potential to decrease R&D spending and adversely affect market exit and entry. And yet, the empirical literature, as discussed earlier, does not bear out these concerns. It may skew how we look at these events, but there is no clear indicator that patents cause a lack of competition and innovation, and in fact, they may even promote these things.

88 See remarks of Bob Hunt, Brookings Transcript, supra note 9, at 16. This number has been rising, however, See id.
89 See id.
90 See id. at 468.
So if business method and software patents can be properly examined by the PTO for requirements of patentability—including § 102 novelty, § 103 nonobviousness, and § 112 written description and enablement—and if the negative effects on competition and innovation can be addressed through this more thorough examination, then business method and software patents are really not all that bad.

In fact, an argument can be made that these patents, if done right, are good for business. Although business methods and software can be produced with minimal front-end cost, more so for business methods than software, both types of invention are amenable to free-riding, because they are easily and inexpensively duplicable. Further, business method and software patents encourage disclosure of inventions that heretofore had been kept as trade secrets, a tradeoff for the grant of the monopoly.

**CONCLUSION**

The current state of patent eligibility for business method and software inventions is in disarray, but much of the discussion is focused in the wrong place. The tests implemented by the PTO and the courts, as well as examined in the literature, are aimed at the wrong target. The real problem is not substantive, determining whether these types of invention should be eligible for patent protection. Instead the quandary is much more procedural: Can the PTO adequately examine patent applications covering business method and software inventions? Procedural difficulties should not drive the law, particularly where the law being implemented shuts out the reality of business and industry today.

Rather than continuing the dialog about whether business methods and software are statutory subject matter, we should take aim at the PTO’s examining techniques and ensure that patent applications are being held to the appropriate level of scrutiny for written description, enablement, novelty, and nonobviousness. Because the bulk of the concerns about these patents arise from other patentability questions, this change would go a long way toward determining if business method and software patents are truly different from those in any other burgeoning field. Until this is fixed, there is no way we are going to hit the right target.