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Internet Business Method Patents: Why the Contrarians have it Right.

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Abstract

This Article will review the history of business method patents (BMPs) and make the argument that, despite all the bad press from the majority of commentators, BMPs meet the same statutory requirements as other patents and their quality is at least as good, if not better. In addition, it will make the argument that BMPs satisfy the constitutional policy requirement of a quid pro quo for the public—potentially contributing to the explosive growth of e-commerce as opposed to impeding it. Finally, it will provide some practical advice for clients either desiring to acquire BMPs or concerned about infringing on them.

I. Introduction

The controversy regarding patents goes back to the early days of the republic.¹ Thomas Jefferson was vehemently opposed to monopolies of any sort and required convincing from James Madison before he agreed to approve the Patent and Copyright clause of the United States Constitution.² This clause grants inventors a monopoly “for limited Times” in order “[t]o promote the Progress of Science and useful Arts.”³ Embedded in this clause is the genesis of the initial and ensuing debate, namely that monopolies are not a good thing and are grudgingly granted in order for the public to receive the benefits of progress—a quid pro quo. Whether or not the public is receiving the benefit of this bargain is always central to any argument either for or against patents in general. Software patents, for example, have generated a spirited debate regarding whether or not they promote or impede innovation, as have biotech patents, and so forth going back to the days of Henry Ford.⁴ In this regard the controversy surrounding business method patents (BMPs) is nothing new. In particular, a common complaint is that assessing prior art is more difficult with respect to BMPs,⁵ but this difficulty is pertinent to nearly all patents categories. Software patents were previously attacked on similar prior art assessment grounds.⁶ The old arguments are often recycled for each new technology.

In order for an invention to be patentable it must be a “new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof”⁷ and must also be “non-obvious.”⁸ These are the basic statutory requirements of any patent and clearly a BMP must fit into the scope of the statute in order to be considered patentable subject matter. The definition of a BMP and the manner in which they purportedly fit into the statutory scheme are explored in part II of this article along with a brief history of BMPs, the case against them, and how Congress and the United States Patent and Trademark Office (USPTO) have responded to the controversy. In addition, Part II will explore the case law immediately following *State Street Bank v. Signature Financial Group*,⁹ the landmark case that led to the current debate, by examining the “one-click” patent at issue in *Amazon v. Barnes and Noble*¹⁰, the case that “set fire” to the controversy.

Part III will revisit the case law post *State Street* in a more comprehensive manner, further exploring why BMPs meet the statutory requirements and providing both empirical and anecdotal evidence supporting the quality of BMPs. In short, part III will argue that BMPs have contributed to the growth of e-commerce as practiced on the Internet and provides support for why they are consistent with the underlying policy rationale that underpins IP law in general and patent law in particular. This section will also advance practical advice to stakeholders struggling with business and legal issues surrounding BMPs.

II. Background

This section first considers a brief history of BMPs and then discusses *State Street* and the decisions that led to it. Next Amazon’s “one-click” patent is discussed as the spark that ignited the BMP controversy in earnest. Following the discussion of the “one-click” patent the arguments against BMPs are summarized. Finally this section considers how the USPTO and Congress responded to the fury.

A. Brief History of Business Method Patents

It appears that even the history of BMPs is not without its share of controversy. Although some commentators suggest that the *State Street* decision opened the flood gates to BMPs by doing away with the “business method exception”¹¹, the USPTO describes an unbroken history of business method patents going back as far as 1799.¹² This section will explore this history in order to provide the necessary context for *State Street*—a case whose holding still reverberates through the wires of the Internet and through the minds of those concerned with how commerce is conducted on it. The goal here is not to resolve these historical issues, but rather to set the stage for a discussion of BMPs next evolutionary step.

Before proceeding it is useful to have a workable definition of what constitutes a BMP. However, attempts to provide a precise definition of a BMP have proven intractable and at least one judge on the Federal Circuit Court of Appeals (CAFC) has proposed doing away with any further attempts at a definition, instead suggesting that BMPs be treated in the same manner as other process patents.¹³ As several commentators have noted “we are left to our own devices” with respect to defining the composition of a BMP, but in general it’s a type of patent that encompasses a “business practice or technique.”¹⁴ The circularity of this definition is indicative of the types of problems that the courts have struggled with.¹⁵ A representative sample of BMPs over time is presented infra as perhaps the best way at getting a sense of the category.

According to the USPTO the first BMP was issued in 1799 for an invention related to “Detecting Counterfeit Notes.”¹⁶ This was obviously at a time when the industrial revolution was not yet in full swing let alone data processing and computer automation. However, in 1889, less than a century later, a number of patents were granted to inventor-entrepreneur Herman Hollerith for “the tabulating and compiling of statistical information for businesses and enterprises”¹⁷—arguably launching the era of automated/financial BMPs.¹⁸ Hollerith’s Tabulating Machine Company later

morphed (circa 1924) into a company called International Business Machines (IBM).¹⁹ Indeed, the intervening time period (i.e. between 1799 and 1889) was not without additional activity. In the first fifty years of the USPTO forty-one financial patents were granted in arts ranging from “detecting and preventing counterfeiting” to “interest calculation tables” and “lotteries.”²⁰

According to the USPTO the most significant difference in the patents issued today versus those of the early years is not so much related to greater ingenuity on the part of contemporary inventors but rather the perfection of automated data processing machines by which they are implemented.²¹ According to this view it is “software controlled microprocessors” that have delivered the latest round of perfection.²² Implicit in this worldview is that BMPs today are nothing more than American business ingenuity on technological steroids.

Other commentators are far less sanguine about the unbroken history of BMPs.²³ One indicates that the history of BMPs starts with the holding in *State Street* because it reversed the “business method exception” articulated in *Hotel Security Checking v. Lorraine Co.* (1908)—which held that BMPs were “merely techniques” that lacked novelty and therefore were not patentable subject matter.²⁴ Another commentator indicates that the Second Circuit Court of Appeals in *Hotel Security Checking* was apparently even more forceful in its denouncement of BMPs stating that a “system of transacting business disconnected from the means for carrying out the system is not, within the most liberal interpretation of the term, an art.”²⁵ The court also reasoned that BMPs were similar to “abstract ideas” and therefore not patentable subject matter.²⁶ Yet another commentator acknowledges the importance of the *Hotel Security Checking* holding (i.e. in its apparent effect of slowing down, if not halting the BMP train) but indicates that its erosion started long before *State Street* with the gathering steam of software patents as exemplified by the decision in *Diamond v. Diehr*²⁷—a decision wherein the Court upheld as statutory subject matter a claim on “a method of

operating a rubber molding press for precision-molded compounds with the aid of a digital computer.”²⁸

Post *Diehr*, the primary lesson learned by patent lawyers was that software was patentable as long as it was embedded in a process that produced a physical result in the real world, but that the patentability of software, in and of itself, was still off limits.²⁹ In other words, you could patent software as long as it was “hidden in an otherwise patentable process or machine.”³⁰ The ensuing tolerance for embedded software apparently provided the necessary rationale for allowing some patents on methods of doing business in the 1980’s and early 1990’s, however the courts continued to struggle with the blurring distinction between what was and was not patentable subject matter related to software and “pure” business methods.³¹ Subsequently, in the 1994 case of *In Re Schrader*, in what is now considered an important dissent four years prior to *State Street*, Judge Pauline Newman reviewed the business method doctrine and concluded that “it merits retirement from the glossary of Section 101.”³² She also distinguished *Hotel Security Checking* and other business method cases as being primarily decided on grounds of novelty and non-obviousness—further undermining the historical relevance of the doctrine.³³

In *State Street*, the CAFC settled two important issues that had long confounded the courts: one regarding the patentability of software standing alone and the other regarding “pure” business methods.³⁴ With respect to software, the court held that as long as an algorithm implemented in software produced a “useful, concrete, and tangible result” then it constituted patentable subject matter.³⁵ In this particular case the specific result was a dollar amount of interest to the financial services industry³⁶. The clear inference was that software meeting the aforementioned test would no longer be considered abstract. With respect to business methods the court adopted Judge Newman’s reasoning from *In Re Schrader* and took the “opportunity to lay this ill conceived exception to rest”—

concluding that it never should have survived the 1952 Patent Act’s “all-inclusive definition of statutory subject matter.”³⁷

Despite the perhaps uneven and conflicting views of the historical record, there is no doubting the importance of *State Street*, because “if it did not quite revolutionize the law, it refined and restated it with absolute clarity.”³⁸ However interesting the pre *State Street* history might be, for the purposes of this article, only the modern history of BMPs is relevant. Therefore all roads lead to *State Street* and all that has followed.

B. The Click Heard Round the World

There can be little doubt that *State Street* is the landmark case that set the stage but it pales in notoriety to the *Amazon v. Barnes and Noble* “one-click” case.³⁹ However, post *State Street* and pre *Amazon* there was also *AT&T v. Excel Communications*,⁴⁰ a case that provided additional clarity regarding the direction that the CAFC had embarked upon. In 1994, AT&T was granted a patent for the creation of a message record related to long distance calls.⁴¹ In its 1999 suit against Excel Communications the AT&T patent at issue contained ten method claims as opposed to the means-plus-function claims in *State Street*.⁴² The district court, apparently still confused by the holding in *State Street*, granted summary judgment to Excel on the grounds of non-patentable subject matter under §101,⁴³ noting that the mathematical algorithm utilized was not sufficiently transformative.⁴⁴ On appeal the CAFC reversed, holding that statutory requirements for patentable subject matter were indeed met.⁴⁵ The rationale for reversal focused on a variable (calculated in software) that provided a record of the customer’s long distance carrier—a calculation that produced a “a useful, non-abstract result that facilitates differential billing of long-distance calls”⁴⁶ sufficient to meet *State Street*’s “useful, concrete, and tangible result” test. *AT&T v. Excel* therefore ended any lingering confusion regarding the patentability of software as embodied in a machine or process and, together

with the previous demise of the business method exception, opened the door to a wide array of software enabled business/financial patents.⁴⁷

This was the door that Amazon walked through in bringing its suit against Barnes and Noble (BN). Although the door was clearly opened it could just as readily close if the requirements of novelty and non-obviousness are not met.⁴⁸ These requirements must be met by all utility patents and in that sense, post *State Street* and *AT&T*, software and business method patents had finally achieved a kind of first class status. Amazon capitalized on this newfound status by filing its “one-click” patent and ignited a furious debate that many commentators felt threatened the nascent future of e-commerce. E-commerce is obviously alive and well, rumors of its pending demise were greatly exaggerated. That said, the story of Amazon’s patent is still of interest, because it sets the stage not only for the ensuing debate, but also for this article’s central argument.

A BMP may be difficult to define but its operational characteristics are somewhat more straightforward. BMPs purport to do the following: “exclude others from making, using, selling, or offering to sell the services or functions set forth in the patent rights-defining claimed method, the data exchanged with the claimed method, or a computer program which embodies functional steps of the claimed method.”⁴⁹ Although BMPs need not involve a computer program, those that do are often contained within Internet e-commerce products and services.⁵⁰ Amazon’s “one-click” patent’s broadest claim is exemplary and begins as follows:

A method of placing an order for an item comprising: under control of a client system, displaying information identifying the item; and in response to only a single action being performed, sending a request to order the item along with an identifier of a purchaser of the item to a server system;⁵¹ It goes on to specify how the server manages the request and that the item is purchased “without using a shopping cart ordering model.”⁵² Even to a lay observer of e-commerce, it should be apparent that what is claimed is quite broad. This fact was not lost on anyone intending to do

business online, not the least of which were Amazon's direct competitors. Although the trial court in Amazon's subsequent suit against BN issued a preliminary injunction barring BN's use of a similar method, the CAFC later reversed on the grounds that BN had raised a "substantial question of patent invalidity" at least sufficient enough to deny a preliminary injunction.⁵³ Subsequent to this decision the suit was settled in 2002.⁵⁴

The cat was now clearly out of the bag and the "hue and cry" was immediate and virulent. One commentator described the "one-click" patent as "a classic example of the kind of software patent that would never be granted if the patent office had even the slightest clue about software."⁵⁵ Another, continuing in a similar vein, accused the USPTO of incompetence due to lack of training.⁵⁶ Apparently under this view it was not the CAFC that erred but rather the under-trained employees of the USPTO that just didn't "get it." Legal academics were joined by other interested members of the community in denouncing the "one click" patent and in expanding the debate to include all computer related patents—claiming "a chilling effect on public and consumer interests."⁵⁷

The popular press was not to be outdone, sensing perhaps a "mega story" in the making. James Gleick, a well-known writer on science related topics,⁵⁸ crafted a piece entitled "Patently Absurd"⁵⁹— responding to Amazon's increasingly controversial patent. The subtitle of the article provides the essence of his argument: "Once the province of a nuts-and-bolts world, patents are now being applied to thoughts and ideas in cyberspace" and "[i]t's a ridiculous phenomenon and a nightmare for e-commerce."⁶⁰ Clearly the Court has held that ideas, without more, are not patentable subject matter.⁶¹ A fact that failed to deter the onslaught against BMPs that followed Amazon's "one-click" suit. The arguments against BMPs are varied and are summarized in the section that follows.

C. The Case Against Business Method Patents

Despite the apparent “piling on” against BMPs post *Amazon v. Barnes and Noble*, or what one commentator has more eloquently called an “information cascade”,⁶² a societal phenomenon found in fads, riots and the “herd behavior of stock market investors,”⁶³ it is nonetheless important to review the substantive contra arguments. At least initially these contra arguments were either held by the majority of commentators or received the most attention from law journals and other publications, thereby managing to create the impression of a majority view. In any case, it is the central premise of this article that the “majority” got it wrong and it is imperative, at least in broad terms, to understand what it was they objected to, and more importantly their rationale for doing so.

These arguments are broken down into four categories:⁶⁴ 1) Rhetorical: using the writer’s power of persuasion (and reputation) in general, perhaps with the aid of hypotheticals, to argue against BMPs; 2) Quality: identifying qualitative characteristics of BMPs to infer that their quality is lacking vis-à-vis other types of patents; 3) Efficiency: essentially making the economic argument that BMPs impede rather than promote innovation; and finally 4) Consistency: arguing that BMPs do not comport with the underlying founding principles and policies of patent law.

There are certainly other categorization taxonomies that might be envisioned, however other commentators have used an analogous method⁶⁵ and it suffices for the purposes of this article.

1. Rhetorical Arguments

These arguments were primarily responding to the fury created by the “one-click” patent and were influential, if not entirely persuasive or compelling on substantive grounds. It obviously did not hurt the “cause” that some legal luminaries weighed in, contributing to the initial rising tide of hardening positions against BMPs. Richard Posner argued that in the case of BMPs the monopoly power granted by patent protection greatly exceeded the potential cost of patent development⁶⁶—despite the dearth of any case law linking patentability to cost of development. Lawrence Lessig

predicted that BMPs would devastate the Internet and compared BMP enforcement to mafia like tactics,⁶⁷ further arguing that they were “new monster[s] called forth from an old statute.”⁶⁸

Other commentators used the device of a well-crafted hypothetical to imply the devastation that BMPs would potentially wreak on the nation’s commerce, electronic or otherwise.⁶⁹ For example: “Think how the airline industry might now be structured if the first company to offer frequent flyer miles had enjoyed the sole right to award them ...;” or “What ... if Federal Express had been able to force all commercial shippers to choose between continuing to use inefficient methods of moving freight or paying a significant royalty to use the concept of centralized shipping hubs using computerized package tracking?”⁷⁰

Finally, still others simply asserted that businesses did not require patent protection as an incentive to innovate or expressed concerns regarding “lock-in effects and network externalities” or that Internet “first mover advantages” would cause greater economic harm than in other industries.⁷¹ Whatever form these arguments took, a recurring theme was that commentators mostly ignored any substantive analysis at all, instead opting for “straw man” arguments that fell mostly outside the scope of patent doctrinal analytics—providing patent related commentary that is difficult to argue against on the merits. These arguments are considered *infra* to the extent they touch on substantive issues.

2. Quality Arguments

BMPs are routinely criticized as inferior to other types of patents but almost always without any empirical support.⁷² Several commentators have stated the quality conundrum as follows:

“[p]atent quality is an elusive concept, but it essentially consists of the likelihood that a patented invention meets the requirements of novelty and nonobviousness, and thus will be found valid if challenged in litigation.”⁷³ Accordingly, one of the key complaints against BMPs is that they are of “low quality” because they are issued by the USPTO but would not hold up as valid when

subsequently challenged in a court of law. Two often cited examples are Amazon's "one-click" patent and "Priceline.com's patent on the reverse auction technique for buying airline tickets on the Internet"—both purportedly failing the aforementioned requirements.⁷⁴

Contributing to the idea of low quality is the perception that BMPs are more abstract than other types of patents and therefore closer to ideas than to the physical inventions that have historically exemplified patentable subject matter.⁷⁵ It is certainly easy to make the argument that BMPs are more abstract than physical inventions—not only do they appear to be, but often arguably are, more abstract. However a comparison along a relative continuum of abstraction is not the relevant question, but rather whether or not the statutory requirements are met. Certainly chemical patents and patents related to the human genome are also radically more abstract than physical inventions. Are these also, without more, likewise of low quality? As previously mentioned, the Court has always held that abstract ideas, standing alone, do not constitute patentable subject matter.⁷⁶ Patent law confers a property right not on ideas but on particular "instantiation of the idea" captured in a concrete form,⁷⁷ or in the case of software, in a form producing a "useful, concrete, and tangible result."⁷⁸

More specifically, the "poor quality" arguments are often supported by the "conventional wisdom" that BMPs cite less prior art, are overbroad as manifested by making a larger number of claims, and are assigned to a greater number of patent classes.⁷⁹ These generalizations have now been challenged by a number of empirical studies suggesting that BMPs are no worse than other types of patents and perhaps, depending on the metric used, better.⁸⁰ Although it cannot be accurately stated that these studies have completely debunked the conventional wisdom, they have set the bar for future commentators that casually use unsupported generalizations, a topic to which this paper returns to *infra*.

3. Efficiency Arguments

Essentially efficiency arguments are economic arguments related to whether or not BMPs contribute to or impede innovation, and in this sense are not distinct from similar arguments that have, from the very beginning, been made regarding the patent regime in general.⁸¹ The efficiency arguments against BMPs suffer from (as have all previous contra efficiency arguments) the daunting task of providing a causal link between IP law and the lack of economic growth. A pro BMP argument faces a similar challenge when citing favorable economic growth data. At best, as this article does subsequently, general macro economic trends and productivity numbers are used as a proxy for this relationship, and this must suffice until econometrics are significantly more sophisticated than they are under the current state of the art. Here efficiency arguments against BMPs are examined, but keep in mind that they differ mostly in degree, and are substantially of a similar kind as efficiency arguments proffered against other patent types.

The thrust of the contra efficiency arguments relates to specific types of economic inefficiencies that are exhibited by BMPs.⁸² Even low quality BMPs, those that are likely to be later invalidated, cause economic inefficiencies because by the time the patent is invalidated the economic harm has already occurred.⁸³ For example, it might be argued that Amazon derived a significant competitive advantage from its “one-click” patent despite the fact that it later settled its suit with BN, having already lured millions to its site. One commentator asserts that BMPs impose a higher social cost (i.e. the BMP monopoly is less of a quid pro quo) because they are more abstract and therefore presumably occupy more of the field than would normally be the case.⁸⁴ Although this argument may be of interest rhetorically, the author provides no economic data, anecdotal or otherwise, to support the claim.⁸⁵

Other commentators have looked at BMPs from a competitiveness perspective, juxtaposing the antitrust laws with the patent monopoly on the one hand, and business risk on the other, in

order to provide an economic framework by which BMPs can be measured.⁸⁶ Central to this argument is that not all business innovation requires patent protection.⁸⁷ It is only business innovation requiring the greatest risk that should be rewarded with patent protection, because without patent protection presumably entrepreneurs would forsake the risk and society would be the worse for it.⁸⁸ It is argued that BMPs require less risk taking than other patents and therefore deserve less protection, or perhaps none at all.⁸⁹ But this framework is also problematic in that business risk is difficult to measure. If “risk reward” is the standard for measuring patentability then this would exclude a significant number of patents in all categories, not just BMPs. Furthermore, it would likely involve an examination process perhaps even more difficult and cumbersome than the one currently available, and turn upside down much of what is now considered settled patent law.

It is difficult to see how low quality BMPs, without empirical evidence, can produce a greater competitive advantage for inventors than low quality patents in general. This appears to be a quality argument couched in economic terms. Furthermore, with respect to the imposition of significant additional social costs by BMPs, if there were economic data supporting this proposition then it would certainly be a strong argument that the underlying rationale for the patent regime is undercut. As noted previously, Jefferson only acquiesced to the patent monopoly after he was convinced that the public would gain more than it lost.⁹⁰ But no such data is currently available and none is likely any time soon. Finally, the competitiveness argument, although positing that not all business innovation requires protection (something arguably everyone would agree with) misses the point that a patent monopoly is only granted for inventions that are “new, useful and non-obvious.”⁹¹ Implicit in the non-obvious requirement is the elimination of many inventions that require little or no risk. Furthermore, risk taking is not a statutory or constitutional requirement, and therefore not a valid substantive criticism.

In short, contra efficiency arguments tend to suffer from many of the same problems as the contra quality arguments, without empirical data it is difficult, if not impossible, to separate these arguments from arguments that can be made against the patent regime in general. Although they might be useful in questioning why patents are necessary, they appear far less useful in singling out BMPs as being particularly pernicious.

4. Consistency Arguments

The categorization of arguments may be useful as an organizational device but as should be evident from the discussion above, the boundaries are not easily maintained. Consistency arguments essentially argue that BMPs are unconstitutional, not meeting the policy requirements as set forth in the constitution, but also tend to use rhetorical, quality and efficiency arguments to support their rationale. Obviously these arguments presuppose that the CAFC got it wrong in *State Street* and to the degree that Supreme Court decisions paved the way then these were also at least partially flawed. In short, the essence of these arguments is that BMPs do not “promote the Progress of Science and useful Arts.”

One commentator has advanced the following four arguments against the constitutionality of BMPs: 1) Common sense shows that BMPs do not promote progress; 2) Congress has not considered whether BMPs promote progress; 3) the phrase “useful arts does not include mere commerce;” and 4) the founders would have considered BMPs abusive.⁹² This article will consider these arguments individually.

The common sense argument states that since entrepreneurs are already incented to develop methods of doing business that increase profits no monopoly pricing power is required to induce the desired behavior.⁹³ Although the author suggests that mere common sense leads to this conclusion,⁹⁴ common sense can just as readily anticipate a business method (e.g. process) that might involve a high degree of inventiveness, perhaps yielding significant returns to the public good, but

one that an entrepreneur might not otherwise be willing to take without some assurance that they could recover their research and development costs. For example, consider a process that gathers data from the nation's ports and uses this information to help ports predict where screening errors, depending on cargo type, might most cost effectively be reduced. The result of which not only improves margins from port operations but also produces a concomitant reduction in the potential loss of human life from terrorist activity. Should this process be denied a patent because of common sense? The author appears to equate common sense with low risk, but as has been previously noted a threshold level of risk is not a statutory requirement.

The author next states the Congress never considered business methods as part of the "useful arts" and any argument related to the inherent expandability of the clause is not relevant because businesses were not new at the time that the Constitution was drafted.⁹⁵ Presumably, based on this logic, factories were also not new at this time and therefore all subsequent process innovation during American industrialization would likewise fall outside the scope of patentable subject matter. The author conveniently ignores that the expandability of the clause could encompass orders of magnitude in degrees of distinction rather than just something completely novel. She does admit that this is her "weaker argument" but provides little rationale for why this is the case.⁹⁶

The author's third argument focuses on the historical context in which the term "useful arts" might have been used.⁹⁷ Here the author asserts that the clause generated no controversy at the time of adoption⁹⁸, but as has been previously noted, Jefferson was stridently opposed to the clause and required convincing before acquiescing.⁹⁹ In other words, Jefferson was clearly aware of the inherent dangers lurking in monopolies, but decided to proceed nonetheless, convinced that there would be a net benefit to the public good.¹⁰⁰ The author further allows that "[p]rocesses were always patentable in the United States"¹⁰¹ but goes on to attempt to distinguish BMPs as falling outside of this definition. The author proceeds to conduct a hair splitting exercise of equating the term "useful arts"

at the time of the constitution to what would have been known then as the “mechanical arts” and whose equivalent today would be known as the “technological arts.”¹⁰² The author continues to cite other historical data in support of why business methods are somehow not part of the “technological arts,”¹⁰³ all of which appear to provide little help in arriving at anything that would qualify as “clarity.” In short, her argument based on semantics is much too strained and convoluted to be compelling.

The author’s final argument related to why the founders would have thought that BMPs were abusive starts out with a partial transcript of the Constitutional Convention related to intellectual property.¹⁰⁴ Here the author reasserts that the “uncontroversial” nature of the clause’s adoption shows that business methods were not contemplated, presumably because if they had been, the adoption process would have been controversial indeed.¹⁰⁵ This article has already noted that in fact there was controversy and perhaps it was simply taking care of in the “meeting before the meeting.” The author further supports this claim citing the fact that there was controversy regarding monopolies in general and that a certain Mr. Gerry refused to sign because “under the power over commerce, monopolies may be established.”¹⁰⁶ The author goes on to cite George Mason’s objections to monopolies where he states “[u]nder their own construction of the general clause at the end of the enumerated powers, the Congress may grant monopolies in trade and commerce”¹⁰⁷ Because it is clear that there were serious objections to monopolies in trade the author concludes that any discussion of patent monopoly rights for BMPs would have never passed.¹⁰⁸ Although this may be the author’s most compelling argument, it appears to equate a BMP to what would now be considered a violation of antitrust law. It is certainly a stretch to conclude that a grant on a BMP necessarily leads to complete pricing power over an entire industry (e.g. automobiles or computers)—something that would clearly not be tolerated.

This author, to her credit, has taken on the daunting task of admitting the constitutionality of the patent monopoly on the one hand, and at the same time arguing forcefully as to why it does not apply to BMPs in particular. Although these arguments do not appear to make a compelling distinction, they do nonetheless represent a concerted effort toward identifying the difficulty that lies at the very crux of the problem—namely that it is far easier to coherently argue against the patent regime in general, than it is to argue substantively against BMPs as a special case.

This section has explored the case against BMPs as background information for this article's central thesis, which is that the contra BMPs arguments are not only wrong, but decidedly so. Before making the case as to why the contrarians have it right, it is important to briefly review how the USPTO and Congress responded to the controversy post *State Street*.

D. The USPTO and Congress Respond

The USPTO and Congress apparently both felt compelled to respond to the firestorm post *State Street* and Amazon's suit of BN. The first and most obvious response from the former was the production of a whitepaper that more or less defended its position and outlined a plan for handling the anticipated demand.¹⁰⁹ Here the agency, inter alia, took the opportunity to explain Class 705 (where BMPs fall) and its related sub-classes—apparently to inform the public and as a rudimentary overview.¹¹⁰ It then discusses the relative growth of BMPs post *State Street* by stating “[c]lass 705 has seen strong filing growth in FY 1998 and FY 1999” but this growth only “represented only about 1% of the total patent applications filed at the USPTO in FY 1999.”¹¹¹ Finally, it goes on to outline its hiring and training plan as part of dealing with what it called “resources in transition.”¹¹² As noted supra, the tone of the whitepaper suggests that BMPs had been around since the early days of the republic, however e-commerce was forcing the agency to respond to increased demand; and it was doing so in a prudent fashion—otherwise there was no real need for concern.

Congress likewise got in on the act responding to increased grants of BMPs by the enactment of the American Inventors Protection Act (AIPA) of 1999.¹¹³ The AIPA included a number of provisions and “was designed to harmonize U.S. patent laws with those of Europe and other major trading partners.”¹¹⁴ Most pertinent to this article was Subtitle C, the “First Inventor Defense,” which provided an infringement defense if the alleged infringer could show reduction to practice a year before the effective filing date of the BMP.¹¹⁵ Apparently Congress hoped to mitigate some of the real or perceived damage that BMPs were inflicting on American commerce. More in depth coverage of AIPA is beyond the scope of this article but it suffices to note that both the USPTO and Congress were “feeling some heat.”

This article now turns to making the case that although BMPs legitimately merited review, and hence were not “much to do about nothing,” they certainly are patentable subject matter, meeting both the constitutional and statutory requirements, and not all that dissimilar from patents in other categories.

III. Analysis

This section will first review the case law post *State Street* in order to determine if there is a perceptible trend in CAFC decisions that provides guidance going forward. It will next examine what this article suggests is the essence of the *State Street* holding—namely that there is no such thing as a BMP. Following that is a response to the contra arguments supra, essentially making the case as to why the contrarians have it right by showing that the contra arguments are not sustainable. Finally some practical advice is provided for stakeholders considering either an offensive or defensive posture vis-à-vis BMPs.

A. The Case Law Post State Street

Now that the CAFC has held that BMPs constitute presumptively valid subject matter its subsequent decisions appear to focus (correctly) on patent basics: novelty, non-obviousness and

claim construction.¹¹⁶ Before reviewing selected cases it is imperative to note that, contrary to the conventional wisdom post *State Street*, there has not been an explosion of BMPs or BMP related litigation.¹¹⁷ Out of one million U.S. patents granted five years post *State Street*, only 0.2% were BMPs (patent class 705).¹¹⁸ During this same period 200 BMP cases were filed in federal district courts, of these only a handful reached trial and fewer still resulted in a jury verdict for the patentee.¹¹⁹ The USPTO issuance percentage for BMPs during this period was 10 percent.¹²⁰ In short, the anecdotal evidence indicates that neither the courts nor the USPTO are “rolling over” for prospective BMP patentees.

It is difficult to single out any one reason for the relative dearth of BMPs, but this article suggests that the patent hurdles of novelty and non-obviousness are significant factors. As Judge Newman suggested in *In Re Schrader* when arguing against the BMP exception, most of the prior cases that invoked the exception were decided on grounds of novelty and non-obviousness.¹²¹ As noted supra, in 2001 the CAFC vacated the district court’s grant to Amazon of a preliminary injunction, holding that defendant BN provided a “substantial challenge” to patent validity.¹²² While the CAFC did not invalidate the Amazon patent, its holding was based on evidence that the patent was obvious over the prior art, and not novel.¹²³ In *Wang Laboratories, Inc. v. Am. Online, Inc. and Netscape Communications Corp.*,¹²⁴ the CAFC limited the Wang Internet patent to its specific embodiments, finding non-infringement on the part of the defendants.¹²⁵ Some commentators suggest that this decision is an attempt on the part of the CAFC to rein in the “free for all” environment created by the broad language of *State Street*.¹²⁶ Finally in *MercExchange, LLC v. eBay, Inc.*,¹²⁷ after a \$35 million jury award for the plaintiff,¹²⁸ the district court refused to grant the plaintiff a permanent injunction, based on its “growing concern over the issuance of business method patents”, a decision later reversed by the CAFC.¹²⁹ However, the matter on appeal did not end with the CAFC decision. On May 15, 2006, the Supreme Court vacated the CAFC decision and

remanded it back to the trial court, providing guidance on the four-factor permanent injunction test and indicating that both the district court and the CAFC had it wrong.¹³⁰ The bottom line from the Court's holding is that a patent infringement decision does not automatically lead to a permanent injunction,¹³¹ something that lessens the leverage of patentees in licensing negotiations and presumably allows Internet businesses to continue to function.

Although an exhaustive review of the case law is beyond the scope of this article, it appears that both the data and the decisions post *State Street* indicate that the courts and USPTO are taking a tempered approach to BMPs. As noted supra, some commentators indicate that claim construction narrowing is the likely next step where moderation will reign.¹³² This article suggests that the common law, via statutory interpretation, is all that is required to manage the BMP "explosion" since there is really no such thing as a BMP, a topic addressed next.

B. No Such Thing as a BMP

As noted supra, both the courts and commentators have struggled with defining BMPs.¹³³ The essence of *State Street*, it seems, was a rejection of definitions in favor of the statutory language and the policy rationale that underpins it. If the statutory language is met then a BMP is patentable subject matter, otherwise it is not. In the case of Internet (i.e. software enabled) BMPs, the court indicated that a business method would be patentable subject matter as long as it produced a "useful, concrete, and tangible result."¹³⁴ To determine why the court's choice of language is important it is necessary to explore the "metaphysics" of patentability. This is best done by way of example and by using the constructs of "tangibility and substantiality."¹³⁵ Assume a patent for using water (via gravity) to generate electricity.¹³⁶ Here the inventor has a patent with clearly patentable subject matter despite the fact that he did not invent either water (obviously) or electricity. In terms of a mathematical formula the patent can be depicted as follows:¹³⁷

(1) Gravity + Construction = New Method of Generating Electricity + New Machine

In the above equation the combination of a law of nature (i.e. an abstract idea) and a process for construction has led to both a new method and a new machine.¹³⁸ Now assume a prototypical BMP as defined by the following equation:¹³⁹

(2) Algorithm + Software Design = New method of Billing

Here the equation represents an algorithm (i.e. another abstract idea) in combination with software design (a type of construction) that has led to a new method for billing.¹⁴⁰ Notice that but for the production of a new machine both equations are identical. They both represent a “substantive” advance that was deemed sufficient in *State Street* to constitute patentable subject matter.¹⁴¹ Notice also that the *State Street* court did not ignore “tangibility” altogether. In order for equation (2) to be patentable subject matter it must produce “useful, concrete, and tangible result.” In other words a mere manipulation of an algorithm with software is not patentable subject matter—“tangibility” matters.

Viewed in this light a BMP must meet the requirements that all patents are required to meet. Any attempt to parse differences, when analyzed from a more granular perspective, proves futile—it is an attempt to find a distinction without a difference. In fact, this is the crux of this article’s thesis, the “contrarians” have it right because it is impossible to separate an invention labeled a BMP from any other—all are required to “pass the test” inherent in the statute, and the statute leaves little room for discrimination. That said this article now explores why the contra arguments fail to make the case.

C. Making the Case: Why the Contra Arguments Fail

This section will address two of the four arguments against BMPs discussed supra. First the argument that BMPs are generally of lesser quality is dissected. Next the argument that BMPs are less economically efficient and do not warrant monopoly rights as compared to the constitutional mandate of a public quid pro quo is explored. For the purposes of this article the rhetorical and

consistency (i.e. constitutional) arguments have already been countered sufficiently in the previous discussion. The more substantive arguments, at least on their face and from the perspective of the “majority” of early commentators, are those of quality and efficiency.

1. BMP Quality: Numbers are Stubborn Things

As noted supra, BMPs are often attacked on quality grounds because they cite less prior art, are overbroad as manifested by making a larger number for claims, and are assigned to a greater number of patent classes¹⁴²—essentially the argument is that they are less likely to be found valid if challenged.¹⁴³ However, these assertions are generally unsupported by empirical data, and are therefore suspect. Several empirical studies have challenged the validity of these claims¹⁴⁴ and the results from one in particular are summarized below.¹⁴⁵

Allison and Tiller looked at the quality of Internet BMPs (circa 2003) using the following five indicators: (1) the number of prior art references; (2) type of prior art references; (3) number of claims within the patents; (4) number of inventors; and (5) time spent in the USPTO before issuance.¹⁴⁶ The results, summarized for the sake of brevity, were as follows: first Internet BMPs had more prior art references (both patent and non patent) than patents in general; second Internet BMPs cited non patent type references of a similar quality as the “average” patent; third Internet BMPs did have significantly more claims than patents in general; fourth Internet BMPs had significantly more inventors; and finally Internet BMPs spent more time in examination than initially expected, with no evidence that less time was spent than with other patents or that their inventors invested less resources to obtain them.¹⁴⁷

The summary above does not do justice to the rigorous methodology and breadth of the study. Suffice it to say that the statistical rigor of the authors’ approach does not appear to have been challenged in the literature. The authors conclude by indicating that no evidence was found that BMPs were of lesser quality than other patents and hint at the slight possibility that the opposite is

true.¹⁴⁸ The only allegation that appears to be warranted is that BMPs contain more claims than other patents, but this in and of itself is not conclusive evidence either for or against the quality argument, in light of the authors' analysis taken as a whole. More significant perhaps is that BMPs spent at least an equal amount of time in examination as other patents, contrary to the allegation that BMPs were issued by the USPTO "willy nilly." Other studies have produced analogous results.¹⁴⁹

Although these studies are not dispositive of the quality issue, they do appear to partially debunk the BMP quality myth. This article next examines the economic efficiency argument and addresses the question regarding whether the public is getting a fair return on its monopoly grant.

2. BMPs & Economic Efficiency

This section will review the growth of e-commerce post *State Street* as an indicator of whether or not BMPs have impeded innovation. It will also argue against the proposition that Internet businesses do not require incentives for investment by reviewing the behavior of venture capitalists with respect to Internet patents in general, and by analogy to BMPs, since many of the latter are Internet based. It may be tempting, in hindsight for example, to consider it a "no brainer" that the consuming masses would want to purchase books online, but if this opportunity was so obvious why did it take a relatively unknown entrepreneur to launch this venture?¹⁵⁰

In a recent survey (circa fall 2006) the number of adult activities performed most frequently on the Internet are emailing (70.5%), reading news (40.2%) and shopping (34.2%).¹⁵¹ This same survey found that the growth of purchases for personal use increased by 57.7% and those for business use increased 51.5%.¹⁵² In May 2006, the U.S. Census Bureau reported that "retail e-commerce sales for the first quarter of 2006 . . . were 25.2 billion" a year over year increase of 7%.¹⁵³ Another survey indicates that online purchasers will increase their online spending 41% in 2007.¹⁵⁴ What do these numbers have to do with BMPs? The short answer to this question is nothing. As noted supra, existing econometrics do now allow for correlations between IP investments (i.e.

growth in BMPs) and economic growth in general. At best, the numbers anecdotally indicate that the *State Street* decision did not devastate e-commerce growth, but the degree to which it helped or hurt is purely speculative. Although, at some level of abstraction it is difficult to conclude that innovation suffered—witness the meteoric rise of Google, which occurred after it starting selling ads in 2000,¹⁵⁵ two years after *State Street*.

Far more interesting than to speculate on whether patents may have an impact on the structure of an entire industry (e.g. software or e-commerce) is to consider the impact that a patent-centric strategy may have on an individual firm.¹⁵⁶ There is some evidence that venture capitalists (VC's) place a premium on software start-ups with a “robust patent portfolio.”¹⁵⁷ Presumably, since most Internet BMPs are software centric, this evidence partially supports the proposition that VC's want IP rights protection in business methods as well. The obvious question, given that some commentators have argued that businesses do not require incentives to innovate,¹⁵⁸ is why do VC's favor it? Exploring this question in depth is beyond the scope of this article but it nonetheless merits some consideration.

Assume that Jeff Bezos, the founder of Amazon, approached a number VC firms with the “crazy” idea of selling books online, how responsive might they have been? As it turns out, the leading VC firm in the Internet “space” was not very responsive at all.¹⁵⁹ Although Bezos eventually raised money from family and friends,¹⁶⁰ the question remains how likely would this VC firm have been to fund Amazon post the “one-click” patent? Although by this time Amazon was already an established brand, and not likely in need of capital—assume that at the time it was one of many emerging start ups—and then answer the question. It seems that an established (but nascent) e-commerce company with a “patent portfolio” would have been far more likely to attract capital than one without said portfolio.

VC's are in the business of taking calculated risks in the hope of significant returns. They often bet on many ideas that "push the envelope" of innovation, never certain which one might "hit." The central question is the following: how of much of this investment would be made sans IP protection? And how much of the innovation post World War II would have been made without the large VC cash infusions that were often required? Now fast forward to a time wherein the digital universe allows for the nearly instantaneous copying, through reverse engineering or other more pernicious means, and ask the same question. Granted not all the required IP protection comes in the form of patents, and presumably far less in the case of BMPs, but the central thrust of the question remains the same.

Is it plausible to assume that the patent monopoly would exclude the interests of an industry whose core mission is to drive innovation and apply only to the "mom and pop" investments that funded Amazon? The intent is not to denigrate the latter but rather to highlight what many commentators often overlook, the fact that innovation, more often than not, requires significant capital, and capital often requires a degree of protection before it is forthcoming. This article suggests that to the degree VC firms prefer funding e-commerce companies with patent portfolios then at least a plausible argument can be made that BMPs contributed to e-commerce growth. But whether or not BMPs impede or enhance innovation, *State Street*, and the decisions subsequent to it, make it clear that they are here to stay. The next section considers some practical advice for BMP stakeholders.

D. Stakeholder Advice Now that BMPs are here to Stay

This section takes a brief look at what stakeholders should expect now that the validity of BMPs appears to be settled law. First and foremost it seems clear that a patent monopoly for a business method can prove financially rewarding for the holder. Amazon certainly appears to have benefited from its "one-click" patent despite the fact that it settled with BN. The patent itself has

never been invalidated.¹⁶¹ Arguably, Amazon not only received a substantial amount of free press, but also potentially slowed down BN's own online initiative. Also, although MercExchange did not prevail in obtaining a preliminary injunction against eBay, it nonetheless obtained a \$35 million dollar infringement settlement,¹⁶² perhaps substantially more than it might have via licensing.

The above are obviously just a few anecdotal data points, but coupled with what appears to be enhanced interest on the part of VC's for companies with a patent portfolio, BMPs start to look like an interesting business proposition. That said, patent prosecution is expensive and all the statutory hurdles must still be crossed. The economic viability of BMPs does in fact raise an interesting consideration that has gotten little attention in the literature—namely, for which employees should an employer, under an employment contract, insist that patents developed by said employees be automatically assigned to the firm? Today this sort of employment agreement is standard operating procedure for engineers, software developers, and research scientists, but not the case for employees in marketing, purchasing, human resources or other non-technical disciplines. Depending on the type of business, but certainly for most Internet related businesses; it would be prudent for companies to rethink their general-purpose employment agreements in order to include patent assignment as a standard clause.

In addition to offensive use of BMPs there is reason to believe that Internet businesses should be much more vigilant with respect to defensives uses. A firm with a BMP, especially one targeted at its core value proposition, can feel more confident in its “go to market” strategy knowing that a competitor is far less likely to preempt them. It also behooves these organizations to pay closer attention to published BMPs in order to avoid potential infringement actions down the road. As IP continues to assume a more and more critical role in the evolution of the Internet, being actively engaged in its management will likely be time and money well spent.

IV. Conclusion

This article has looked at arguments for and against BMPs as well as landmark cases that have helped define their jurisprudence. The essence of the argument in favor of BMPs is that they are presumptively valid subject matter under 35 U.S.C. §101, indistinguishable from other types of process patents, and therefore the CAFC got it right in *State Street*. Although the *State Street* holding is clearly a victory for BMP proponents, it is likewise clear from subsequent cases, and from the performance of the USPTO, that BMPs will get no more, and no less, favorable treatment than other patents—all of the statutory requirements must still be met. This is as it should be. The statutes and the common law have once again proven sufficient to deal effectively with yet another technological innovation, balancing protection for the inventor and providing the required *quid pro quo* for the public.

¹ Jay Dratler, Jr., *Does Lord Darcy Yet Live? The Case Against Software and Business-Method Patents*, 43 Santa Clara L. Rev. 823, 829 (2003)

² *Id.*

³ *Id.*

⁴ Greg S. Fine, *To Issue or not to Issue: Analysis of the Business Method Patent Controversy on the Internet*, 42 B.C. L. Rev. 1195, 1206 (2001)

⁵ John R. Allison, Emerson H. Tiller, *The Business Method Patent Myth*, Berkeley Tech. L.J. 987, 992 (2003)

⁶ Donald R. Dunner, *Business Method Patents: Far From a Settled Issue*, 3 Sedona Conf. J. 57, 66 (2002)

⁷ 35 U.S.C. § 101 (2006).

⁸ 35 U.S.C. § 103 (2006).

⁹ *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998)

¹⁰ *Amazon.com v. Barnesandnoble.com* 239 F.3d 1343 (Fed. Cir. 2001).

¹¹ Kevin Michael Lemley, *Just Turn North on State Street and Then Follow the Signs Given by the Federal Circuit: a Sophisticated Approach to the Patentability of Computerized Business Methods*, 8 J. Tech. L. & Pol'y 1, 4 (2003)

¹² See USPTO White Paper, 2000 at www.uspto.gov/web/menu/busmethp/

¹³ John R. Allison and Starling D. Hunter, *On the Feasibility of Improving Patent Quality One Technology at a Time: The Case of Business Methods*, 21 Berkeley Tech. L.J. 729, 765 (2006)

¹⁴ *Id.* at 767

¹⁵ *Id.*

¹⁶ USPTO White Paper, 2000 at www.uspto.gov/web/menu/busmethp/, 1, 2

¹⁷ *Id.* at 3

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.* at 2

²¹ *Id.* at 3

²² *Id.* at 4

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- ²³ See Andrea Lynn Evensen, "Don't Let the Sun Go Down on Me:" An In-Depth Look at Opportunistic Business Method Patent Licensing and a Proposed Solution to Allow Small-Defendant Business Method Users to Sing a Happier Tune, 37 J. Marshall L. Rev. 1359 (2004); Kevin Michael Lemley, *Just Turn North on State Street and Then Follow the Signs Given by the Federal Circuit: a Sophisticated Approach to the Patentability of Computerized Business Methods*, 8 J. Tech. L. & Pol'y 1 (2003)
- ²⁴ Andrea Lynn Evensen, "Don't Let the Sun Go Down on Me:" An In-Depth Look at Opportunistic Business Method Patent Licensing and a Proposed Solution to Allow Small-Defendant Business Method Users to Sing a Happier Tune, 37 J. Marshall L. Rev. 1359, 1363 (2004);
- ²⁵ Kevin Michael Lemley, *Just Turn North on State Street and Then Follow the Signs Given by the Federal Circuit: a Sophisticated Approach to the Patentability of Computerized Business Methods*, 8 J. Tech. L. & Pol'y 1, 3 (2003)
- ²⁶ *Id.* at 3-4
- ²⁷ See John M. Conley, *The International Law of Business Method Patents*, 88 Economic Review 15, 19 (2003); *Diamond v. Diehr*, 450 U.S. 175 (1981)
- ²⁸ *Id.*
- ²⁹ *Id.*
- ³⁰ *Id.*
- ³¹ *Id.* at 19-20
- ³² *Id.* at 20
- ³³ *Id.*
- ³⁴ *Id.* at 21-22
- ³⁵ *Id.* at 22
- ³⁶ *Id.*
- ³⁷ *Id.*
- ³⁸ *Id.* at 16
- ³⁹ *Amazon.com v. Barnesandnoble.com*, 239 F.3d 1343 (Fed. Cir. 2001).
- ⁴⁰ *AT&T v. Excel Communications, Inc.*, 172 F.3d 1352, 1358 (Fed. Cir. 1999).
- ⁴¹ Kevin Michael Lemley, *Just Turn North on State Street and Then Follow the Signs Given by the Federal Circuit: a Sophisticated Approach to the Patentability of Computerized Business Methods*, 8 J. Tech. L. & Pol'y 1, 8 (2003)
- ⁴² John M. Conley, *The International Law of Business Method Patents*, 88 Economic Review 15, 22 (2003)
- ⁴³ 35 U.S.C. § 101 (2006).
- ⁴⁴ Kevin Michael Lemley, *Just Turn North on State Street and Then Follow the Signs Given by the Federal Circuit: a Sophisticated Approach to the Patentability of Computerized Business Methods*, 8 J. Tech. L. & Pol'y 1, 8 (2003)
- ⁴⁵ *Id.*
- ⁴⁶ John M. Conley, *The International Law of Business Method Patents*, 88 Economic Review 15, 22 (2003)
- ⁴⁷ *Id.* at 22-23
- ⁴⁸ 35 U.S.C. §§ 102, 103 (2006).
- ⁴⁹ Robert C. Kain, *Business Method Patents -- Defining Your Viewpoints and Your Rights*, 80-APR Fla. B.J. 40 (2006)
- ⁵⁰ *Id.*
- ⁵¹ U.S. Patent No. 5,960,411, Method and System for Placing a Purchase Order via a Communications Network.
- ⁵² *Id.*
- ⁵³ Kain, *supra* n. 49
- ⁵⁴ *Id.*
- ⁵⁵ Linda E. Alcorn, *The Value Of Business Method Patents*, 709 PLI/Pat 425, 431 (2002) (quoting Williams C., "Patent This!", ABA Journal, March, 2001)
- ⁵⁶ *Id.* (paraphrasing law professor Pamela Samuelson of the University of California, Berkeley in Williams C., "Patent This!", ABA Journal, March, 2001)
- ⁵⁷ Kain, *supra* n. 49
- ⁵⁸ See James Gleick, *Chaos: Making a New Science*, (Penguin 1988)
- ⁵⁹ See James Gleick, *Patently Absurd*, <http://www.around.com/patent.html>
- ⁶⁰ *Id.*
- ⁶¹ *Diamond v. Chakrabavty*, 447 U.S. 303 (1980)
- ⁶² John R. Allison, Emerson H. Tiller, *The Business Method Patent Myth*, 18 Berkeley Tech. L.J. 987, 1005 (2003)
- ⁶³ *Id.*
- ⁶⁴ See Greg S. Fine, *To Issue or not to Issue: Analysis of the Business Method Patent Controversy on the Internet*, 42 B.C. L. Rev. 1195 (2001) (using an analytical framework consisting of categories 2-4).
- ⁶⁵ *Id.*
- ⁶⁶ Allison, *supra* n. 62, at 1011

⁶⁷ *Id.*
⁶⁸ *Id.* at 1012
⁶⁹ Fine, *supra* n. 64, at 1201-1202
⁷⁰ *Id.*
⁷¹ Allison, *supra* n. 62, at 1008-1009
⁷² *Id.* at 987
⁷³ *Id.* at 996
⁷⁴ *Id.* at 993 (apparently, despite the controversy neither the Priceline.com or the Amazon patent ever have been invalidated)
⁷⁵ Nari Lee, *Patent Eligible Subject Matter Reconfiguration and the Emergence of Proprietary Norms: The Patent Eligibility of Business Methods*, 45 IDEA 321, 325 (2005)
⁷⁶ *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980)
⁷⁷ Lee, *supra* n. 75, at 325
⁷⁸ Conley, *supra* n. 27, at 22
⁷⁹ Starling Hunter, *Have Business Method Patents Gotten a Bum Rap? Some Empirical Evidence*, Paper 182, 1 (2003) <http://ebusiness.mit.edu>
⁸⁰ See John R. Allison, Emerson H. Tiller, *The Business Method Patent Myth*, 18 Berkeley Tech. L.J. 987 (2003); Starling Hunter, *Have Business Method Patents Gotten a Bum Rap? Some Empirical Evidence*, Paper 182, 1 (2003) <http://ebusiness.mit.edu>; John R. Allison and Starling D. Hunter, *On the Feasibility of Improving Patent Quality One Technology at a Time: The Case of Business Methods*, 21 Berkeley Tech. L.J. 729 (2006) (e.g. Allison and Tiller document that the BMPs evaluated cited more prior art than other patents and had more inventors)
⁸¹ Dratler, *supra* n. 1, at 829
⁸² Fine, *supra* n. 64, at 1204
⁸³ *Id.*
⁸⁴ Rochelle Cooper Dreyfuss, *Are Business Method Patents Bad for Business*, NY 16 Santa Clara Computer & High Tech. L.J. 263, 275-276 (2000)
⁸⁵ *Id.*
⁸⁶ See generally Dratler *supra* n. 1
⁸⁷ Dratler, *supra* n. 1, at 840
⁸⁸ *Id.* at 844-848
⁸⁹ *Id.* at 874-874
⁹⁰ *Id.* at 829
⁹¹ 35 U.S.C. §§ 101, 102, 103 (2006).
⁹² Malla Pollack, *The Multiple Unconstitutionality of Business Method Patents: Common Sense, Congressional Consideration, and Constitutional History*, 28 Rutgers Computer & Tech. L.J. 61 (2002)
⁹³ *Id.* at 76
⁹⁴ *Id.*
⁹⁵ *Id.* at 77-78
⁹⁶ *Id.*
⁹⁷ *Id.* at 81-91
⁹⁸ *Id.* at 82
⁹⁹ Dratler, *supra* n. 1
¹⁰⁰ *Id.*
¹⁰¹ Pollack, *supra* n. 92, at 86
¹⁰² *Id.* at 86-90
¹⁰³ *Id.* at 90-108
¹⁰⁴ *Id.* at 108-112
¹⁰⁵ *Id.*
¹⁰⁶ *Id.* at 112
¹⁰⁷ *Id.* at 113
¹⁰⁸ *Id.* at 117-118
¹⁰⁹ See USPTO White Paper, *supra* n. 16
¹¹⁰ *Id.*
¹¹¹ *Id.*
¹¹² *Id.*

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- ¹¹⁴ *Id.*
- ¹¹⁵ *Id.*
- ¹¹⁶ See Nicholas A. Smith, *Business Method Patents and Their Limits: Justifications, History, and the Emergence of a Claim Construction Jurisprudence*, 9 Mich. Telecomm. & Tech. L. Rev. 171 (2002)
- ¹¹⁷ See Cecilia O. Lofters and Kurt M. Maschoff, *Financial Services and Business Method Patents in the Courts—an Update on Recent Litigation—PowerPoint Slides*, 803 PLI/Pat 33 (2004)
- ¹¹⁸ *Id.* at 42
- ¹¹⁹ *Id.*
- ¹²⁰ *Id.*
- ¹²¹ Conley, *supra* n. 27 at 20
- ¹²² Lofters, *supra* n. 117, at 44
- ¹²³ Smith, *supra* n. 116, at 200-201
- ¹²⁴ Wang Laboratories, Inc. v. Am. Online, Inc. and Netscape Communications Corp., 197 F.3d 1377 (Fed. Cir. 1999).
- ¹²⁵ Smith, *supra* n. 116, at 202
- ¹²⁶ *Id.*
- ¹²⁷ MercExchange, LLC v. eBay, Inc., 401 F.3d 1323, 1339 (Fed. Cir. 2005)
- ¹²⁸ Lofters, *supra* n. 117, at 47
- ¹²⁹ Robert C. Kain, *Business Method Patents—Defining Your Viewpoints and Your Rights*, 80-APR Fla. B.J. 40, 41 (2006)
- ¹³⁰ David B. Conrad, *Mining the Patent Thicket: The Supreme Court's Rejection of the Automatic Injunction Rule in eBay V. MercExchange*, 26 Rev. Litig. 119, 131 (2007)
- ¹³¹ See generally *Id.*
- ¹³² See generally Smith, *supra* n. 116
- ¹³³ Allison, *supra* n. 13, at 767
- ¹³⁴ Conley, *supra* n. 27, at 22
- ¹³⁵ See generally Lemley, *supra* n. 41
- ¹³⁶ *Id.* at 17, See also United States patent number 6445078
- ¹³⁷ *Id.*
- ¹³⁸ *Id.*
- ¹³⁹ *Id.*
- ¹⁴⁰ *Id.*
- ¹⁴¹ *Id.*
- ¹⁴² See Hunter, *supra* n. 79
- ¹⁴³ Allison, *supra* n. 62, at 996
- ¹⁴⁴ See generally Allison, *supra* n. 62 and Hunter, *supra* n. 79
- ¹⁴⁵ See generally Allison, *supra* n. 62
- ¹⁴⁶ *Id.* at 998-1002
- ¹⁴⁷ *Id.* at 1003-1005
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- ¹⁴⁹ See Hunter, *supra* n. 79
- ¹⁵⁰ See generally Robert Spector, *Amazon.com Get Big Fast: The astounding rise and uncertain future of the e-commerce giant*, (Harper-Collins 2002)
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- ¹⁵³ Strategic eCommerce Solutions, *eCommerce Growth*, http://www.sescommerce.com/pages/main_page.asp?nID=46 (citing a 2006 U.S. Census Bureau of the Department of Commerce report) (last visited April 14, 2007)
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¹⁵⁷ *Id.*

¹⁵⁸ Dratler, *supra* n. 87

¹⁵⁹ Spector, *supra* n. 149, at 99

¹⁶⁰ See generally *Id.*

¹⁶¹ Smith, *supra* n. 116, at 201

¹⁶² Lofters, *supra* n. 117, at 47