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Revisiting Business Methods: Should They Remain Patentable?

I. Introduction:

Business Methods (hereinafter BMs) are patentable due to the controversial *State Street* decision. *State Street* and subsequent cases did not address the practical and policy perspectives that are relevant in considering the decision to grant BMs as a patentable category. This is still open for debate, as the Supreme Court has not yet ruled on the patentability of BMs nor software. This is important because precedent has broadened the category of patentable BMs by creating a minimum abstract idea standard. Additionally, The U.S. Patent Office has continued to issue business method patents (hereinafter bmPs) that could probably be considered abstract ideas, and has been churning out bmPs at an alarmingly high rate. Congressional response has been limited, and parties might still be forced to challenge the validity of bmPs with substantially high litigation costs. Since bmPs enjoy a presumption of validity, challengers have the burden of production and proof. In this paper, I am suggesting that BMs, or methods of doing business, should at least be re-examined from a practical and policy perspective. I conclude with two recommendations. The broader recommendation is that BMs should not be considered patentable. The narrower recommendation is that BMs should require patent applicants to prove both patentability and novelty, based on a presumption against both.

Part II discusses BMs as a patentable subject category based on court precedent and defines BMs as used in this paper. Part II A discusses the expansion of the patentable categories to include BMs as a type of process by court precedent. *State Street* held BMs are categorically patentable as a type of process. Software and financial calculations can “transform” numbers into a useful, tangible result to satisfy the MOT Test. The Supreme Court decision in *Bilski v. Kappos* held that abstract ideas can never be patented, and a BM embodies an abstract idea if it is a well known industrial practice, despite a particular application to a specific economic market. Practically speaking, the *Bilski* decision did not limit the scope of patentable BMs. The decision itself is questionable, since at least four Justices concurred that methods of doing business should not be patentable. Supreme Court precedent had already held abstract ideas to be not patentable, since they embody the very ideas needed to innovate. Even the non-determinative MOT Test is extremely broad. Patent examiners face real difficulties in spotting abstract ideas because there is no bright line rule.

Part II B defines BMs and discusses some real world examples of issued bmPs. When discussing BMs, we are concerned about methods that are claimed in bmPs, and where the invention is mainly a commercial strategy. Software bmPs are included. Of particular relevance is “Class 705” patents, which consist of methods for performing data processing or calculations. These include functions directed towards managing a corporation or price calculation. Some notable bmPs are discussed because they likely are abstract ideas, yet still are covered by patent. Examples include patents for the method of “upselling” in a restaurant, a method for promoting mattress sales, and even a method describing the common real estate industry method of flipping indebted property and the required formulas. These are a tribute to the central notion of the paper that BMs should not be patentable because there is the potential for abstract ideas to issue as patents, which should never be patentable.

Part III discusses the real threats that bmPs present to the patent system. Part III A discussed issues presented in U.S. Patent and Trademark Office (hereinafter USPTO) practice, the official regulatory agency of the patent system. The USPTO could probably continue to grant low quality bmPs similar to the examples discussed in Part II because it has been steadfast in its prosecution procedure that remains substantially unaffected by *Bilski*. USPTO statistics

from the past two years indicate increased applications for Class 705 BMs, and a rate of issuing patents that has nearly quadrupled compared to previous years. The USPTO continues to face a backlogged system, since it takes about three years to grant a patent. Additionally, the application system encourages broad claims and patent examiners might have difficulty researching prior art. Part III B considers Congressional consideration of BMs. The America Invents Act did not change patentable subject categories. Congress has provided a limited defense available to those who have used BMs in commerce, as well as some other remedies discussed in Part III C. Part III C discusses the difficulties faced in challenging bmPs that have already been issued. Issued patents are presumed valid, so the burden is on the challenger to prove invalidity. Congress has provided a post-issuance remedy within the USPTO that might alleviate some major litigation costs, but it probably is not enough because discovery alone often costs hundreds of thousands of dollars.

Part IV discusses the policy rationale of patent law. The ultimate goal is to promote innovation with a patent incentive. This is important in industries requiring high investments in order to innovate and where inventions are easily copied by “free-riders.” But BMs generally do not require direct investment costs because they often flow naturally from normal business or are a byproduct of the business need to create sustainable competitive advantages. Even if BMs do require investment costs, these are generally low compared to other inventions, since BMs do not require costs which are typical to physical inventions, such as producing physical prototypes. BMs are not easily copied by free-riders because despite being practiced in public, they are non-informing uses. Free-riders cannot figure out the precise steps of a method from only viewing the end result. Software implemented BMs can also be protected by Federal and State laws. Even if a BM was easy to copy, the value of a BM is not easily replicated because the value is in the organizational implementation. If a market provides incentives that can spur innovation without patent rights, the patent as an incentive rationale is weakened because other incentives can substitute as an incentive. BMs target achieving commercial gains, thus there is always a need to innovate better BMs.

Part IV also addresses the costs society incurs as a result of granting bmPs. Patents by their nature have anti-competitive effects, these are most alarming with bmPs because they can be the basis for an unfair advantage if they should be invalid. Society also suffers because negotiation failures associated with licensing bmPs will lead to costly and resource consuming litigation, tying up the court system and forcing courts to get involved in what are essentially failed bargaining tactics. *eBay v. MercExchange* is discussed as an excellent example of this concern.

Finally, Part V concludes with two recommendations. The first is broad: the requirement of patentable subject matter should perform a gatekeeper role for BMs and should categorically preclude them from patent. The traditional policy concerns of patent law do not justify granting this monopoly. By precluding the patentability of BMs under the current patent system, it might force Congress to evaluate the policy concerns and potentially create a sui generis system for protecting patents. The second recommendation is narrower, and proposes a rebuttable presumption that BMs are not patentable and are not novel, unless the patent applicant proves otherwise in the USPTO.

II. Business Methods are Patentable: Court Rules, and Defining Business Methods

A. Current Court Rules on the Patentability of Business Methods;

A patent grants the right to exclude others from making, using, or selling the claimed invention, but the Patent Act limits patentable inventions to certain categories.¹ An inventor receives patent rights for the “claimed” invention in the patent application.² Claims contain “limitations” describing the components of the invention, which in turn define the scope of the right to exclude others.³ To meet the threshold requirement for patentability, an invention must fall within a patentable subject category. There is no explicit definition of a BM in the Patent Act. Nonetheless, Courts have determined that BMs are a patentable process.⁴ The courts broadly interpret statutorily defined categories in light of Congressional intent to cover new and unprecedented technology.⁵ In fact, the patentable categories have routinely been expanded by courts in light of technological advancements, and most man-made inventions are patentable.⁶

Federal Circuit Courts have used a “machine or transformation test” (MOT Test) in analyzing a process or method as patentable subject matter. The MOT Test generally requires a method or process to either: (a) be applied for use in an overall process (i.e. where the abstract idea is not specifically claimed, but rather a component of the overall process)⁷ or (b) the method must transform an article into a different state or thing.⁸ The MOT Test is particularly useful in determining the patentability of methods which employ a math equation, law of nature, or an abstract idea; because if it passes the MOT Test the claimed method likely is patentable.

In the groundbreaking *State Street v. Signature Financial* decision, the court held that both BMs and software are not categorically excluded from patent.⁹ The *State Street* BM, dubbed “Hub and Spoke,” used software to manage individual mutual funds (the “spokes”) by calculating their real time value based on the total worth of the central “hub.”¹⁰ The second prong of the MOT Test was satisfied because the system applied math formulas to raw data input of dollars and cents which “transformed” it into fixed share prices.¹¹ Thus, the MOT Test is broad because a BM can be considered transformative by simply applying mathematical formulas to raw data input which transforms the information for a new use.

¹ *E.g.*, 35 U.S.C. §§ 100 - 329 (2012).

² *See, e.g.*, *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996) (explaining that in an infringement analysis, courts construe claims to determine if an alleged infringer has made, used, or sold the patented invention).

³ *Id.*

⁴ *E.g.*, 35 U.S.C. § 101 (2012) (defining process as a patentable category); *and* 35 U.S.C. § 100(b) (2012) (“The term ‘process’ means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.”).

⁵ *See, e.g.*, *J.E.M Ag Supply, Inc. v. Pioneer Hi-Bred Intern., Inc.*, 534 U.S. 124, 135 (2001) (holding that developed plant breeds are patentable subject category despite being an unforeseeable technological advancement because “§ 101 ... is a dynamic provision designed to encompass new and unforeseen inventions.”).

⁶ *See, e.g.*, *Bilski v. Kappos*, 130 S.Ct. 3218, 3248 (2010) (discussing that anything man made is generally patentable, but subject to fulfillment of the other patentability requirements in the Patent Act).

⁷ *See, e.g.*, *Diamond v. Diehr*, 450 U.S. 175 (1981) (holding that a process for curing synthetic rubber is a patentable process even though the method used a mathematical equation, it was only one part of a complex process and the patent did not claim the exclusive rights to the equation).

⁸ *See Bilski*, 130 S.Ct. at 3225.

⁹ *See State St. Bank & Trust Co. v. Signature Fin. Grp. Inc.*, 149 F.3d 1368, 1372 (Fed. Cir. 1998).

¹⁰ *See State Street Bank & Trust Co.*, 149 F.3d at 1370.

¹¹ *Id.* at 1373 (“[T]he transformation of data ... constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete and tangible result’ - a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.”).

Bilski v. Kappos is the most recent Supreme Court decision exploring Business Methods.¹² It narrowly held the MOT Test as neither exclusive nor determinative, so a BM can still be patentable even if it does not pass the MOT Test.¹³ In *Bilski*, a hedge fund management BM was not patentable because it was an embodiment of an abstract idea – the patent applicant claimed the rights to the concept of hedging risk as applied to energy markets.¹⁴ The BM explained how buyers and sellers of commodities in the energy market could hedge against price risk by “initiating a series of transactions” between themselves at a fixed rate based on historical averages.¹⁵ This method of hedging risk by purchasing at fixed prices is a generally known concept in economics, and the applicant was denied patent because an abstract idea does not become patentable when it is limited to a specific market context.¹⁶ Practically speaking, *Bilski* did not limit the scope of patentable BMs, but it may have expanded their patentability. Since the MOT Test is no longer exclusive, courts and the USPTO could arguably use an abstract idea determination as the lowest threshold of patentability for BMs. As discussed later, the USPTO has not substantially changed its analysis of BM patent applications in response to *Bilski*.¹⁷

The laws of nature, natural phenomenon, math formulas, and abstract ideas¹⁸ have been excluded from patentability because these are the building blocks of the inventive process, the basic ideas required to innovate.¹⁹ For example, Newton’s discovery of gravity and Einstein’s theory of relativity are not patentable.²⁰ For BMs, abstract ideas should exclude from patentability those common economic principles or strategies that are required to compete, like the method for managing and detecting risk held to be unpatentable in *Bilski*.

In the context of Patent Office examination of a patent, the abstract idea concept presents special difficulties for patent examiners. Some abstract ideas might slip through the cracks during examination and become patented.²¹ First, the nature of the concept cannot be specifically defined,²² but it is important in determining whether a BM is patentable as the lowest threshold of patentability. Further, patent examiners are generally scientists and engineers, but neither economists nor business finance majors, so examiners may not be well educated to detect common economic or industry practices.²³ However, the USPTO has acknowledged this fact and has extensively trained examiners to make them better suited for this task, but whether or not it has been enough to deal with the growing concern of bmPs is still up for debate.²⁴ The

¹² See *Bilski*, 130 S.Ct. 3218.

¹³ *Id.* at 3221.

¹⁴ *Id.* at 3229.

¹⁵ *Id.* at 3224.

¹⁶ *Id.* at 3222.

¹⁷ See *infra*, Part III.A.

¹⁸ Hereinafter collectively referred to as abstract ideas or an abstract idea.

¹⁹ See, e.g., *Gottschalk v. Benson*, 409 U.S. 63, 65 (1972) (“[T]hey are the basic tools of scientific and technological work.”) (denying patent for software implemented method of converting binary-coded-decimals into pure binary numbers because claimed mathematical formula); *Parker v. Flook*, 437 U.S. 584 (1978) (holding not patentable a method for determining alarm limits because claims were over a mathematical formula, and post solution activity does not make a formula patentable).

²⁰ *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980), quoted in *Diamond v. Diehr*, 450 U.S. 175 (1981)

²¹ See *infra*, Part II.B. (showing that this has been true when we look at bmPs that have been recently issued).

²² *But cf. Gottschalk*, 409 U.S. 65 (quoting *Le Roy v. Tatham*, 55 U.S. 156, 175 (1852)) (“A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented...”).

²³ See U.S. PATENT AND TRADEMARK OFFICE, PATENT EXAMINER POSITIONS, QUALIFICATION REQUIREMENTS (Nov. 16, 2003), <http://www.uspto.gov/web/offices/pac/exam.htm#req> (requiring generally undergraduate degrees in science or engineering).

²⁴ See *infra*, Part III.A.

USPTO and courts still are faced with the difficult task to determine whether BMs are really the embodiment of abstract ideas.

As mentioned, courts have expanded the definitions of patentable categories to cover new technology, but bmPs raise particular concerns. First, the Supreme Court has never specifically ruled on whether or not BMs are a patentable subject category, and has stated that bmPs are of “suspect validity.”²⁵ In *Bilski* itself, four Supreme Court Justices sided with Justice Stevens’ concurring opinion that BMs should not be patentable at all.²⁶ Additionally, few, if any, empirical studies have been examined by Congress and the underlying policy concerns of the patent system overall have not been balanced.²⁷ As Professor Dreyfuss mentions, it seems as if once a new technology is created, it is assumed that someone should have the right to capture that value through the expansion of intellectual property laws.²⁸ This assumption is inappropriate because it disregards the underlying policies of patent law.²⁹ A careful balancing of the rights of the individual inventor against the rights of society in general should be required.³⁰ Admittedly, many courts in dicta have expressed a preference that BMs be analyzed under the additional requirements of the Patent Act, like novelty, non-obviousness and utility.³¹ However, whether BMs are a patentable category is a threshold analysis that has remained incomplete from both a practical and policy standpoint.

B. Defining Business Methods: Some Examples.

Generally stated as broadly as possible, Business Methods (BMs) are processes (i.e. a series of steps) that are mainly a commercial or market-based strategy.³² They describe the methods of doing business. A bmP claims the patent rights over a BM, and are typically Class 705 filings within the USPTO, which includes software applications.³³ BmPs generally seek to accomplish one of two commercial goals achieved through improving financial techniques: reducing transaction costs or increasing productivity levels.³⁴ Note that bmPs utilizing computer software are generally included in this definition.

For both comparison and purposes of this paper, BMs do not include those processes that are applied to physical objects or used as part of a physical machine, with the exception of

²⁵ *Bilski v. Kappos*, 130 S.Ct. 3218, 3229 (2010) (citing *eBay Inc. v. MercExch., L.L.C.*, 547 U.S. 388, 397 (2006) (Kennedy, J., concurring)).

²⁶ *Id.* at 3231 (Stevens, J., concurring) (“The wiser course would have been to hold that petitioners’ method is not a “process” because it describes only a general method of engaging in business transactions—and business methods are not patentable. More precisely, although a process is not patent-ineligible simply because it is useful for conducting business, a claim that merely describes a method of doing business does not qualify as a “process” ...”).

²⁷ BRONWYN H. HALL, *BUSINESS METHOD PATENTS, INNOVATION, AND POLICY* 9 (2003) [hereinafter HALL, *BUSINESS METHOD PATENTS*] (summarizing much of the research on bmPs and scholar’s view on the subject).

²⁸ Rochelle Cooper Dreyfuss, *Are Business Method Patents Bad for Business?*, 16 SANTA CLARA COMPUTER AND HIGH TECH. L.J. 263, 274 (2000) (explaining that intellectual property rights are basically viewed as solutions to the free rider problem, and are valued because they encourage disclosure to the public).

²⁹ *Id.* at 11 (explaining the thought that property rights should be recognized when there is a public benefit as opposed to simply a private benefit). See generally JOHN W. SCHLICHER, *PATENT LAW, LEGAL AND ECONOMIC PRINCIPLES* §§ 2 – 3 (2d ed. 2009) (explaining that the Supreme Court has often analyzed policy concerns when discussing a new category of patentable subject matter).

³⁰ See *infra* Part IV.

³¹ See, e.g., *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1372 (Fed. Cir. 1998).

³² Malla Pollack, *The Multiple Unconstitutionality of Business Method Patents: Common Sense, Congressional Consideration, and Constitutional History*, 28 RUTGERS COMPUTER & TECH. L.J. 61, 69 (2002).

³³ See *infra*, p. 10.

³⁴ Keith E. Maskus & Eina Vivian Wong, *Searching for Economic Balance in Business Method Patents*, 8 WASH. U. J. L. & POL’Y 289, 297 (2002) [hereinafter Maskus and Wong].

computers. BMs are distinguished from physically embodied inventions because these generally do not serve completely commercial functions and there is often a tangible result which can be held in your hands.³⁵ Additionally, BMs are distinguishable from physical inventions because bmPs claim patent rights over a method for actually doing business, while physical inventions claim the physical embodiment of the invention. Physical inventions are not purely methods of doing business. Thus, those processes which satisfy the MOT Test are not BMs at issue here.³⁶

The very nature of BMs permits them to be broadly generalized, so they can be applied to many different types of industries or implementation methods.³⁷ This is because many organizations seek to reduce transaction costs and improve financial techniques by any means possible. Many current bmPs are for generally well known BMs, but the claimed “inventive” method merely applies that BM to a new market or technology, particularly computer software or the internet.³⁸ Some of the most notable examples are those that occur at the point of sale to a customer. One example of a bmP covers a software method for “upselling” at a cash register of a food restaurant.³⁹ If a customer purchases food with cash, the register calculates the change. The patented software cross checks the amount of change due with a defined virtual pool of additional food items that can be offered for that amount of change, and then gives customers the option to forego change for that food item.⁴⁰ This practice of upselling is the embodiment of a rather simple abstract idea since it is one of the most common restaurant industry practices.⁴¹ However, this bmP grants the exclusive right to preclude other software implementations of this generally well known concept of upselling. Another example of a bmP is for a “method of promoting sleep systems,” describing how a salesperson can help a customer select the perfect mattress by positioning the customer on the bed with a certain arrangement of pillows.⁴² Both of the above are perfect examples of what should be considered unpatentable abstract ideas, yet they are covered by bmPs. Applying generally known BMs to a specific market context should not create patentability. Simply attaching a known BM to computer software should not make an abstract idea patentable either, as in the case of the upselling bmP noted above. This was precisely the issue that the Supreme Court addressed in *Bilski*.⁴³

Many bmPs are formula based and are grouped in Class 705 within the USPTO.⁴⁴ The BM groupings in Class 705 pertain to “general business operations,” and generally apply formulas to produce an output which is relevant to either an economic market or to business

³⁵ *Id.*

³⁶ *See supra*, Part II.A (discussing the MOT Test).

³⁷ *See* Maskus and Wong, *supra* note 34, at 299.

³⁸ *See* Maskus and Wong, *supra* note 34.

³⁹ Method and Sys. for Processing Supplementary Product Sales at a Point of Sale Terminal, U.S. Patent No. 6,598,024 (filed Nov. 12, 1999) (issued July 22, 2003).

⁴⁰ *Id.* at col. 14 l. 1 (claim 1 recites: “A computer implemented method comprising: generating a purchase price of a purchase; generating a rounded price; calculating a round-up amount, the round-up amount being a difference between the purchase price and the rounded price; determining an upsell in dependence on the round-up amount; and outputting a signal indicative of the upsell.”).

⁴¹ I speak from my 12 years of experience as a waiter and the food industry in general.

⁴² U.S. Patent No. 6,997,070 (filed May 12, 2003) (issued Feb. 14, 2006).

⁴³ *See supra*, Part II.A.

⁴⁴ U.S. PATENT AND TRADEMARK OFFICE, A USPTO WHITE PAPER: AUTOMATED FIN. OR MGMT. DATA PROCESSING METHODS (BUSINESS METHODS) (2009) [hereinafter USPTO WHITE PAPER], <http://www.uspto.gov/web/menu/busmethp/whitepaper.pdf>.

functions that are related to managing a corporation or calculating prices.⁴⁵ Note how these types of formulas might satisfy the MOT Test as applied in *State Street*, because applying calculations to raw data input “transforms” them to useful and tangible results.⁴⁶ The “Hub and Spoke” system at issue in *State Street* is but one example of a formulaic bmP.⁴⁷ Another example of a Class 705 bmP is for “Virtual Sales Personnel.”⁴⁸ This bmP grants exclusive rights to “[S]oftware capable of assisting a computer user to complete an on-line sales transaction in a substantially similar manner as a human sales representative over the internet.”⁴⁹ The claims provide exclusive rights for a method to assist customers in the same way that a human sales representative would be required to do in real life, but now is applied over the internet via software. This can easily be viewed as very close to an abstract idea that is required to compete via the internet, since it seeks to preclude a method describing how a salesman would act over any medium. Another example of a formulaic bmP claims a method for restructuring debt on property by manipulating third party transactions.⁵⁰ Generally, the patent claims a BM where a third party purchases indebted property, satisfies the debt, and resells the property to the debtor for a premium so the debtor can own the property free and clear of any personal debt. The claims actually describe the required math formulas of each step.⁵¹ Most of the claims also cover the mental steps required to implement the BM. This bmP claims the exclusive rights over a common real estate practice of “flipping” homes. This is likely invalid as an abstract idea because if this is a valid patent, no real estate agent could use this BM for flipping indebted property through purchase of a third party.

The lower courts have held BMs to be a patentable process, but the issue is still open for the Supreme Court and Congress. The Supreme Court held in *Bilski* that the MOT Test is not determinative, which may have inadvertently expanded the category of patentable BMs to include those which are more than an “abstract idea.” Formulaic BMs have been held to be patentable because they “transform” numbers, and post-solution use makes them a tangible result. But the fact remains that abstract ideas should never be patentable, even if applied to particular markets. Despite the best efforts of the USPTO, bmPs have been granted for rights over abstract ideas, shown by the examples in Part II B. From a policy standpoint, these bmPs are all problematic. The methods for upselling, positioning pillows for selling mattresses, and for “flipping” real estate debt are all prime examples of abstract ideas that should remain in the public domain. Granting exclusive rights to methods required to do business is inappropriate from a policy standpoint because it inhibits competition, which should only be permitted in cases where there is high valued public disclosure.⁵² BMs provide low value disclosure since they

⁴⁵ *Id.* at 7 (“...[I]ncluding, but not limited to: 1[.] determining customer base and demand (operations research and market analysis); 2[.] advertising management, cataloging systems, incentive programs, and redeeming coupons and 3[.] exchanging money and credit for business transactions (credit and loan processing, point of sale systems and billing.”).

⁴⁶ *See supra*, Part II.A.

⁴⁷ *See supra*, Part II.A.

⁴⁸ U.S. Patent No. 6,070,149 (issued May 30, 2000).

⁴⁹ *Id.* at col. 1 l. 1.

⁵⁰ Business Method for Acquisition of Debtor Real-Estate and Restructuring of Debt, U.S. Patent No. 7,213,001 (filed June 14, 2001) (issued May 1, 2007).

⁵¹ *Id.* at col. 11 l. 1.

⁵² *See generally* JOHN W. SCHLICHER, PATENT LAW, LEGAL AND ECONOMIC PRINCIPLES §2:11 (2d ed. 2009) (discussing *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470 (1974)) (explaining that one policy underlying patent law is to encourage inventors to disclose their inventions to the public, and the public benefits when patents expire

contain abstract ideas that have been in the public knowledge for a long time. It is not enough that something has value – the underlying policy concerns of patent law must be considered, and the public must be given a *quid pro quo* that is actually worth something in exchange for giving an inventor a monopoly.

III. USPTO Practice, Congressional Consideration, and the Difficulty of Challenging BMPs.

A. USPTO Practice

To receive a U.S. Patent an inventor must apply to the USPTO, the official regulatory agency of the patent system. A patent application is “prosecuted” by USPTO employees known as “examiners” to determine if the invention meets patentability requirements. Since the *State Street* decision, the USPTO has seen an increase in the number of bmP applications,⁵³ but the initial ten years are miniscule compared to the recent explosion of bmP applications in the past two years. The question that immediately comes to mind is whether or not the USPTO has enough human resources to meet demand and simultaneously devote enough time to properly scrutinize each application.

Recent statistics indicate that Class 705 bmP applications have been issued patents at an alarmingly increased rate. As of 2010, the year of the *Bilski* decision, the USPTO received at least 17,231 Class 705 filings,⁵⁴ and 5,263 patents were issued.⁵⁵ Assuming that applications filed in 2010 were also granted in 2010, approximately 30% of applicants were granted patents. However the USPTO examination process usually takes two and a half to three years from filing to issuance,⁵⁶ so by comparing the 14,257 Class 705 filings in 2008⁵⁷ to the number of successful patent grants in 2010, around 37% of applicants were granted patents from that year.⁵⁸ In 2011, the application and issuance rate continued to be similar as the year before.⁵⁹ From 2002 until 2009, the USPTO on average granted 8.5% of patent applications.⁶⁰ When the patent issuance rates in 2010⁶¹ are compared to the previous eight years, issuance rates have nearly quadrupled.

The evidence permits two inferred conclusions. First, in the past two years, the rate of granting patents for bmP applications has increased. Second, the total bmP applications, specifically in Class 705, has also increased substantially. It becomes apparent that the USPTO has a formidable task in dealing with an increased workload in coming years. But has the increased rate of issuing bmPs been the result of the USPTO’s increased resource allocation for prosecution? Admittedly, the USPTO has responded well by specifically allocating additional

by having free access to the information. But in comparison, there is a competing policy where inventions that are already in the public domain must be left in the public domain for all to use).

⁵³ See USPTO WHITE PAPER, *supra* note 44, at 4 (but also noting that Class 705 applications still made up less than 1% of total patent applications).

⁵⁴ U.S. Patent and Trademark Office, CLASS 705 APPLICATION FILING AND PATENTS ISSUED DATA (May 5, 2011) [hereinafter USPTO CLASS 705 APPLICATIONS DATA], <http://www.uspto.gov/patents/resources/methods/applicationfiling.jsp>.

⁵⁵ U.S. Patent and Trademark Office, PATENT TECH. MONITORING TEAM, PART II (Dec. 2011) [hereinafter USPTO PATENT COUNTS], <http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cbcby.htm#PartA2>.

⁵⁶ See *infra* Part III.A.

⁵⁷ See USPTO CLASS 705 APPLICATIONS DATA, *supra* note 54.

⁵⁸ See USPTO PATENT COUNTS, *supra* note 55.

⁵⁹ *Id.*

⁶⁰ See USPTO CLASS 705 APPLICATIONS DATA, *supra* note 54.

⁶¹ Either the 30% or 37% issue rate for 2010 can be compared because the same conclusions result from both.

resources for examining BMs and Class 705 applications.⁶² However, this has not been enough since there is still huge backlog for patent applications in the USPTO. As of 2011, the USPTO had an average first action pendency of 2 and 1/3 years, and a patent can be pending for nearly 3 years before it is issued.⁶³ This means that it took an examiner nearly 2 and 1/3 years to have a first look at an application for a patent as of 2011. Since a patent expires 20 years after its earliest U.S. filing date, every day that patent application awaits a USPTO determination imposes costs on the inventor.⁶⁴ It is true that bmPs make up a small percentage of the total patents granted each year, so BM applications likely haven't been the proximate cause of this delay.⁶⁵ But at a minimum, they are one contributing cause. However, it is also readily apparent that the USPTO has a huge task in sorting through hundreds of thousands of patent applications which has resulted in a long delay for the patent prosecution of other applications.

An inherent danger within USPTO practice is based on the fact that applicants generally claim broadly and leave it up to the patent examiner to require an narrowing amendments. The broadest claims are worth the most, since the claims define the right to exclude.⁶⁶ Inventors do not want to narrow their BM to a particular application because broader claims might encompass future unknown uses based on the doctrine of equivalents.⁶⁷ A patent examiner must use "prior art" to evaluate applications. Generally speaking, prior art consists of anything that was publicly used or known, and other patent applications or patents.⁶⁸ BMs impose several difficulties for the examiner while evaluating prior art. A USPTO Examiner must rebut a presumption that every patent application is novel, and a patent will issue when the examiner cannot rebut this presumption.⁶⁹ Most, if not all, of information that a patent examiner could use as prior art is probably unavailable because BMs are often used secretly, and might not even be written down at all, or in one comprehensive work.⁷⁰ This leaves the information unavailable to an examiner who must now rely on the limited information presented in other applications, granted patents and any cited references. The USPTO has addressed the issue head on by increasing the amounts of non-patent literature on general industry practices.⁷¹ But this does not change the fact that many BMs should be barred from patentability because they have already been publicly used.⁷² The "secret" use of a method is really a public yet non-informing use when the results of

⁶² See USPTO WHITE PAPER, *supra* note 44, at 9 (discussing how the USPTO has provided more funding to prosecution of Class 705 bmPs by hiring more examiners with better training and knowledge in the field, and by expanding the availability of non-patent literature relevant to business methods).

⁶³ U.S. PATENT AND TRADEMARK OFFICE, PERFORMANCE AND ACCOUNTABILITY REPORT 2 (2011), <http://www.uspto.gov/about/stratplan/ar/2011/USPTOFY2011PAR.pdf>.

⁶⁴ 35 U.S.C. § 154(a)(2) (2012) (requiring that any patent filed on or after June 8, 1995 has a 20 year duration that begins on the earliest U.S. filing date).

⁶⁵ See USPTO PATENT COUNTS, *supra* note 55 (indicating that as of 2010, 17,231 Class 705 applications were made, as compared to nearly 250,000 total utility patent applications made in the U.S.).

⁶⁶ See, e.g., 35 U.S.C. §§ 154(a)(1); 271(a) (2012).

⁶⁷ See, e.g., *Sanitary Refrigerator Co. v. Winters*, 280 U.S. 30, 42 (1929) (holding that infringement occurs under the doctrine of equivalents if an accused infringer's device "performs substantially the same function in substantially the same way to obtain the same result."). And see generally, *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 28 (1997) (noting that the doctrine of equivalents is judicially created, should not be applied to the invention as a whole but should be limited to the claims, and the doctrine is subject to certain limitations).

⁶⁸ See, e.g., 35 U.S.C. § 102 (2012).

⁶⁹ *Id.* ("A person shall be entitled to a patent unless..." it violates one of the conditions for novelty).

⁷⁰ Dreyfuss, *supra* note 28, at 269 (explaining the knowledge of BMs are "in the practices and policies of the firms that use them...").

⁷¹ See *supra*, Part III.A.

⁷² 35 U.S.C. 102(b) (2012)

the method are commercially sold to the public more than one year before patenting, and patent case law holds that this type of use creates a novelty bar if done by the patent applicant.⁷³ But many BMs have been used by other competitors, yet in this secret manner. It is unlikely that examiners could find enough information on these sorts of methods to deny a BM for lack of novelty.

One hypothetical cause of the increased application and issuance rate could be the use of a lower *Bilski* abstract idea standard in examination.⁷⁴ The USPTO has continued to utilize factors based on the MOT Test, and has used an abstract idea inquiry as merely a secondary measure.⁷⁵ Since *Bilski*, the USPTO's examination of bmP applications has not changed much, if at all.⁷⁶ Assuming the accuracy of the statements by the Deputy Commissioner in the *Interim Bilski Guidance*, the USPTO has been utilizing the same rules that issued the same controversial bmPs that have been discussed.⁷⁷ And when looking at recently issued bmPs, many seem to be the application of an abstract idea to new markets or new technologies, which *Bilski* precisely instructs against.⁷⁸ These are impermissible or are likely invalid as abstract ideas. However, the fact that the USPTO examination process utilizes the same standards as pre-*Bilski* cannot conclusively be the cause of the increased application and issuance rates for bmPs. If BMs have received additional funding for research and development directed towards innovation of new and useful BMs, then the true goal of patent law might have been realized. But these questions remain to be answered, and a modern in depth empirical study is warranted here.

B. Congressional Consideration:

Another major concern lies in the fact that Congress has not paid enough attention to the policy rationale underlying patent law to determine the patentability of BMs, as is shown by recent Congressional action. The Leahy-Smith America Invents Act recently amended the Patent Act, but the amendments did not affect the statutory nor judicial definition of BMs.⁷⁹ So the current trend of issuing broad bmPs will continue until there is precise action. However, Congress has provided a limited defense to infringement suits where the alleged infringer has used a BM in U.S. commerce for at least 1 year before the inventor had either filed a patent application or made a public disclosure.⁸⁰ This permits businesses to continue using BMs in commerce, but it does not address concerns of an alleged infringer who uses a BM within one year or less of the inventor's filing date, which might be the case in rapidly advancing field of

⁷³ See, e.g., *Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516 (2d Cir. 1946) (holding that patent application for a process was barred because inventor had made a secret use that was commercial in nature).

⁷⁴ See *supra*, Part II.A.

⁷⁵ Interim Guidance for Determining Subject Matter Eligibility for Process Claims in View of *Bilski v. Kappos* 1 (Dec. Comm'r Pat. July 2010) [hereinafter *Interim Bilski Guidance*], http://www.uspto.gov/patents/announce/bilski_guidance.jsp ("Under the *Interim Bilski Guidance*, factors that weigh in favor of patent-eligibility satisfy the criteria of the [MOT Test] or provide evidence that the abstract idea has been practically applied, and factors that weigh against the patent eligibility [satisfy neither of the above]....") (emphasis added).

⁷⁶ *Id.* ("Since claims directed to abstract ideas were not patent-eligible prior to *Bilski*, subject matter eligibility outcomes based on the *Interim Bilski Guidance* are not likely to change in most cases. The difference is that in rare cases, factors beyond those relevant to the [MOT Test] may weigh for or against a finding that a claim is directed to an abstract idea.") (emphasis added).

⁷⁷ See *supra*, Part II.B.

⁷⁸ See *supra*, Part II.B.

⁷⁹ 35 U.S.C. §§ 100 - 102 (2012) (the definitions of patentable subject matter categories have remained the same).

⁸⁰ 35 U.S.C. §273 (2012).

BMs.⁸¹ Importantly, the Leahy-Smith Act does not address the policy issues pertaining to bmps. Congress has also addressed bmps by adding a new post-patent-issuance USPTO administrative proceeding.⁸²

C. **Challenging Business Method Patents:**

So, if a bmp *should* be invalidated because it is an abstract idea, wouldn't it be easy to challenge and invalidate the patent? An issued patent is presumed valid, so the burden of producing evidence and the burden of proof is on the person challenging the validity of a patent.⁸³ The parties can negotiate a license agreement, but both parties could be subject to litigation costs if they cannot agree on its terms. The danger here is that a bmp which should be invalid might never be invalidated, yet the bmp holder could still unjustifiably reap the rewards from patent in the market.⁸⁴

Challenging the validity of an issued bmp in court is costly. It has been estimated that the average patent infringement suit had a median cost of \$2.5 million from beginning to end, or \$1.25 million from just commencing the suit to the end of discovery.⁸⁵ Even for the low end of infringement suits, where damages were less than \$1 million, the median estimate of total legal costs was between \$350,000 and \$600,000.⁸⁶ These high costs encourage settlement and license agreements before bringing suit, so the validity of many bmps may still not be challenged in court, and potentially invalid bmps would remain enforceable against other parties.

As of Sept. 2012, validity challengers can utilize a new post-grant review in the USPTO. This inter-partes proceeding permits the avoidance of high litigation costs, but standing is limited to those accused of patent infringement.⁸⁷ This is problematic because a party only has standing to challenge validity after they actually use the bmp. At that point, it is likely that the accused infringer has invested considerable time and resources implementing the bmp. So the alleged infringer now faces a difficult decision. Does he continue using the bmp, which would drive up potential damages for infringement against him, or does stop his business and challenge validity in court? Of course, the accused could probably seek a license to use the bmp, but at this point his bargaining power is naught and is at the mercy of the bmp owner because he is already infringing.⁸⁸ As noted before, this new proceeding has the potential to reduce litigation costs associated with challenging bmps by avoiding court. But the new proceeding might not do enough. First, a challenger/infringer will still have to pay for the costs of discovery. Second, the mere issuance of a bmp can lead to anti competitive effects on its own.⁸⁹

It seems that an issued bmp is not easily invalidated, because challengers have a high evidentiary burden to meet and likely face very high costs of discovery. Discovery costs themselves could prevent alleged infringers from utilizing the new USPTO inter-partes

⁸¹ See Dreyfuss, *supra* note 28, at 272; *infra* Part III.C.

⁸² See *infra*, Part III.C.

⁸³ 35 U.S.C. § 282(a) (2012).

⁸⁴ See generally Dreyfuss, *supra* note 28, at 270 (explaining that even if a challenge is successful, it might not be adequate because patents have “*in terrorem*” effects which would deter investors from investing in companies where patent infringement suits are pending).

⁸⁵ See Am. Intellectual Prop. Law Ass’n, AM. INTELLECTUAL PROP. LAW ASS’N REPORT OF THE ECON. SURVEY (2011), <http://www.patentinsurance.com/iprisk/aipla-survey/>.

⁸⁶ *Id.*

⁸⁷ 35 U.S.C. § 321 (2012).

⁸⁸ See *infra*, Part IV.

⁸⁹ See *infra*, Part IV.

proceeding, essentially forcing an infringing party into a license that has either an unreasonable fee or should not be required because the bmP might be invalid.

Part III shows that the overall number of applications for bmPs has increased, yet government action to address the issue of the patentability of BMs has been moderate. In the past two years, bmPs have a favorable 30% rate of issuance, as compared to a meager 8.5% from 2002 to 2009. The USPTO has increased the expertise of its examiners and the resources available for the prosecution of bmP applications, yet has been issuing unprecedented numbers of bmPs in the past two years at an alarmingly high rate. There are already inherent dangers in the patent system itself which remain unresolved. Applicants generally claim broadly, so patent examiners must thoroughly examine prior art to determine the novelty of the invention. But a lot of prior art that examiners need to make novelty decisions is very difficult to find which precludes a comprehensive novelty determination. BMs are public yet non-informing uses, because the results of a BM are commercially sold, yet no one can tell the exact BM that was utilized to achieve the end commercial results. The USPTO has not changed its examination procedure after *Bilski* because abstract ideas have never been patentable. So the same standards that have been applied to grant bmPs for the impermissible examples discussed in Part II B are still at work behind the scenes in the USPTO. Congress has sought to address bmP issues by providing new inter-partes proceedings to challenge a presumed valid bmP. This can lower the costs of going to court, but the costs of discovery still remain. Standing requires an alleged infringer to already implement an entire commercial strategy and use the BM before they can challenge validity, which can destroy their negotiation power while seeking a licensing agreement. And finally, by side-stepping the issue, Congress has not sufficiently addressed the concerns of this paper, i.e. whether or not BMs should be patentable subject matter at all based on policy concerns.

IV. Policy Analysis:

There are many views on the policy rationale underlying patent law⁹⁰ which are relevant to the study of bmPs. Whether BMs are justified from a policy standpoint is still up for debate. From a patent as incentive policy perspective, a patent functions as an incentive to promote inventive activity, and society benefits from increased innovation.⁹¹ Since an inventor can assign or license his patent rights to another,⁹² he or she can collect royalties or fees in exchange for use of the invention. This incentive is important where there are high investment costs and where the invention can easily be copied once brought to market. The free-rider policy theory argues that without patents, “free-riders” would destroy the incentive to innovate because free-riders copy inventions without incurring their own startup costs.⁹³ The patent’s function as incentive is also important when there are few substitute market based incentives. The costs imposed on society by recognizing bmP rights are also evaluated.

Patents incentivize innovation because an inventor receives the opportunity to recoup research costs and make a profit by excluding others from the invention. The patent as incentive

⁹⁰ See SCHLICHER, *supra* note 52, at §2:9 (noting at least five economic based approaches to patent policy).

⁹¹ See e.g., *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 229 (1964) (stating patents “are meant to encourage invention by rewarding the inventor with the right...”).

⁹² 35 U.S.C. § 261 (2012).

⁹³ David W. Barnes, *Free-Riders and Trademark Law’s First Sale Rule*, 27 SANTA CLARA COMPUTER AND HIGH TECH. L.J. 457, 470 (2011) (citing *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 73 F. Supp. 2d 1228, 1249 (W.D. Wash. 1999), *vacated*, *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343 (Fed. Cir. 2001)) (“Courts recognize that innovation will be discouraged if competitors are allowed to free-ride on patented inventions...”).

function is particularly important and strongly justified in industries with high research and development costs and/or when the nature of the invention cannot be kept secret once brought to market.⁹⁴ For example, the development of a useful pharmaceutical drug requires huge initial research costs, often millions of dollars and years of clinical testing, to create the correct chemical composition.⁹⁵ Comparatively, the justification for a patent incentive is weakest when the cost of innovation is low. Innovating BMs does not require direct investment costs, and are miniscule compared to other patentable categories. This is due to the fact that the creation of BMs flows naturally from normal business operations, resulting from either experience or from self-improvement of organizational aspects. For example, Class 705 BMs pertain to general business operations, market analysis, and advertising management, all which are required to compete in the marketplace.⁹⁶ The costs of developing BMs arise from the cost of doing business on a day to day basis, and thus are indirect. The highest investment costs of any invention occur during the research and development phase. For example, physical inventions usually require construction of prototypes. Drugs require clinical tests. BMs do not require the construction of prototypes because one cannot physically make a method. However, software implemented BMs most likely require the most significant startup costs as compared to all other BMs.⁹⁷ But even those costs are negligible as compared to other patentable subject matter, because it most often only requires the costs of labor to employ software programmers. The justification for providing a patent incentive is weakened for BMs because they do not require a large level of direct investment costs.

The free-rider theory is closely related to the second prong of the patent incentive theory, which argues that patent incentives are strongly justified when inventions are easily copied. If inventions are easily copied, free-riders would destroy any market based incentives to innovate. By copying inventions, free-riders do not incur the research and development costs, and could offer the copy at lower prices, thus forcing innovators out of the market. If this were the case, investments in innovation would diminish because inventors would not have an adequate opportunity to recoup costs. Thus, society would suffer due to a lack of innovation without the patent system's incentive.⁹⁸ Returning to the analogy of the pharmaceutical drug industry, once a drug is sold, a competitor could easily reverse engineer and create their own cheaper generic version. Without patent protection, pharmaceutical drug creators would not have sufficient incentives to develop new drugs because they would be ousted from the market as soon as their drug hit the market.⁹⁹ But the free-rider justification for patents is strong when the value of the invention can be discovered by simply observing the invention's public use and figuring out what makes an invention tick, as in the pharmaceutical industry. Comparatively, BMs are a

⁹⁴ See HALL, BUSINESS METHOD PATENTS, *supra* note 27, at 7.

⁹⁵ *Id.*

⁹⁶ See *supra*, Part II.B.

⁹⁷ FED. TRADE COMM'N., TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY, 154 (2003), <http://www.ftc.gov/os/2003/10/innovationrpt.pdf> (analyzing the software and internet industries, concluding that generally these industries have significantly less investment costs compared to other high-tech industries because software does not require high up-front research costs, trials, or factories. One commentator stated they financed the development of a software BMP with credit cards. However, it also notes that there are exceptions to this, as exemplified by high R&D costs by Microsoft).

⁹⁸ See Barnes, *supra* note 93, at 472 (citing Yusing Ko, *An Economic Analysis of Biotechnology Patent Protection*, 102 YALE L.J. 777, 791 (1992)).

⁹⁹ See Peter S. Menell, *Intellectual Property: General Theories*, in 2 ENCYC. OF LAW AND ECON.: CIVIL LAW AND ECON. 129, 136 (Boudewijn et al. eds., 2000) (noting that in the pharmaceutical industry, patents are the principal way that pharmaceutical drug companies recoup their investment costs).

hybrid form of public, yet non-informing, use which directly negates the free-rider rationale for patent protection. BMs are used publicly in that the public sees the end result of the method. But the public cannot decipher the actual steps operating behind the scenes, which makes the use of BMs non-informing even when done in public. It is difficult to decipher a method from seeing the end result alone, thus free-riders aren't very threatening to the currently existing market based incentives for BMs. True, free-riders could theoretically reverse engineer BMs, but while doing so the free-rider would be required to incur their own research and development costs. This might reduce the reprehensibility of a free-rider as well.¹⁰⁰ In the context of software bmPs, software is not readily available to the public without physical access to the computer containing it. Software code is generally stored on password restricted servers, not on websites, so there is little threat of losing software to random public users viewing web pages. Additionally, Federal Law protects the unauthorized access of certain computers used by financial institutions.¹⁰¹ If software is distributed by the bmP owner, a BM can be protected by state contract law by utilizing well drafted end user license agreements, a common practice for protecting rights to software.¹⁰² Additionally, BMs do not implicate free riding as much as other patentable subject categories because their true value lies in the organization's ability to execute it, not necessarily in the steps of the method itself. So even if a BM were easy to copy, in many cases it is not enough to simply copy it.¹⁰³ This is true because most BMs in Class 705 pertain to structural and organizational components of the business.¹⁰⁴

The patent as incentive theory takes on greater significance when there are few substitute incentives in a free market, because then patents become the primary incentive for innovative activity. In contrast, if a patent-less market provides adequate incentives to innovate, there is less justification for the adding a patent incentive.¹⁰⁵ In the context of BMs, the marketplace contains a multitude of incentives which are much more significant than a patent incentive because they are potentially much more profitable. This diminishes the necessity for a patent incentive because the marketplace offers an adequate recoupment opportunity to encourage the continued production of useful BMs. Since bmPs serve mainly commercial functions, BMs are always created to capture a market based incentive of either reducing transaction costs or increasing productivity levels.¹⁰⁶ Every business must achieve sustainable competitive advantages over competitors to maintain profitability in the marketplace. For example, a business method that saves transaction costs will allow the business to supply goods or services at a lower cost than competitors, which may draw more customers. Or businesses can maintain

¹⁰⁰ See Barnes, *supra* note 94, at 471-3 (citing National Basketball Ass'n v. Motorola, Inc., 105 F.3d 841 (2d Cir. 1997)) (discussing how in the trademarks misappropriation context, some courts look to the free-rider's own investments to "benefit from another's creative activity rectifies the moral imbalance, despite the lack of compensation to the creator.").

¹⁰¹ See generally The Computer Fraud and Abuse Act, 18 U.S.C. § 1030 (2012) (providing a cause of action against unauthorized access of the computers of financial institutions used in interstate commerce).

¹⁰² See, e.g., ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996) (holding that "shrinkwrap" licenses that popped up upon installation of software are governed by the Uniform Commercial Code).

¹⁰³ See Dreyfuss, *supra* note 28, at 275. (stating that BMs are practiced in public so there is no special need to encourage disclosure and that BMs are hard to free ride on because they "depend on the social structure within the firms utilizing them – on compensation schemes, lines of reporting, supervising policies and other business factors.").

¹⁰⁴ See *supra*, Part II.B.

¹⁰⁵ *But cf.* Menell, *supra* note 96 (noting how several studies show that in most industries, patent rights are not the primary means for recouping research and development costs).

¹⁰⁶ See *supra*, Part II.B.

the normal market price and reap higher profits with the current customer base. First mover advantages allow organizations to capture the first audience of a market niche. “Sticky effects” are associated with first movers, describing the notion that consumers often equate the first with the best, at least for a short time.¹⁰⁷

BmPs impose societal costs by producing anti-competitive effects that exist outside the scope of the patent rights. These unintended consequences are a huge cost because it could potentially reduce innovation in the field or create an extensive cross licensing patent thicket which increases the costs of doing business.¹⁰⁸ From the outset, a BMP can be the foundation for creating “network effects” where a BMP holder can create comprehensive systems based on one central bmP to attract consumers.¹⁰⁹ The network’s worth is based on the size of the network itself because consumers are attracted to large networks.¹¹⁰ BmPs permit the owner to create large networks without competition. But once a BMP owner creates a large network of its own and attracts many customers, the validity of the BMP becomes almost irrelevant later, because often customers will stick with them.¹¹¹

Another cost to society occurs when bmP owners make inefficient use of the court system. Courts often will be forced to adjudicate what are essentially negotiation failures. BmP owners have the upper hand in negotiations with a potential licensee. Typically when licensing negotiations fail, the parties can settle and negotiate or choose not to deal with each other. But if an impasse is reached in negotiations where one party owns a bmP, the bmP owner would probably seek an injunction precluding the other side from competing. This is one bargaining chip that might force potential licensees to accept unfavorable terms during negotiations who would otherwise walk away from a bad business deal. What is more disturbing is that a bmP holder can unilaterally demand a higher licensing premium than it should receive in an open market and the licensee might have no choice but to accept. For instance, if a licensee models their business around a licensed bmP, their business might become dependent on their ability to use the bmP. If a bmP owner terminates the agreement, the licensee’s entire business could be crippled. Successful firms might ironically be subject to exorbitant licensing fees from the smaller bmP holder who has not been as successful, thus increasing the costs for consumers to use the “best” services out there. Additionally, even if a bmP owner wins an infringement suit, the remedies available might be insufficient to protect their rights.

eBay Inc. v. MercExchange, L.L.C. exemplifies all of the above concerns.¹¹² MercExchange refused to continue a bmP licensing agreement with eBay because they were not

¹⁰⁷ Dreyfuss, *supra* note 28, at 271.

¹⁰⁸ John R. Allison & Emerson H. Tiller, *The Business Method Patent Myth*, 18 BERKELEY TECH. LAW J. 987, 997, note 28 (quoting Carl S. Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting*, in 1 INNOVATION POLICY AND THE ECON. 1-2 (Adam Jaffe et al. eds., 2001), <http://faculty.haas.berkeley.edu/shapiro/thicket.pdf> (describing a patent thicket as a “dense web of overlapping intellectual property rights that a company must hack its way through in order to actually commercialize new technology” which might increase premiums for patent licenses and make it difficult to invent new technology).)

¹⁰⁹ See Maskus and Wong, *supra* note 34, at 13.

¹¹⁰ *Id.*

¹¹¹ See Dreyfuss, *supra* note 28, at 271-2 (stating that once the BMP owner has created a network, competitors must start small in comparison to the first mover and would not be able to provide similar value to its customers as the BMP owner has been enjoying).

¹¹² *eBay Inc. v. MercExch., L.L.C.*, 547 U.S. 388 (2006) *vacated sub nom. MercExch., L.L.C. v. eBay, Inc.*, 401 F.3d 1323 (Fed. Cir. 2005) *and remanded to sub nom. MerchExch., L.L.C. v. eBay, Inc.*, Nos. 03-1600 to 03-1616, 2006 WL 2036554 (Fed. Cir. 2006).

satisfied with the renewed offer since eBay had recently enjoyed a huge boom in its business.¹¹³ So when negotiation for a renewed license failed, MercExchange sought to enjoin eBay from continuing to use the bmP. The bmP owned by MercExchange was for a software implemented method of an on-line sales program which eBay had previously licensed. Since eBay had already built its online auction business around MercExchange's bmP, it would have to cease its entire business to stop infringing. eBay was practically left with no choice but to willfully infringe and challenge the validity of the patent in court.

The case is important because the Supreme Court ruled injunctions are not automatically granted, even if one party has willfully infringed a patent, as occurred here.¹¹⁴ BmP holders still have to make a showing of irreparable harm, which will be very difficult in cases where they initially license to one party but continue to offer third parties similar licensing arrangements.¹¹⁵ Second, MercExchange's decision to go to court resulted from a negotiation failure which had essentially forced eBay to infringe the bmP. It is easy to say that courts should not get involved in these types of disputes – negotiations are better left to the bargaining table and the free market. Finally, cases such as these are not a good use of scarce judicial resources. 11 different decisions were made on this issue over the span of 8 years.¹¹⁶ Combined with the fact that every injunction sought must now be litigated, the costs to society by granting bmPs are great in that it ties up the judicial system which already is a scarcely limited resource.

Since BMs do not require high direct investment costs, a patent incentive to create BMs is generally not urgent. BMs often flow naturally as a result of experience or from a general organizational desire to achieve better business functions. Direct innovation costs are probably limited to the costs of labor, and even that could be considered a part of overhead costs of daily operations. Additionally, since bmPs are created to satisfy financial and managerial needs, their adequate target is recouping market based incentives, such as first-mover advantages and achieving lower transaction costs. Since BMs are publicly used, yet non-informing as to the method in operation behind the scenes, free-riders will not be able to easily reverse engineer the methods. Additionally, software is protected from misappropriation by other state and federal laws. The value of BMs is within the organizational effectiveness of implementing the method, not in the method itself. BmPs create huge costs to society by forcing what are essentially negotiation failures into the court system, as exemplified by the *eBay v. MercExchange* decision. Analyzing the policy of patent law yields at least one conclusion: expanding BMs as a patentable category is highly questionable from a policy perspective.

V. **CONCLUSION:**

BMs have been recognized as patentable since the *State Street* decision. A BM is a method which serves primarily commercial functions, or a market-based strategy. They generally seek to achieve two commercial goals - decreased transaction costs and increasing productivity. The USPTO denotes Class 705 as the classification for bmPs, which generally consist of organizational business methods, marketing methods, methods for analyzing customer bases, and financial data analysis methods. The court rules are ambiguous because there are no bright line rules. Abstract ideas include laws of nature, natural phenomena and mathematical

¹¹³ *Id.* at 390 (eBay's offer was probably reasonable since it was similar to a previous licensing agreement between eBay and MercExchange, and eBay would actually be paying more than eBay's direct competitors were paying MercExchange for the same license).

¹¹⁴ *Id.* at 392 (citing *MercExch., L.L.C. v. eBay, Inc.*, 401 F.3d 1323 (Fed. Cir. 2005)).

¹¹⁵ *Id.* at 392.

¹¹⁶ *MerchExch., L.L.C. v. eBay, Inc.*, Nos. 03-1600 to 03-1616, 2006 WL 2036554 (Fed. Cir. 2006).

formulas. An abstract idea is at least method which embodies general economic principles or common methods of doing business. Applying an abstract idea to a specific industry cannot render it patentable. Abstract ideas can never be patented because these are too close to the inventive ideas required to innovate and create subsequent inventions. These must remain in the public domain for use by all inventors. The expansion of patent to include BMs is troubling because the Supreme Court has never ruled on the issue, but recently noted that they are of suspect validity. An in depth policy analysis is required, combined with some empirical research.

BMs are generally of questionable validity because many examples of currently issued bmPs are likely an abstract idea and invalid. The examples show that some current bmPs cover abstract ideas, taking ideas and the basic methods of doing business out of the public domain into the hands of a private person. If the USPTO continues to use its current standards, there is a chance that abstract ideas will continue to be patented. Recent USPTO statistics indicate that around 30% of applications are granted patents, and the number of applications has been increasing, so if the USPTO does not change its prosecution methods, there is a chance to have a butterfly effect on the rest of the patent system for at least the next decade. Although the USPTO has responded valiantly in an attempt to deal with the demands of the patent system, it probably has not been enough. Patent examiners must still determine what an abstract idea is, and it is a concept which cannot be specifically defined. The USPTO has not substantially changed its examination procedure for BMs since the *State Street* decision. Additionally, the patent system presumes novelty for all patent applications so an examiner must do extensive research to rebut the novelty presumption. Thus it is possible that bmPs which are invalid or of questionable validity may continue to be issued.

Congress has also responded, but the current remedies available to infringers are not enough. The post-issuance inter-partes USPTO proceeding does not alleviate high discovery costs, and since a patent is presumed valid the challenger still faces a daunting task, even if it is in front of the USPTO.

Expanding patent protection over BMs is highly questionable from a policy standpoint. Whenever patent rights are enlarged, it is not enough that the thing has value – a thorough policy determination must show the inventive activity warrants a public monopoly. The ultimate goal of patent law is to stimulate innovation and invention by providing the patent right to exclude. But since BMs do not require high direct investment costs, there is a little need for an additional patent incentive to foster their innovation. Low investment requirements also supports the idea that market based incentives are more than adequate as an incentive than patents. Recognizing an exclusive patent right blocks most of these market based incentives to nearly all competitors that do not have a patent, by precluding competition and promoting anti-competitive effects outside of the patent itself. Also, BMs are not easy to free-ride upon because they are publicly used yet non-informing and the true value of a BM lies in the application of the method, not necessarily the exclusive right to the method.

The subject matter requirement should perform a gatekeeper role for BMs. There are two proposed options. The first broader recommendation is that BMs should be categorically excluded from patentability. First, there is a low, if any, need to provide a patent incentive for BMs. Additionally, the costs which society incurs as a direct result of granting bmPs are far greater than the benefits society receives from BMs. The costs include a high risk for granting patents on public domain knowledge, an inefficient use of the court system when bmP license negotiations fail, and even precluding competition through fostering certain unintended anti-

competitive effects. It seems as if the costs to society outweigh the benefits of granting bmps. However, in light of the extensive case precedent and Congressional inaction, this is the less likely option. The second narrower recommendation is to apply a rebuttable presumption that Business Methods are not a patentable subject category and are not novel, unless the patent applicant can prove the contrary by a preponderance of the evidence in the USPTO during prosecution.