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The Intersection of Patents and Trade Secrets

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The Intersection of Patents and Trade Secrets

by MICHAEL R. MCGURK* AND JIA W. LU**

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I. Introduction

Patents and trade secrets are the only two forms of intellectual property that protect information—patents protect patentable information (innovation), while trade secrets can protect patentable information and any other information providing economic value to the holder. Thus, the same information can often be protectable by patents or trade secrets. However, the bodies of laws governing each are far from similar. This paper explores the different origins, developments, protections, and consequences of patent and trade secret law to show their differences and numerous similarities. This paper highlights a number of factors and considerations a company should evaluate when choosing between patents and/or trade secrets to protect its information.

Patent law is at the forefront of the intellectual property regime. It is modeled on the utilitarian framework and creates a limited monopoly that encourages the production of statutory categories of inventions—namely, processes, machines, a manufacture or article of manufacture, and compositions of matter. The patent system benefits the public by spurring innovation and requiring disclosure of the patented invention in return—the so called “quid pro quo.” After the patent expires, the disclosed innovation becomes part of the public domain, remains free for public consumption and use, and then is no longer susceptible to charges of patent infringement by the patent holder.¹ To obtain a utility patent, an inventor must first file an application in the United States Patent and Trademark Office (USPTO) describing the invention. The USPTO conducts an independent review of the invention as described for compliance with several statutory requirements, including patent-eligible subject matter, usefulness, novelty, and non-obviousness. The application must also describe the invention in a way that would enable others to make and use the invention. While the threshold for usefulness (utility) is low,² the thresholds for novelty and nonobviousness are rigorous, and the threshold for patent-eligibility has recently become extraordinarily high (and somewhat unsettled) for some classes of inventions.³

1. This is not to be confused with the situation where a product, for example that was covered by a now expired patent, may still be infringing another non-expired patent owned by the same person or a third party. Likewise, in some instances, a “use” falling within the expired patent may be subject to later filed but not yet expired patents covering that “use.” If that is the case, such “use” may be subject to a claim of infringement of the later filed patent.

2. The old joke in chemical arts was to throw your compound on the grass, and if the grass grows, it has utility as a fertilizer, and if it dies, as an herbicide.

3. The Supreme Court in recent years has been very active in further developing the metes and bounds of what is considered a threshold issue, and what was for thirty plus years a very sleepy subject. See, e.g., *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014); *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013); *Bilski v. Kappos*, 561 U.S. 593, 608-09 (2010); *Prometheus Labs., Inc. v. Mayo Collaborative Servs. & Mayo Clinic Rochester*, 628 F.3d 1347 (Fed. Cir. 2010).

If the patent application passes review, then the USPTO allows the application to be issued as a patent. The inventor (or company to which the patent is assigned) then enjoys twenty years from the earliest filing or priority date (the so-called “20 year term”) of exclusive rights to exclude others from making, using, or selling the patented invention.⁴ Patent rights are powerful tools because they may bar even those who independently developed or discovered their invention from practicing their own invention.⁵

Trade secret law, on the other hand, is not so concerned with utilitarianism. Instead, trade secret law is centered on the belief that certain confidential business information of economic value should be protected against theft. Specifically, the purpose of trade secret law is to prevent misappropriation of a party’s trade secrets by unfair or commercially unacceptable means. Although trade secret law promotes competition and innovation through its aim to preserve acceptable business practices, this indirect effect has at its core the notion that trade secret law focuses only on the immediate parties involved, and is more akin to tort and contract law than to patent law.

Unlike patent law, which is grounded in our U.S. Constitution and based on federal law, there is currently no federal civil cause of action for trade secret misappropriation. Trade secret law always has been, and continues to be, a product of state law. In contrast to patent law, trade secret law covers all forms of information (whether patentable or not). Further, neither application nor registration is needed for trade secret protection, and there is no state agency in charge of reviewing or approving trade secrets. Rather, trade secret law as such covers any information that is secret, valuable, and protected. Trade secrets have no expiration date, and can last as long as the information is kept secret. This could be in perpetuity, over a hundred years, as in the case of the famous *Coca-Cola*® formula; or a day, in the case of the forgetful scientist who accidentally left his notebook out in the open for all in public to see. Moreover, trade secrets do not protect against independent discovery or reverse engineering by anyone, including your competitors.

Despite these significant differences, patents and trade secrets are nonetheless closely intertwined and capable of being used in conjunction to fully protect information. They not only substitute each other in some circumstances, but can also complement each other. Therefore, understanding the origins of patents and trade secrets, the protections they offer, and the legal reach and scope of each enables an inventor or a company to consider and secure the best possible protection for their information.

4. Frequently, this concept is incorrectly articulated as a right to make, use, and sell the patented invention. Instead, the right obtained is one of exclusion only, and always subject to other third party rights that could dominate or cover your patented invention.

5. This issue is both fact and law intensive. It may depend on when the invention was conceived and reduced to practice, whether the applicable law is pre- or post-AIA, and/or whether prior user and/or intervening rights may exist.

II. Development of Patent Law

Patent law is the oldest of the different forms of intellectual property law in the United States. The word “patent” comes from the Latin word *patere*, which means, “to be open.” It arose in the fourteenth century in Venice as an open letter of privilege from the sovereign. The patent system was later introduced to Great Britain in the sixteenth century, when a minister used patent grants to induce foreign artisans to introduce continental technologies into England. Thus, what later became the Anglo-American patent system originated from what today would be considered strategic international policy, where immigrants with desirable skills and knowledge were lured by the promise of an exclusive privilege.⁶

The first U.S. patent statute was passed in 1790,⁷ and the first patent was issued shortly thereafter for a process making pot ash from wood ashes.⁸ However, the U.S. patent system did not grow into its full stature until the 1836 revision,⁹ when a formal patent examination system replaced the previous patent registration system. Since 1836, the patent system in the U.S. has grown dramatically in the number of inventions applied for, the number of patents issued, and the number of patents litigated.¹⁰ As demand for patents grew, the patent system developed new rules, such as the requirement for an “inventive leap,” now known as the obviousness standard, to limit the number of meaningless patents issued.¹¹

Not surprisingly, this rapid ascent of patents issued in the U.S. resulted in several pendulum swings of public opinion for more or less protection. In the early twentieth century, for example, many people resented large companies with large patent portfolios, and believed that they were too powerful. A number of large companies had patent portfolios that dominated their respective industries, and allegedly suppressed competition. Courts during this period were less willing to enforce patents, and more willing to punish patentees who exceeded the scope of their patent rights. In the 1940s, the pendulum swung back in favor of stronger patent protection as the nation pooled all of its resources for the war efforts, and called on inventors to develop new technology. Due to mandatory cooperation initiatives adopted by

6. See Edward C. Walterscheid, *The Early Evolution of the United States Patent Law: Antecedents*, 76 J. PAT. & TRADEMARK OFF. SOCIETY 697 (1994) (Part I).

7. See Patent Act of 1790, Ch. 7, 1 Stat. 109-112 (April 10, 1790).

8. Henry M. Paynter, *The First Patent*, INVENTION & TECHNOLOGY (1990), available at https://www.me.utexas.edu/~longoria/paynter/hmp/The_First_Patent.html.

9. See Patent Act of 1836, Ch. 357, 5 Stat. 117 (July 4, 1836).

10. B. Zorina Khan, *Property Rights and Litigation*, THE JOURNAL OF ECONOMIC HISTORY, Vol. 55, No. 1(1995) p.63. (“From 1790 to 1860, a total of 795 patent cases were reported or cited in judicial decisions”); Federal Judicial Workload Statistics During the twelve month period ended December 31, 1985, A-19 (548 patent cases filed in the year 1985); Lex Machina report showing District Court patent cases during 2014 (5004 patent cases filed in the year 2014).

11. Fast-forward to the 20th and 21st centuries, complaints about the quality of some U.S. patents remains a thorn in the side of the USPTO. Under the new AIA post grant provisions, there are now more cost effective and proven methodologies to marginalizing these patents.

the federal government during wartime, patentees had neither the time nor the ability to exclude domestic competitors from using their patented technology. However, that all changed after the war because patent protection remained strong and members of Congress continued to favor a strong patent system. This pro-patent attitude resulted in the codification of the various patent laws from the previous 80 years into the first meaningful codification of the twentieth century, embodied in the historic 1952 Patent Act.¹²

But in subsequent years, too many patents were issued without much scrutiny and so, in the 1960s, the public opinion again reversed course against patents, as the apparent standards for obtaining a patent at the USPTO reached new lows. As a result, issued patents were not upheld in the courts, and the different circuit courts routinely reached different conclusions for patent infringement and validity issues on similar sets of facts. This made predictability a high risk gamble and forum shopping a primary litigation tactic. Arguably, the value of patents during this period waned.¹³

In 1982 Congress sought to improve the quality and importance of patents, and passed the Federal Courts Improvements Act, which created the Court of Appeals for the Federal Circuit (“CAFC”).¹⁴ Under this Act, the CAFC had exclusive jurisdiction over all patent appeals from district courts, and certain other appeals from the PTO and other government courts, resulting in a more unified treatment of patent cases from different regional district courts. The CAFC worked tirelessly to strengthen and expand the scope of patent protection. Most recently in 2011, Congress passed the Leahy-Smith America Invents Act (“AIA”), the single largest patent law reform since the Patent Act of 1952.¹⁵ The AIA introduced significant changes to the United States patent system, the most significant being the creation of a first-to-file system rather than what had been a first-to-invent system, and the creation of new venues for challenging existing patents.¹⁶

Despite these many pendulum swings, the original purpose of the patent law remains the same, which is to “promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”¹⁷ Congress achieves this balance, in part, by giving patent owners the right to exclude others from making, using, and selling the patented invention for a specified period of time in exchange for inventors sharing their invention with the public in the form of a patent

12. See Robert P. Merges, *One Hundred Years of Solicitude: Intellectual Property Law, 1900-2000*, 88 CAL. L. REV. 2187 (2000).

13. Robert P. Merges et al., *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE*, 110 (3d ed. 2003).

14. *Id.* at 111.

15. See Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

16. The most notable being the updated and improved post grant procedures. See *infra* note 11.

17. U.S. Const. art I. §8.

application, and ultimately a patent.¹⁸ While the U.S. patent statute is, relatively speaking, straightforward, it does not by itself ensure a patent system that perfectly balances societal and personal interests. For example, the patent grant can sometimes offer more quid than quo,¹⁹ because patent owners may sue for infringement not only those who “steal” (or copy) the patented invention but also those who did not steal the patented invention; for example, those who independently developed the same invention.²⁰ But the “quo” should not be underestimated because the patent grant itself is not self-policing. It requires the patent owner to find the infringers and then assert his patent to seek compliance, a feat (in effort, time, and expense) great enough to prevent some patent owners from pursuing patents in the first place.

III. Development of Trade Secret Law

Although confidential business information has been maintained and treated as highly confidential and kept under lock and key (an early predecessor of trade secrets) long before patents ever existed, trade secret law itself is a more recent phenomenon. At least one scholar believes that the concept of a legally protectable trade secret can be traced back to the Roman law, where a slave was prohibited from stealing the trade secret of his master and giving it to a competitor.²¹ That concept later manifested itself as a body of law protecting business owners during the Renaissance, and was subsequently codified during the industrial revolution by European nations to deal with the newfound mobility of labor.

In the United States, courts first recognized trade secrets as a cause of action in 1837, in *Vickey v. Welch*.²² In *Vickey*, the seller of a chocolate mill contracted to sell the mill, along with the secret of making chocolate, but later refused to tender to the buyer the written promise not to disclose his secret to anyone else. The seller argued that such a promise would be an unlawful restraint of trade. The Massachusetts court disagreed with the seller, ruling that the promise would have “no consequence to the public whether the secret art be used by the plaintiff or by the defendant.”²³

A collective body of common law that developed after 1837 on trade secret law was summarized in 1939, and categorized in the Restatement (First) of Torts. In it, the definition of a trade secret was “any formula, pattern, device or compilation of information which is used in one’s business, and which gives him

18. This quid pro quo system is derived from the English patent system and retains the elements of its spirit.

19. Literally translated, *quid pro quo* means “what for what” or “something for something”; it does not follow, however, that the exchange is of equal value.

20. The so-called “innocent infringers,” lacking any real intent to infringe but nonetheless culpable under the statutory scheme.

21. See A. Arthur Schiller, *Trade Secrets and the Roman Law: The Actio Servi Corrupti*, 30 COLUM. L. REV. 837, 838-839 (1930).

22. *Vickey v. Welch*, 36 Mass. 523, 527 (1837).

23. *Id.*

an opportunity to obtain an advantage over competitors who do not know or use it.”²⁴ All forms of information were covered, such as “a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers.”²⁵

The 1939 definition of a trade secret was widely accepted by both state and federal courts, initially providing consistent court decisions on issues involving trade secrets. Over time, however, the courts’ reasoning and outcomes in cases with similar facts began to diverge. The resulting confusion in trade secret cases was further exacerbated by the Second Restatement of Torts published in 1979, which altogether eliminated reference to trade secrets on the grounds that the law of trade secrets had developed into an independent body of law that no longer relied on general principles of tort law. However, and despite this development, the original Restatement (First) of Torts remained a major influence on trade secret law because it had been adopted in many court decisions.

Thus, in 1985, in an effort to return some uniformity to the law of trade secrets across states and in state and federal courts, the National Conference of Commissioners on Uniform State Laws issued the model Uniform Trade Secrets Act (“UTSA”). The UTSA is not binding upon the states, but merely is intended to serve as a guide to those who wish to draft statutes to protect trade secrets. States that choose to adopt the UTSA may do so in whole or in part, and are free to make modifications to the adopted provisions. As of 2014, 48 states and the District of Columbia have adopted some form of the UTSA. However, those states have each modified the UTSA, and as a result, despite having a common origin, no two states have identical trade secret laws. Massachusetts and New York have not adopted the UTSA, and so far protect trade secrets under their state statutes or the common law.

Under the UTSA, a trade secret is:

information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.²⁶

The UTSA definition differs from the definition in the Restatement (First) of Torts in a few significant ways. First, the USTA does not require that the information be in use. Thus, it protects information such as failed research and

24. RESTATEMENT OF TORTS, Explanatory Notes § 757 cmt. b at 5 (1939).

25. *Id.*

26. Uniform Trade Secrets Act with 1985 amendments § 1 (1985), available at http://www.uniformlaws.org/shared/docs/trade%20secrets/utsa_final_85.pdf.

knowledge of what not to do, and any information not currently used but which has potential economic value. Also, unlike the first Restatement, the UTSA requires the plaintiff to prove that it took reasonable efforts to maintain secrecy.

In 1995, the American Law Institute published the Restatement (Third) of Unfair Competition, which summarized the common law of trade secret. The definition of trade secret in the Restatement (Third) of Unfair Competition follows the UTSA definition of trade secret, defining a trade secret as “any information that can be used in the operation of a business or other enterprise and that is sufficiently valuable and secret to afford an actual or potential economic advantage to others.”²⁷

As a consequence of the above evolution, the trade secret law followed today has two primary sources: state law, as embodied in the various state enactments of the UTSA, and common law, currently codified in the Restatement (Third) of Unfair Competition.

U.S. protection for trade secrets is also compelled by the U.S.’s membership in the World Trade Organization (WTO) and adherence to the intellectual property agreement in the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) Trade-Related Aspects of Intellectual Property Rights (TRIPS) in 1994. The TRIPS Article 39, paragraph 2, requires member nations to provide a means for protecting information that is secret, commercially valuable because it is secret, and subject to reasonable steps to keep it secret.²⁸

IV. Intersection of Patent law and Trade Secret Law

The two bodies of law covering patent and trade secret law serve two very different purposes in society, something that may be apparent from the different origins of each. Patent law mainly serves to promote the sharing of information, while the latter mainly serves to protect an individual or a company from theft, and therefore promotes secrecy. And because the former is intended to benefit all of society, it is controlled by the federal government and is susceptible to the government’s ever-changing policies and goals. The latter, on the other hand, is affected less by these ups and downs and is less susceptible.

Consequently, trade secret law has evolved more slowly because it is not as susceptible to the drastic pendulum swings that have affected the patent system. With the single exception of the Economic Espionage Act passed by Congress in 1996, the federal government has essentially stayed away from creating any trade secret law. But because of the close relationship between trade secrets and patents, federal patent cases and federal patent laws do have the ability to impact trade secrets and their use.

For example, the reform implemented under the AIA of 2011 introduced significant and historical changes to the U.S. patent system, but also mentioned trade secrets. This one instance is significant for trade secrets even though it was

27. RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 (1995).

28. See Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, 1869 U.N.T.S. 299, art. 39, available at http://www.wto.org/english/tratop_e/trips_e/t_agm3d_e.htm.

only mentioned once in the AIA. Specifically, the AIA requires the Director of the USPTO to submit a report to Congress with “[a]n analysis of legal and constitutional issues, if any, that arise from placing trade secret law in patent law” stemming from “the operation of prior user rights in selected countries in the industrialized world.”²⁹ Thus, although the AIA did not create a federal statutory basis for trade secret law to exist within the patent laws, the Congressional request clearly acknowledges the inevitable interplay between patents and trade secrets.

Moreover, it is very clear under the AIA that trade secrets and trade secret laws are anticipated to arise under the prior user defensive provisions of the new law. As noted, the most prominent change enacted under the AIA was the switch from a system that grants a patent to the first *inventor* to a system that grants a patent to the first inventor to *file*. Under pre-AIA, a first inventor was given the chance to obtain a patent on an invention even if a second inventor filed for the same invention first, if that first inventor could prove that he had possession of the invention before the second inventor.³⁰ In a post-AIA under similar facts, the first inventor loses his right to a patent because the second inventor filed first, even though the first inventor had possession of the invention before the second inventor.

This reverse outcome under the AIA arguably affects the use of trade secrets because the pre-AIA first inventor had the option to keep his invention a trade secret for up to twelve months before filing a patent application on the invention.³¹ Post-AIA, the first inventor would not be able to use the invention as a trade secret without risking a second inventor (the late-comer) beating him to the patent office. In other words, in the post-AIA world, the first inventor would not be able to seek patent protection if the latecomer files first.³² While this change incentivizes the inventor to pursue patent protection over trade secrets, other AIA changes, some of which are discussed in the next section, might just provide the opposite incentives.

As illustrated briefly above, there is a delicate and sometimes conflicting balance between patents and trade secrets. Despite this, as noted at the beginning of this article, patents and trade secrets coexist to

29. See generally, U.S. PATENT & TRADEMARK OFFICE, REPORT TO CONGRESS: REPORT ON THE PRIOR USER RIGHTS DEFENSE 1-2 (2012).

30. This is an oversimplification of the legal and factual inquiries required to be analyzed, such as prior conception, reduction to practice, abandonment, concealment, prior public use, and commercial activity. This type of information is frequently obtained from documents, including lab notebooks, interviews/depositions with the inventors and other involved parties, and documentary custodians.

31. In this scenario, a trade secret suggests something of economic (i.e., commercial) value, and under pre-AIA law, such a secret, commercial use triggered a one year bar date under 35 U.S.C. § 102(b) from the first use for the inventor to file for patent protection if patent protection was desired.

32. Post-AIA law provides some prior user rights (defenses) against patented inventions. See, e.g., 35 U.S.C. 273 (2011).

protect information. In fact, the co-existence of patent law and trade secret law was blessed by the Supreme Court in *Kewanee Oil Co. v. Bicron Corp.*³³ In *Kewanee*, the Court found that the policies and purposes of the patent laws and state trade secret laws were essentially compatible and could coexist in most, if not all, of the areas where they interface. The court observed that:

[t]rade secret law and patent law have co-existed in this country for over one hundred years. Each has its particular role to play, and the operation of one does not take away from the need for the other. Trade secret law encourages the development and exploitation of those items of lesser or different invention than might be accorded protection under the patent laws, but which items still have an important part to play in the technological and scientific advancement of the Nation. Patent law promotes the sharing of knowledge, and the efficient operation of industry; it permits the individual inventor to reap the rewards of his labor by contracting with a company large enough to develop and exploit it.³⁴

A. Choosing between Patents and Trade Secrets

The *Kewanee* court examined three categories of subject matter that an inventor would consider in choosing between patent protection and trade secret protection: “(1) the trade secret believed by its owner to constitute a validly patentable invention; (2) the trade secret known to its owner not to be so patentable; and (3) the trade secret whose valid patentability is considered dubious.”³⁵ For the category of subject matter “known to its owner not to be so patentable,” the court held that there is no conflict or preemption of patent law by state trade secret law because patent law would never be applicable to those inventions. For the category of subject matter “whose valid patentability is considered dubious,” the court held that on balance, “[e]liminating trade secret law for the doubtfully patentable invention is thus likely to have deleterious effects on society” and thus presents no conflict with patent law.³⁶ Finally, for the category of subject matter “believed by its owner to constitute a validly patentable invention,” the Court held that trade secret law “presents no reasonable risk of deterrence from [filing a] patent application.”³⁷

While *Kewanee* remains good law, some of the court’s presumptions may be less true today. For example, the court appeared to believe that while an inventor may try to pursue a patent for dubious patentable subject

33. *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 493 (1974).

34. *Id.* at 493.

35. *Id.* at 484.

36. *Id.* at 489.

37. *Id.*

matter, in the case of subject matter believed to be patentable, “[t]he possibility that an inventor who believes his invention meets the standards of patentability will sit back, rely on trade secret law, and after one year of use forfeit any right to patent protection . . . is remote indeed.”³⁸ In fact, the Court’s holding that trade secret law does not preempt federal patent law appeared to be premised on this belief:

[i]f a State, through a system of protection, were to cause a substantial risk that holders of patentable inventions would not seek patents, but rather would rely on the state protection [trade secret], we would be compelled to hold that such a system could not constitutionally continue to exist. In the case of trade secret law no reasonable risk of deterrence from [filing a] patent application by those who can reasonably expect to be granted patents exists.³⁹

Over four decades later, under circumstances suggestively proscribed by the Supreme Court in *Kewanee*, trade secret law and patent law continue to co-exist, each as vigorous as the other. Although patent law continues to offer advantages over trade secret law, the possibility that a company may choose to pursue trade secret protection in lieu of patent protection is not remote or even surprising.⁴⁰ Each continues to serve a different purpose, and each offers advantages that the other does not offer.⁴¹ In fact, patents and trade secrets have become more intertwined and codependent than ever before. Some argue that recent changes in patent law have created more incentives to use trade secrets over patents.

Not surprisingly, in light of these changes, a company’s analysis and decision tree whether to pursue trade secrets or to pursue patents have become more important and nuanced. The choice between patent protection or trade secret protection is obvious when one form of protection is unavailable, but most of the time the choice between patents and trade secrets requires a careful evaluation of a number of factors, concerns, consequences, and changes in the law.⁴² Sometimes the “right” choice for a company in today’s world would surprise the *Kewanee* Court.

38. *Id.* at 490.

39. *Id.* at 489.

40. The assumption here is that both forms of protection are available but only one, trade secrets, provides the desired benefits to the owner or is the better business option.

41. A good argument can be made for certain innovative (patentable) information that it serves at least one common purpose, namely to protect the innovation, albeit under different legal principles already described herein.

42. Because the AIA is new, it will take many years to establish a compelling body of case law that interprets the new provisions to provide clear legal guidance.

To illustrate some of these points, we consider two hypothetical companies: Company A is a large pharmaceutical company that makes drugs, and company B is a startup high-tech company that makes electronic devices and software applications. While companies A and B may consider the same factors in choosing between trade secret and patent protection, the different nature of their products and the market place may take the different companies down different paths. For this illustration, we discuss the following factors in turn: 1) patentability, 2) term of protection, 3) enforcement considerations, 4) injunctions, 5) prior user rights, 6) disclosure, and 7) costs. While not exhaustive, these seven factors are likely the most relevant and should almost always be considered in a trade secret versus patent analysis.

1. *Patentability*

A first, and perhaps most important, inquiry is to determine whether the information under consideration is patentable. If it is not, or unlikely patentable, a company's resources are better spent on seeking trade secret protection. Although most requirements for patentability, such as usefulness, novelty, and written description can be determined well before the Patent Office makes its official determination of patentability, predicting whether an invention is nonobvious is less straightforward.⁴³ And if the information is not capable of, or has a low likelihood of, being kept a trade secret then a patent may be the only recourse protection. Moreover, deciding this patentability issue first has the potential of saving businesses significant wasted costs.

Patent eligibility

Patent-eligible subject matter is information that 1) belongs to one of the four statutory categories of patent-eligible subject matter—process, machine, manufacture or article of manufacture, or composition of matter, and 2) which do not embrace a judicially recognized exception—laws of nature, physical phenomena, or abstract ideas. Some information is easily determined as patent ineligible. For example, customer and supplier lists, business plans, mathematical formulas, and negative know-how (knowing what not to do) are generally not patent eligible. Other information, such as what constitutes a law of nature or an abstract idea, is less clear on patent eligibility.

43. Cases like *KSR* and its predecessors have expanded the rationales for a finding of obviousness by the USPTO and courts, making a pre-filing patent application analysis much more difficult. As noted *supra* in note 6, and discussed in the next section, patent eligibility threshold analyses are complex, and the current jurisprudence from the courts, and guidance from the USPTO, are in a state of flux between unreasonable and unworkable.

Recent Supreme Court decisions on patent eligible subject matter suggest that the scope of patent-eligible subject matter is shrinking. First, in *Bilski v. Kappos*, the Supreme Court revised the test for determining patent eligibility and effectively limited the patent eligibility of business methods.⁴⁴ Then, in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*,⁴⁵ the Court applied the law-of-nature exception and stated that a method for determining dosing ranges of drugs was patent ineligible subject matter, and placed into question many pharmaceutical methods (diagnostics and other technologies) that were once thought to be patent eligible. In *Association for Molecular Pathology v. Myriad Genetics, Inc.*,⁴⁶ the Court extended the law-of-nature exception to certain isolated DNA holding those as patent-ineligible. Most recently, in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*,⁴⁷ the Court held that claims to “generic computer implementation” of abstract ideas are not eligible for patent protection.

These recent cases cast doubt on the patent eligibility and therefore the validity of countless granted patents. Many patents have already fallen prey to these patent-killing seminal cases. For example, because of the Court’s holding in *Alice* that generic computer implementations of abstract ideas are patent-ineligible, many software patent owners could be holding potentially worthless, invalid patents (patent-ineligible).⁴⁸ Since *Alice*, over a dozen patent cases involving computer-implemented business methods have been considered by the Federal Circuit, and all but one have been invalidated based on *Alice*.⁴⁹

While the current trend of patent court decisions appears to limit the scope of patent-eligible subject matter, it has not always been the case. Business methods, the patent-eligibility of which was called into question by *Bilski* and *Alice*, were not permitted under a theory of being patent-ineligible subject matter. But in 1998, the Federal Circuit in *State Street Bank & Trust Co. v. Signature Financial Group*, held business methods as being patent-eligible subject matter.⁵⁰ Remember the “pendulum”? But now, after the *Bilski* and *Alice* decisions, the many business method patents

44. *Bilski v. Kappos*, 561 U.S. 593, 608-09 (2010).

45. *Mayo Collaborative Servs. v. Prometheus Labs. Inc.*, 132 S.Ct. 1289, 1294 (2012).

46. *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2111 (2013)

47. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2352 (2014).

48. Software patent claims frequently were written using general and vague language in order to obtain a broad claim scope, making the invention appear even more abstract than it is.

49. *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014). This number is even higher if you take into account the number of AIA post grant CBMs that have been invalidated by the USPTO.

50. *State Street Bank & Trust Co. v. Signature Fin. Grp.*, 149 F.3d 1368, 1370 (Fed. Cir. 1998).

that issued under the blessing of State Street are again suspect, and many likely are invalid as being patent ineligible. Here today, gone tomorrow, depending on the changing government policies and goals swayed by public opinion. Inventions that only several years ago were considered patent-eligible are today patent-ineligible.

These changes have very practical considerations for company A and company B. For example, company A's could have an invention involving an isolated gene or a diagnostic test embracing a natural law or phenomenon, and company B's invention could involve computer software that utilizes facial recognition technology. Both companies could each have an inventive business method of marketing their inventions. Given the current state of law in these technological areas, and the new AIA provisions, however, companies A and B may wish to consider foregoing patent protection at least until the law is more settled, and instead consider the merits of pursuing trade secret protection. Clearly, trade secret protection is more desirable for inventions that are potentially patent ineligible. Any information can be protected as a trade secret. An abstract idea, for example, was recently confirmed by the California Court of Appeals to be protectable trade secret subject matter.⁵¹

Obviousness

An invention must be deemed nonobvious to be granted patent protection, and patent examiners routinely reject patent applications based on grounds that the inventions claimed are obvious. In 2006, in *KSR International Co. v. Teleflex Inc.* (“*KSR*”) the Supreme Court gave patent examiners and the courts more weapons to shoot down inventions as obvious to one of ordinary skill in the art.⁵² Prior to *KSR*, an invention was rejected by a patent examiner as being obvious only if the examiner found a reference or combination or references containing a teaching, suggestion, or motivation that would lead one of ordinary skill in the art to arrive at the invention. Post-*KSR*, an invention could be rejected as being obvious if, among other things, the patent examiner considered the invention predictable, within the routine design skill of one of ordinary skill, or “obvious to try,” even in the absence of any explicit teaching, suggestion, or motivation. Consequently, more and more inventions now fail to qualify for patent protection because they are deemed obvious under the new standards created by *KSR* and its progeny.

Although an inventor by law can appeal the examiner's obviousness rejection to the Patent Trial and Appeals Board (“PTAB”) or even to the CAFC, the appeal process is lengthy, costly, and does not guarantee a win for the inventor. In fact, anecdotally and based on some very reliable data, the odds

51. *Altavion, Inc. v. Konica Minolta Sys. Lab. Inc.*, 2014 WL 1846104 (Cal. Ct. App. May 8, 2014).

52. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

may be against the patent owners.⁵³ The post grant proceedings enacted under the AIA have been an effective killing ground for granted patents. It may even be the case going forward that most patents will be granted only for the truly inventive and game-changing ideas.

Even though some of the best and, ultimately, most patent worthy ideas are simple solutions that seem obvious in hindsight, companies A and B may wish to avoid the sometimes lengthy and almost always very expensive road to proving that their simple inventions are nonobvious. Thus, companies A and B may wish to consider, under certain circumstances, protecting their inventions as trade secrets, even if they ultimately could be patented.⁵⁴ The money spent on patent procurement, enforcement, and patent challenges would be better spent on research and development of future generations of inventions. At the same time, they could be kept as a trade secret for very little relative money.⁵⁵

2. *Terms of Protection*

Patent terms are expressed as twenty years from the application filing date or earliest priority date. Realistically, because patents are not granted the day they are filed, the period of time a granted patent may be enforced is less than this 20 year term, and in some cases substantially less.⁵⁶ The ideal term of protection needed for any given invention may depend primarily on the technology in question. For example, for company B, an innovative and patentable electronic component used in a smartphone device may have a lifespan of as little as one to three years because it becomes obsolete and is replaced by next generation of technology. In these cases, the technology's lifespan is far less than the term of most issued patents. In contrast, for company A, many patented and approved life science inventions do not reach the market until well into the patent term and often risk challenges after FDA approval.⁵⁷

53. USPTO, *Inter Partes Review Petitions Terminated to Date* (Oct. 16, 2014), available at http://www.uspto.gov/ip/boards/bpai/stats/inter_partes_review_petitions_terminated_updated_20141016-.pdf.pdf.

54. However, readers should not lose sight of the fact that some patentable inventions may not be worth protecting as a trade secret. The information/invention must be capable of being kept a secret, and not susceptible to reverse engineering. Some technologies by their nature, such as secret processes, e.g., *Coca Cola*®, may not be susceptible to being reversed engineered, but no matter how difficult it may be to reverse-engineer a technology if there is enough money involved assume that it will be. Some technologies are obsolete in the span of 1 year-5 years, and utility patent protection in those circumstances may be a reckless endeavor, while trade secret protection has great value.

55. See *supra* note 48.

56. Patents are only enforceable once granted, so the patent terms may vary depending on the amount of time an application is pending in the USPTO. Although beyond the scope of this article, patent terms vary widely based on technologies, USPTO backlogs, and a myriad other factors. The terms of most granted patents are likely of sufficient duration to at least recoup the invested costs of creating the technology and securing the patent(s) if they are commercialized and/or otherwise monetized.

57. For purposes of illustration, these are oversimplifications, but nonetheless useful to illustrate two opposite ends of the spectrum.

In the case of a blockbuster drug, company A can protect portions of its drug and know-how regarding any improved manufacturing processes as trade secrets without violating any regulations, and thus could substantially benefit from its innovations long after the expiration of its patent(s). Of course, as already noted, the information can be protected as a trade secret only so long as it is kept secret, until the information is reverse engineered, or otherwise independently developed by others. In the case of company B's smartphone component, the patent term should be more than adequate to protect the use of that component before it is replaced by newer technology.⁵⁸ Large companies with financial resources are able to extend patent protection for their key technologies by continuously innovating in that space and then seeking follow-on patents. Smaller companies, like company B, may not have access to the same financial resources to pursue this strategy.

Trade secrets, on the other hand, offer a more flexible approach to information (technology) protection, and do not require the cooperation of a sometimes stubborn governmental agency such as the USPTO. For example, the scope of the trade secret being protected can evolve together with the information or product as it undergoes changes and improvements. Thus, a trade secret is more effective at protecting the subsequent improvements and evolution of an invention without incurring significant additional costs and/or efforts.

3. *Enforcement*

To enforce a patent, a company must prove infringement. But depending on the technology and type of protection obtained, infringement may be difficult to prove. For example, processes and methods of manufacturing a drug can be difficult or sometimes impossible to detect without the discovery afforded by an expensive litigation. Thus, if company A held a patent on the process or method of manufacturing a drug, it may have to search for potential infringers with little or no hard evidence of infringement, other than circumstantial evidence of the existence of the same drug being manufactured, before the filing of a complaint. Successful outcomes in these types of situations are less predictable owing to heightened pleading requirements to support a cause of action for patent infringement.⁵⁹ Thus, some companies in these circumstances may intentionally pursue trade secret protection for processes and methods of manufacturing a product if infringement is difficult to detect.⁶⁰

58. Of course the challenge here may be that the technology becomes obsolete before a patent is ever issued. This factor alone strongly suggests consideration of trade secret protection if it is available.

59. See *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 545 (2007).

60. Of course the risk in these situations is that an issued patent to another party may prevent the trade secret owner from making or using her technology absent a valid defense such as prior user rights.

To show literal infringement of a patent, the accused product must embody each and every limitation of a single claim. If the accused product does not meet a single limitation of a claim, however minor, the accused product does not literally infringe.⁶¹

Proof of trade secret misappropriation, in contrast, can be based on circumstantial evidence.⁶² The accused product or method need not be identical to the stolen information—a showing of unauthorized access and substantial similarity is sufficient. And unlike patent cases where a defendant can design around the patent to avoid infringement, a trade secret defendant's design around attempts will not suffice, because designing around a trade secret cannot undo the knowledge and unauthorized use of the trade secret to facilitate the design around.

Patent enforcement may also be difficult where the theft (infringement) occurs abroad, by foreign individuals or entities in jurisdictions that do not enforce patents. This is becoming an increasing threat for many companies due to the rapid internationalization of businesses and their practices. U.S. patents cannot be enforced abroad, and even if the company has applied for and obtained patents in a foreign jurisdiction, enforcement of those patents can be challenging owing to different legal systems, procedures, and social norms and bias.

Similarly, trade secret enforcement proceedings on foreign soil are subject to the same barriers as patent enforcement noted above. Finally, despite improved protections under new laws and business and political doctrines of international reciprocity for IP throughout the developed and developing world, businesses engaged with partners (JV or otherwise) in developing countries, such as China for example, still believe that their technology, trade secrets, and/or other confidential information shared with their developing country counterparts under confidentiality and non-disclosure agreements will be taken without any legal consequence or recourse. Anecdotally, this is just part of the risk-reward business analysis a company considers before proceeding.

4. *Injunctions*

If either company A or company B generally considers money damages as inadequate, trade secret protection may be the better option. In 2006, the Supreme Court raised the threshold for obtaining injunction for patent infringement.⁶³ What was once an automatic injunction upon a finding of patent infringement, became instead discretionary relief that is granted only upon the

61. Although equivalents may be relied on to show patent infringement, in practice plaintiffs rarely win on equivalents because that doctrine is substantially encumbered by a number of limitations. See generally Lee Petherbridge, *On the Decline of the Doctrine of Equivalents*, 31 *CARDOZO L. REV.* 1371, 1375 (2010).

62. *Greenberg v. Croydon Plastics Co.*, 378 F. Supp. 806, 814 (E.D. Pa. 1974).

63. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

showing of four factors: (1) whether the plaintiff suffered an irreparable injury; (2) whether remedies available at law are inadequate to compensate for that injury; (3) whether considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) whether the public interest would not be disserved by a permanent injunction.⁶⁴ The results were almost immediate, with substantially fewer injunctions.⁶⁵ By reducing the threat of an injunction, the Court in the eyes of some decreased the potential reward for asserting patent infringement and the risk in defending against patent infringement charges.⁶⁶

By contrast, an injunction remains the primary form of relief in trade secret cases because the law recognizes that once a trade secret is revealed it can never be recovered. The standard for granting an injunction in trade secret cases is therefore considered low.⁶⁷ Finally, injunctions in trade secret cases are not limited to actual misappropriations but also threatened misappropriations.⁶⁸

5. *Prior User Rights*

Pre-AIA, a prior user who kept his invention a trade secret was potentially liable for infringement of a patent for the same invention that was later independently developed and patented by another party.⁶⁹ Post-AIA, there is a “prior user right” defense that allows a prior user to continue using the invention without risking infringement of a later obtained patent.⁷⁰ The defense is now available to all prior users to defend against later patents covering their inventions.⁷¹

However, the prior user defense is not without significant limitations. For example, the prior user must establish that they used the invention commercially in the U.S., more than one year before the filing date of the patent application or the public disclosure date of the patented invention.⁷² Moreover, the defense cannot be licensed, assigned, or transferred, other

64. *Id.*

65. *See, e.g.,* Ernest Grumbles, III et al., *The Three Year Anniversary of eBay v. MercExchange: A Statistical Analysis of Permanent Injunctions*, INTELLECTUAL PROPERTY TODAY (2009).

66. This notion that injunctions are the exception not the rule is premised on the belief that the relative positions of the parties in dispute can be resolved by money damages.

67. *See, e.g.,* Pamela Samuelson, *Principles for Resolving Conflicts Between Trade Secrets and the First Amendment*, UC Berkeley Public Law Research Paper No. 925056, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=925056.

68. *See Pepsico v. Redmond*, 54 F.3d 1262, 1267 (7th Cir. 1995)

69. A limited prior user defense was only available for business method patents pre-AIA. *See* § 5(a), 125 Stat. at 297. *See* App. B (section 273 under the AIA is reproduced for reference).

70. *See, e.g.,* 35 U.S.C. 273 (2011).

71. *Id.*

72. *Id.* at (a)(2).

than in connection with an assignment or transfer of the entire business. Additionally, the defense is only applicable to the regional site where the invention was initially used. A prior inventor who used a secret manufacturing process in California, for example, which is later patented by another party, cannot later add a plant in Virginia without being potentially liable for infringement committed at that plant. Also, the AIA provides an explicit exception to the defense for patents owned by or assigned to universities and their affiliates. For example, if a prior user commercially utilized a secret synthesizing method, and a university later patented the same method, the prior user is liable for infringement of the later patent. The university exception was created to help universities that “depend on publication and disclosure to further research and innovation.”⁷³

Despite these limitations, prior user rights give companies A and B a powerful defense against what in the old days (pre-AIA) used to be a major shortcoming to using trade secrets instead of seeking patent protection. It could even be argued from this change enacted by the AIA that the government acknowledged and even sanctioned the choice of protecting patentable subject matter as a trade secret, something that would have surprised the *Kewanee* Court.

6. Disclosure

Trade secrets and the laws protecting them are premised on the non-disclosure of economically valuable information. If a trade secret is embodied in a product that the public can reverse engineer, or is at risk of accidental disclosure, then trade secret protection is not a good candidate for protecting the information. In these circumstances patent protection may be the only recourse for patentable subject matter. However, the public disclosure required under the patent laws for compliance with the written description requirement could also discourage some companies from pursuing patent protection. For example, companies A and B may prefer to protect their patentable inventions as trade secrets to prevent the flow of information to their competitors. In contrast to trade secrets, the disclosures in patent applications, once published, can give the competition important strategic insights into what a company is doing or may be pursuing. Such competitive intelligence might give bigger and better financed rivals a competitive head start in developing a competing product.⁷⁴ Moreover, rivals may use this information to design around or even make patentable improvements to the company’s inventions. Although the U.S. patent system was created for just this purpose—to share knowledge and spur innovation—some companies may elect to stay competitive by not publically sharing their knowledge base, and are willing to take the risk of letting a third party file first under the AIA.

73. 157 Cong. Rec. S5402, S5427 (statement of Sen. Kohl).

74. Ignatius Horstmann, et al., *Patents as Information Transfer Mechanisms: To Patent or (Maybe) Not to Patent*, 93(5) J. OF POL. ECON. 837 (1985).

7. *Costs*

At the end of the day, regardless of what a company believes is the best and most effective protection for its information (innovations, invention(s)), it will likely choose the option(s) that it can afford. It is generally true that procuring patents is, relatively speaking, far more expensive than creating a trade secret.⁷⁵ Patent prosecution fees and costs, depending on the length of prosecution and the countries in which protection is sought, can escalate quickly and wander into the \$100,000-\$200,000 plus range for a global strategy. In addition to the basic legal fees and filing costs, preliminary prior art searches and translation costs all add to the bottom line.^{76 77}

All U.S. patents, foreign applications, and foreign patents require the payment of maintenance fees (annuities) that must be paid to keep the applications/patents from becoming abandoned and/or expiring before their legal expiration date. Companies are responsible for policing their own patents and must have sufficient funds to enforce and/or defend the patent. Practically speaking, the amount of protection, or benefit, that a company gains from a patent depends on how well the company is policing third party infringement activities, and proving liability in court. These enforcement efforts all require considerable resources and time.⁷⁸

In contrast, maintaining a trade secret does not require filing anything in a patent office and, generally speaking, has no large upfront administrative costs.⁷⁹ Trade secrets historically were recommended as the low-budget

75. In this sense, we are only looking at the cost of creating the protection, e.g., the cost of drafting and filing a patent application, and then prosecuting the patent application to allowance. For patent protection, these relative costs are typically much higher. The other costs include maintenance, enforcement and defense. For a large company with many employees and trade secrets, these “other” relative costs can be substantial.

76. The AIA significantly expanded the pool of available prior art for an invention by, among other things, removing geographic and language restrictions on some prior art. See, MaCharri Vorndran-Jones, et al., *Top Five Dangers for the AIA Unwary*, *Landslide* May/June 2013, at 10, 10.

77. It is a common practice, but one that is not legally required, to retain a private search firm and conduct your own prior art search prior to filing your patent application, to help identify the most relevant prior art and thereby eliminate any expensive surprises that could undermine your application. Therefore, it would be fair to say that one goal of any patent owner is to know about the existence of prior art before his competitor does so that these potentially damaging “prior art” surprises can be minimized and the costs contained.

78. In the United States at least, one of the biggest complaints about litigation, other than its relative high costs, is the time consumption and inconveniences imposed on the litigating parties, including document discovery, depositions, and the trial.

79. See note 80. To the extent that one asks about the cost of innovation or creating the innovation (e.g., R&D costs), those costs are the same, regardless of whether you choose to protect it as a trade secret or in a patent.

alternative to protect inventions.⁸⁰ However, depending on the nature of the protected information and the size of the operation involving the protected information, maintaining secrecy can require significant resources. For example, because jurisdictions differ as to the “reasonable” security measures required for a company to qualify for trade secret protection, a large multinational company with multiple branches may have to have a very large security infrastructure to qualify as “reasonable” security measures. Depending on the nature of the information sought to be protected, this could require information security measures and networks, access restrictions, and bulletproof employee confidentiality agreements. Where the trade secret involves secret manufacturing techniques or processes, a company may need to restrict access to the building and/or modify its facilities to make them more secure against potential theft or inadvertent disclosure to the public or non-essential employees.

The costs of maintaining a trade secret in the information age are even higher. In *Sasqua Group, Inc. v. Courtney*, for example, a court held that the taking of confidential information from Sasqua Group did not amount to misappropriation of a trade secret, even though the information “may well have been a protectable trade secret in the early years of Sasqua’s existence when greater time, energy and resources may have been necessary to acquire the level of detailed information to build and retain the business relationships at issue here,” but that “for good or bad, the exponential proliferation of information made available through full-blown use of the Internet and the powerful tools it provides to access such information in 2010 is a very different story.”⁸¹ Thus, depending on the facts of a particular case, here the Sasqua Group information, companies in the information age may need to expend significant resources in sophisticated encryption, tracking, monitoring, and log-in procedures to satisfy the security measures needed for courts to consider that it has taken “reasonable” security measures to guard its trade secrets.

B. Choosing Both Patents and Trade Secrets

The analysis does not stop here. An often neglected and crucial piece of analysis is whether or not a company can use both patents and trade secrets to protect different aspects of its invention. The undisputable answer is yes! Patents and trade secrets are not incompatible but complementary, and obtaining the benefit of both can be accomplished in several ways.

80. While it may be true that there are no significant upfront maintenance costs, the costs of developing the trade secret, whether a secret process or other patentable invention, or even a non-patentable customer list developed over many, many years of blood, sweat and tears, can be substantial.

81. *Sasqua Grp., Inc. v. Courtney*, No. 10-582, 2010 U.S. Dist. WL 3613855, at *22 (E.D.N.Y. Aug. 2, 2010) report and recommendation adopted, 2010 WL 3702468 (E.D.N.Y. Sept. 7, 2010).

1. *Pre-publication*

While the publication (disclosure) of a patent application is at odds with the concept of trade secret protection, the mere submission of a patent application does not destroy any trade secret disclosed therein. After its initial filing, the first eighteen months of the life of a U.S. patent application is maintained in secrecy. During this period, as long as the trade secret described in the patent application continues to be regarded as such, and reasonable confidentiality measures are followed, the information does not lose its secrecy, and wrongful use or disclosure of the information is actionable.⁸² The outcome in a suit for such wrongful use or disclosure of that trade secret is independent of whether the patent application eventually issues as a patent, or if the patent is subsequently invalidated or is held unenforceable.⁸³

At the end of the eighteen-month period, a company may choose to avoid publication (and disclosure of the trade secret) by expressly abandoning the patent application. The company can also protect the information as a trade secret beyond the patent application's first eighteen months by filing a request for nonpublication with the patent application, but only in limited circumstances.⁸⁴ If the request is properly filed, then the application is published only after the application is allowed to mature into a patent. The nonpublication option is available for almost all inventions, and is only rescinded if the company seeks patent protection in a foreign country with a request for publication. This extra period of nondisclosure could be measured in years and is likely invaluable to a small start-up company; the early years in the research and development of a product is crucial, and the nondisclosure of the company's patent application in those years could give the company enough lead time to buffer the eventual publication and disclosure of its invention. Maintaining an application in secrecy until issuance also gives the inventor more time to evaluate the scope of protection that it will receive from the patent application. If the company is satisfied with the scope, it could choose to abandon its trade secret protection. If not satisfied, it could choose to maintain the invention as a trade secret, and continue to prosecute the patent application by filing continuation applications until it gets the scope of patent protection needed. Ultimately, of course, the company could just elect to abandon the application and maintain the information as a trade secret.

82. See *Big Vision Private, Ltd. v. E.I. DuPont De Nemours & Co.*, No. 11-8511, 2014 U.S. Dist. LEXIS 26991, at **121-29 (S.D.N.Y. Feb. 10, 2014).

83. While the "outcome" may be independent one can imagine all kinds of hypothetical scenarios where the alleged harm ranges from severe to insignificant.

84. 35 U.S.C. § 122 (2012).

2. *Different Aspects of the Invention*

Even after a patent application is published or a patent issues and is published, patent protection and trade secret protection are not mutually exclusive. Each patent is limited to one invention, and in practice, each patent may only cover a limited aspect of each invention. Thus, a patent needs only to provide a written description and an enabling disclosure for the invention *claimed*, and not all information needed to explain how to make and use the entire broad invention.⁸⁵ In this context, both patents and trade secrets can be pursued.

Accordingly, a more important inquiry for a company should be deciding which aspects of an invention to patent and which aspects to protect as trade secrets. Both forms of protection should be considered for protecting valuable innovation. As demonstrated, patents and trade secrets offer different types and levels of protections, and a company can use both to maximize the benefits afforded by these protections. One scholar observed that a combination of different intellectual property species can be used to: 1) cover additional subject matter, 2) strengthen exclusivity, 3) invoke additional remedies in litigation, and 4) stand up if a primary intellectual property right becomes invalid.⁸⁶

For example, a drug sold by company A, the process of manufacturing the drug, the drug's ingredients (the raw materials), and even the third party suppliers of the ingredients, all ultimately contribute to the success of company's drug. So for example, if a patent is obtained on the drug, it is possible that the manufacturing process (or improvements thereof) and the supplier list can both be protected as trade secrets. The raw materials also may be protectable as a trade secret. This strategy not only offers two layers of protections and remedies, it may give company A a competitive edge after the patent on the drug expires. Wyeth, for example, took advantage of this type of layered protection by obtaining an exclusive market on its blockbuster drug during the pendency of its patent on the drug, and retaining its competitive advantage after expiration of the patent by keeping the drug's manufacturing method a trade secret.⁸⁷ When its competitor acquired the manufacturing method from Wyeth illegally, Wyeth was able to successfully bring suit against its competitor for trade secret misappropriation even though the patent on the drug itself had expired.⁸⁸

85. While somewhat of an oversimplification because of the very different nature of some inventions, for example, pharmaceuticals on one end of the spectrum and electronics/computers on the other end, it nonetheless is true. Additionally, innovations or improvements following the filing of a patent application do not need to be disclosed and may be maintained as trade secrets.

86. Karl F. Jorda, *Patent and Trade Secret Complementariness: An Unsuspected Synergy*, 48 WASHBURN L.J. 1, 13 (2008).

87. *Wyeth v. Natural Biologics, Inc.*, No. 98-2469, 2003 U.S. Dist. WL 22282371, at *19 (D. Minn. Oct. 2, 2003).

88. *Id.* at *26-*29.

3. *Best Mode*

Company B could use patents and trade secrets to cover the same aspect of the same invention at the same time. This could be achieved, under certain circumstances, by protecting the best mode of carrying out a patented invention as a trade secret.

The patent statute requires that the patent disclosure “set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.”⁸⁹ Because of this requirement, many believe that the best mode of carrying out an invention cannot be kept as a trade secret if the invention is described in a patent. This is not always true. First, the “best mode” requirement applies only to the best mode “contemplated by the inventor or joint inventor.”⁹⁰ Thus, if company B, as the assignee of a patent, knows a better mode unknown to the inventor or joint inventor, company B is under no obligation to reveal it.⁹¹

Also, the best mode requirement applies to only the best mode contemplated at the time of filing the patent application. Thus, if the best mode (or, more aptly here, a better mode) of the invention was discovered after the application was filed, as is frequently the case, then it may be kept as a trade secret.⁹² In practice, the “better” mode of an invention often arises after the initial patent application is filed because applications are usually filed in the earlier stages of the research and development, and better modes of carrying out the invention are discovered or perfected afterwards.

Pre-AIA, failure to disclose the best mode was grounds to find a patent invalid or unenforceable. Curiously, although the AIA retained the requirement to disclose the best mode to the USPTO, it expressly eliminated the consequences of failing to do so. Thus, while a patent applicant must still disclose the best mode to obtain a patent, failure to do so will not render the patent obtained invalid or unenforceable.⁹³

89. 35 U.S.C. § 112 (2011).

90. *Id.*

91. *See Glaxo, Inc. v. Novopharm Ltd.*, 830 F. Supp. 871, 881 n9, (E.D.N.C. 1993).

92. *MGP Ingredients, Inc. v. Mars, Inc.*, 465 F. Supp. 2d 1109, 1115-16 (D. Kan. 2006).

93. Because the USPTO has no procedural mechanisms for investigating whether or not the best mode was disclosed in a patent application, the best mode requirement at this point appears to be at best a formality. It remains to be seen what impact, if any, the failure to disclose the best mode may have during litigation, as there is no developed case law on point. For example, does the mere formality of requiring the best mode to be disclosed during prosecution mandate legal consequences during litigation for the failure to comply with that formality? And, if so, what are those consequences?

V. Conclusion

The intersection of patents and trade secrets can be described as a delicate balance of disclosure and secrecy. The USPTO views trade secret protection as “an alternative to patent protection.”⁹⁴ But these authors believe that trade secret protection is better viewed as a complement to patent protection not as an alternative. Therefore, the proper inquiry for any company is not patent *or* trade secret, but rather how can we use both patents and trade secrets together? Understanding and using both forms of protection can provide a company the best of both worlds, and give it a competitive advantage.

94. *Office of Policy and External Affairs: Patent Trade Secrets*, USPTO, http://www.uspto.gov/ip/global/patents/ir_pat_tradesecret.jsp (last visited Mar. 23, 2015).