A PATENTLY NOVEL PLOT: FICTION, INFORMATION, AND PATENTS IN THE 21ST CENTURY

ANDREW F. KNIGHT*

* M.S., J.D. Andrew F. Knight is the proprietor of Knight & Associates (www.PlotPatents.com), the inventor and owner of nine U.S. patents and 18 pending patent applications, and the first person to apply for a utility patent claiming a fictional storyline. Mr. Knight may be reached at info@plotpatents.com.

ABSTRACT

Inventors are challenging the legally unsupported view that fiction is never the appropriate subject matter of an issued patent by way of several controversial "storyline patent" applications recently submitted to the U.S. Patent and Trademark Office. This paper aims to address various potential statutory hurdles to the patentability of such "storyline patents," such as enablement and definiteness under 35 U.S.C. § 112, the imaginary but oft-cited "technology requirement," and potential Constitutional concerns arising under the First Amendment. Inventors submitting storyline patent applications will likely overcome such hurdles. Storyline patents offer the public a far greater benefit-per-cost than any other type of patent.

I. INTRODUCTION

In 2003, the author submitted the first of several utility patent applications to the United States Patent and Trademark Office nominally claiming fictional storylines.[1] Patentable subject matter is statutorily limited to a "process, machine, manufacture, or composition of matter,"[2] and so each storyline patent application claims processes of relaying a story. Examples includes creating and displaying a motion picture having a unique plot and articles of manufacture such as DVDs and books containing information including a unique plot.[3] Before publication of these storyline patent applications, the author publicly suggested a form of a storyline patent method claim that may pass muster under 35 U.S.C. § 101, using the plot of the motion picture *Memento* as a representative example:

> A process of relaying a story having a unique plot, the story involving characters and having a timeline, comprising:
>
> > indicating that a first character has an inability to retain long-term memories after a time in the timeline;

---

1 *See* U.S. Patent Application No. 20050244804 (filed Nov. 28, 2003) (published Nov. 3, 2005); U.S. Patent Application No. 20050255437 (filed May 17, 2004) (published Nov. 17, 2005); U.S. Patent Application No. 20050272013 (filed June 7, 2004) (published Dec. 8, 2005); U.S. Patent Application No. 20050282140 (filed June 17, 2004) (published Dec. 22, 2005) (all entitled "Process of relaying a story having a unique plot") [hereinafter collectively Storyline Patent Apps.].

2 35 U.S.C. § 101 (2006).

3 Storyline Patent Apps., *supra* note 1.

> indicating that said first character trusts notes written by said first character;
>
> indicating that said first character believes that said first character has been wronged by a perpetrator;
>
> indicating that said first character desires to perform an act of retribution against said perpetrator;
>
> indicating that said first character believes that attempting to perform said act is a futile endeavor; and
>
> indicating that said first character writes a note to said first character indicating that a second character, whom the first character believes is not the perpetrator, is the perpetrator.[4]

The author argued that these claims were statutory subject matter under 35 U.S.C. § 101[5] because statutory subject matter includes "anything under the sun that is made by man,"[6] and because storyline patent claims do not fall under any of the delineated exceptions to statutory subject matter such as laws of nature,[7] physical phenomena,[8] or abstract ideas[9] that do not produce a "useful, concrete and tangible result."[10] The author argued that an article of manufacture such as a DVD or a book is so akin to a patentable software-containing substrate, e.g., a computer disk or CD-ROM, that it is probably statutory subject matter that is not barred by the waning, ineffective "Printed Matter Doctrine."[11]

---

4 Andrew F. Knight, *A Potentially New IP: Storyline Patents*, 86 J. PAT & TRADEMARK OFF. SOC'Y 859, 867 (2004).

5 *Id.* at 868–70.

6 Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980).

7 *Id.* (suggesting the law of gravity and Einstein's famous mass-energy relationship are unpatentable laws of nature.)

8 *Id.* (suggesting naturally occurring minerals and plants are natural phenomena.)

9 *Id.* Mathematical algorithms were at one time considered unpatentable abstract ideas. *See* Diamond v. Diehr, 450 U.S. 175, 187 (1981) (recognizing that the mere application of a well-known mathematical equation by a computer to an otherwise patentable process does not of itself kill patentability.)

10 State St. Bank & Trust Co. v. Signature Fin. Group, 149 F.3d 1368, 1373 (Fed. Cir. 1998). The mathematical algorithm exception was effectively put to rest by the Court to the extent that a claimed invention produces a "useful, concrete and tangible result." *Id.* In other words, an idea is not impermissibly abstract under 35 USC § 101 where it produces such a result.

11 Knight, *supra* note 4, at 860, 868–69. *But see In re* John Ngai, 367 F.3d 1336, 1339 (Fed. Cir. 2004) (holding that a kit including instructions describing a patentable method was not a patentable article of manufacture because the set of instructions was "printed matter" that "was not 'functionally related' to . . . [and did] not interrelate with the kit.") This recent and unfortunate revival of the Printed Matter Doctrine represents a poor judicial understanding of

Not surprisingly, the prospect of patent protection on fictional storylines has piqued the curiosity of some,[12] and storyline patents have come under fire by those who confidently assert that storyline patent applications will fail for various reasons, including subject matter requirements (35 U.S.C. § 101), novelty and nonobviousness requirements (35 U.S.C. § 102 and § 103, respectively), the enablement requirement (35 U.S.C. § 112), indefiniteness (35 U.S.C. § 112), First Amendment concerns, and public policy.[13] This article aims to address these issues to the extent they were not already addressed in *A Potentially New IP: Storyline Patents.*[14] In Part II, the viability of storyline patents will be evaluated against the requirements for patentability, namely subject matter requirements (35 U.S.C. § 101), novelty and nonobviousness requirements (35 U.S.C. § 102 and § 103, respectively), the enablement requirement (35 U.S.C. § 112), and indefiniteness (35 U.S.C. § 112). In Part III, potential First Amendment limitations to storyline patents will be analyzed. Finally, in Part IV, storyline patents will be addressed in the context of the *quid pro quo* purpose of patent law.

---

the nature of software. Software, which is nothing more than the information necessary to cause an appropriately configured machine to perform a desired function, may currently be claimed as a method, a system including a computer processor, and an information-containing article of manufacture. The latter, which is merely a set of instructions encoded on a substrate in a manner functionally unrelated to the substrate, should not be allowable under the Printed Matter Doctrine. Thus, until the Court strikes down either the Printed Matter Doctrine or the allowability of article-of-manufacture software claims, it beds inconsistency and contradiction. *See generally* Andrew F. Knight, *Software, Components, and Bad Logic: Recent Interpretations of Section 271(f)*, 87 J. PAT. & TRADEMARK OFF. SOC'Y 493 (2005) [hereinafter *Software, Components, and Bad Logic*].

12 *See*, *e.g.*, Daniel Fisher, *Box Office Patents*, FORBES.COM, Aug. 15, 2005, http://www.forbes.com/work/2005/08/15/patent-movies-scripts-cz-df_0812script.html; *see also* Andrew Kantor, *A Novel Idea*, THE ROANOKE TIMES, Nov. 27, 2005, B1; Tresa Baldas, *No Tall Tale: Patent Filed for a Fictional Storyline Could Meet 'Utility Requirement,' but May Open Pandora's Box*, NAT'L L.J., Nov. 21,2005, at 6; Greg Aharonian, *Patenting Movies and Music?*, 27, No. 7 ENT. L. REP., 4, 4 (2005).

13 *See*, *e.g.*, *Recent Development: Pure Fiction: The Attempt to Patent Plot*, 19 HARV. J.L. & TECH 231, 234–35, 240–42 (2005) [hereinafter *Pure Fiction*] (asserting that storyline patent applications will likely fail under the subject matter requirements, enablement, the First Amendment, and public policy); *see also* Lewis R. Clayton, *'Lundgren' and Limits*, NAT'L L.J., Dec, 19, 2005, at 18 (asserting that storyline patent applications will likely fail under subject matter requirements, novelty and nonobviousness, indefiniteness, and enablement).e

14 Knight, *supra* note 4.

II. REQUIREMENTS FOR PATENTABILITY

Among other requirements, to be patentable, an invention must be: (a) the kind of subject matter for which Congress intended to reward inventors; (b) new and not obvious in light of prior inventions; (c) described sufficiently so that the invention may enter the public domain; and (d) clearly delineated.[15] For the reasons discussed below, a storyline patent application does not inherently fail any of these requirements.

A. Subject Matter Limitations and the Imaginary Technological Arts Requirement

To be patentable, an invention must be a "process, machine, manufacture, or composition of matter"[16] that is not a law of nature,[17] a physical phenomenon,[18] or an abstract idea[19] that fails to produce a "useful, concrete and tangible result."[20] The author has previously argued that patent applications claiming storyline methods satisfy these requirements because "[a] method is a method and should be examined as such."[21] Even the Printed Matter Doctrine, to the extent it contradicts the allowability of article-of-manufacture software claims,[22] may not prevent the allowability of article-of-manufacture storyline claims.[23] These arguments will not be repeated here.

At least one commentator has suggested the continued viability of the so-called "technological arts requirement," whereby courts in construing the subject matter requirement have "confined their liberal views to the realm of technology."[24] What is "nontechnology" is anybody's guess, but this same commentator suggests that works of fiction, music, and "business methods not implemented with computer technology" may be unpatentable "nontechnol-

---

15 35 U.S.C. §§ 101, 102, 103, and 112 (2006).

16 35 U.S.C. § 101.

17 Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980).

18 *Id.*

19 *Id.*

20 State St. Bank & Trust Co. v. Signature Fin. Group, 149 F.3d 1368, 1373 (Fed. Cir. 1998).

21 Knight, *supra* note 4, at 868.

22 *See generally Software, Components, and Bad Logic*, *supra* note 11.

23 *Id.* However, because of various problems that arise with the patentability of articles of manufacture containing only process information (such as CD-ROMs, DVDs, disks, or books) that do not arise with the patentability of the processes themselves, the present article will discuss and advocate only for the allowability of storyline method claims.

24 *Pure Fiction*, *supra* note 13, at 235.

ogy."[25] Desperate for evidence, he cites a dissenting opinion in binding case law to support the contention that creative works can never be patentable technologies.[26] Another commentator has opined that creative works, such as movies, "satisfy the . . . tests for being 'useful,' yet would not be considered to be patentable subject matter," because "no one would imagine obtaining a patent" for such creative works.[27] In other words, this commentator suggests simply that the creative nature of creative works, coupled with the lay public's suspicion that such works are not patentable subject matter, effectively precludes their patentability despite their usefulness.[28] The following analysis, however, aims to demonstrate that while many patents relate to what a lay person may deem "technology," such a relationship is not a prerequisite to patentability. It will be shown that not only is there no technological arts requirement, but also that there is no ready means for compartmentalizing creations into patentable technology and non-patentable non-technology.

1. The Board of Patent Appeals and Interferences Has Explicitly Dismissed Any Technological Arts Requirement.

Carl A. Lundgren filed an application claiming a business method for compensating a business manager.[29] The Patent Office rejected the application on the grounds that the claimed invention was directed to "an economic theory expressed as a mathematical algorithm without the disclosure or suggestion of computer, automated means, apparatus of any kind."[30] The patent examiner held that the claims were thus non-statutory for failing the so-called "technological arts" test under 35 U.S.C. § 101.[31]

Upon a request for reconsideration and rehearing, the Board of Patent Appeals and Interferences (BPAI) reversed the Examiner's rejection on the ba-

---

25 *Id.* at 237–8.

26 *Id*. at 238.

27 Robert A. Kreiss, *Patent Protection for Computer Programs and Mathematical Algorithms: The Constitutional Limitations on Patentable Subject Matter*, 29 N.M L. REV. 31, 62, 65 (1999).

28 Amazingly, the (now clearly false) assumption that "no one would imagine obtaining a patent" for fictional movies is used as evidence for the author's contention that a "technological arts" requirement exists and precludes the patentability of movies.

29 *Ex parte* Carl A. Lundgren, No. 2003-2088, 76 U.S.P.Q.2d 1385, 1385 (Bd. Pat. App. & Int. 2005).

30 *Id.* at 1386.

31 *Id*. at 1387.

sis that the patentable subject matter test requires that a process claim "produce a useful, concrete, tangible result without pre-empting other uses of the mathematical principle."[32] The Board pointed out that a process is statutory subject matter unless it is a law of nature, physical phenomenon or an abstract idea.[33] The Board ruled that there is not now, nor ever has there been, a separate "technological arts" patentability test under 35 U.S.C. § 101.[34] The Board dismissed the contention that a new technological arts test is required by any binding decision[35] and specifically pointed to the Supreme Court's decision in *Gottschalk v. Benson*[36] as evidence that the Court was aware of such a test and had not adopted it.[37]

While the *Lundgren* decision certainly expanded the scope of business method patents, its reasoning precludes the application of a "technological arts" requirement to *any* field of endeavor.

2. No Technological Arts Requirement Could Be Legally Cognizable.

Per *Lundgren*, there is no "technological arts" requirement for statutory subject matter. Nevertheless, to the extent that a BPAI decision is not binding on the Federal Circuit or Supreme Court, neither is likely to invent such a requirement. This is because, for patentability purposes, there is and can be no legally cognizable "technology" difference between an unquestionably patentable device and a device such as a DVD player loaded with a DVD that creates a fictitious, creative, virtual reality emulating the method implemented by the patentable device.

Many people may fail to understand the nature of technology and be tempted to artificially dichotomize fields of endeavor as either creative or technological. One who is unfamiliar with science and engineering might attempt to classify technology as that which involves the use of screwdrivers, jackhammers, transistors, chemicals, and so forth and therefore limit the scope of patentable subject matter. We suggest that technology is no more than intentional

---

32 *Id.* at 1386.

33 *Id.* at 1387.

34 *Id.* at 1388.

35 *See id.* at 1387 (citing *In re* Musgrave, 431 F.2d 882, 893 (CCPA 1970), *In re* Toma, 575 F.2d 872, 877–78 (CCPA 1978), and *Ex parte* Bowman, 61 U.S.P.Q.2d 1669 (Bd. Pat. App. & Int. 2001) (non-precedential)).

36 409 U.S. 63 (1972).

37 *Lundgren*, 76 U.S.P.Q.2d at 1387.

changes[38] to the human condition. While until relatively recently in human history many of these changes were effected with mechanical and electrical apparatus—the very epitome of patentable subject matter—there are several dangers to so limiting the word "technology." For example, one may be tempted to restrict patentable subject matter to "technology" that does not entertain or "technology" that entertains only in prescribed ways, such as by using mechanical gears and engines. Thus, a movie could not be patentable either because it entertains or because it entertains in a manner that is insufficiently technological. Each such restriction is seriously problematic.

First, there can be no legally cognizable technology requirement that hinges on whether an invention entertains. During the Industrial Revolution, many mechanical devices were invented that increased productivity. Also, the Industrial Revolution provided more people their basic needs by feeding, clothing, and housing them. For example, Eli Whitney's invention of the cotton gin in the late 18th century helped to proliferate the availability and use of cotton clothing. As advancements in technology improved—the human standard of living improving with it—it evolved more to improve human comfort and not just prospects for bare survival. The invention of modern air conditioning in the early 20th century by Willis Carrier is clearly "technology," even though air conditioning is a modern convenience that is rarely if ever required for human survival. Finally, as technology improved the human condition to a point where people could live healthily and comfortably with an abundance of free time, technology evolved to fill that comfort-induced void with entertainment. Pleasure boats, recreational vehicles, small airplanes, television, radio, video games, CD and DVD players, and every piece of equipment for every hobby, sport, and recreation imaginable are all forms of technology. None of these items are required for human survival or comfort. Whether a device has a primary purpose of more efficiently harvesting agricultural products or of entertaining the user is and should be irrelevant for purposes of patentability. Indeed, the United States Patent and Trademark Office has not hesitated to issue thousands of patents all relating exclusively to entertainment including: games,[39] sports moves,[40] and

---

38 In most cases, the intention is probably toward improvement, although one might argue that much technology (such as weapons) was intended to worsen the human condition.

39 *See*, *e.g.*, Game for two people in a relationship and method of play, U.S. Patent No. 6,631,904 (filed March 21, 2001) (issued Oct. 14, 2003); Dinner party conversation generator, U.S. Patent No. 6,464,222 (filed March 21, 2000) (issued Oct. 15, 2002).

40 *See*, *e.g.*, Method of putting, U.S. Patent No. 5,616,089 (filed March 29, 1996) (issued Apr. 1, 1997).

even methods of creating art.[41] It follows that the mere fact that fictional storylines entertain is not enough to classify a storyline method claim as a form of unpatentable non-technology.

Second, there can be no legally cognizable technology requirement that hinges on how an entertaining device or method entertains. Consider a new thrill ride, such as a roller coaster at a major theme park. The ride may include thousands of gears, pulleys, chains, hinges, bolts, motors, electrical actuators, relays, and so forth—patentable subject matter by any definition. Next, consider a virtual reality ride that accurately, but much less expensively and with far less risk to the rider, mimics the thrill ride. The virtual reality ride emulates the actual thrill ride and consists of a visual display, audio speakers, and a computer processor executing software programmed to create a virtual reality via the display and speakers. The judiciary in *AT&T Corp. v. Excel Communications, Inc.*[42] realized that, for patentability purposes, software performing a patentable process is indistinguishable from a machine performing that process. Consequently, the virtual reality ride is patentable subject matter alongside the actual thrill ride.[43] Further, that the virtual reality ride is patentable "technology" has nothing to do with whether it entertains by means of gears and pulleys or by LCD displays and microprocessors.[44]

Now, consider a fictional motion picture that includes in its plot and corresponding cinematography indications of a character riding such a thrill ride. For example, the movie may include video images of the character riding the thrill ride from the character's perspective.[45] In what legally cognizable way does this portion of the movie differ from the aforementioned patentable virtual reality ride? It doesn't. Thus, to the extent that a DVD containing a movie having a fictional plot is configured to cause a machine such as a DVD player to

---

41 *See*, *e.g.*, Painting kit and related method, U.S. Patent No. 6,022,219 (filed Dec. 18, 1998) (issued Feb. 8, 2000). *See generally* John R. Thomas, *The Patenting of the Liberal Professions*, 40 B.C. L. REV. 1139 (1999).

42 172 F.3d 1352, 1358 (Fed. Cir. 1994).

43 This does not imply, of course, that the virtual reality ride is patentable, for it may fail other statutory requirements—e.g., the virtual ride may have been obvious in light of existing prior art, a failure under 35 U.S.C. § 103.

44 If one attempts to argue that it is the very use of LCD displays and microprocessors that puts the virtual reality ride in the realm of patentable technology, the same argument would clearly apply to fictional motion pictures, which are displayed by means of projectors, electronic displays, electric speakers, microprocessors, DVDs and DVD players, VHS tapes and players, film rolls, and so forth.

45 This example is reminiscent of the scene in the motion picture *Vacation* in which fictional character Clark Griswold and his WallyWorld hostage arrive at and subsequently fall from the peak of a roller coaster. VACATION (Nat'l Lampoon 1983).

generate a virtual reality—and every movie does—it is patentable subject matter.

A virtual reality machine is clearly patentable subject matter, even though it may not be patentable unless the method it executes is both novel and nonobvious under 35 U.S.C. § 102 and § 103, respectively. Further, the same virtual reality machine creating different virtual realities by executing different software embodiments may be patentable for each different software embodiment. Analogously, a television connected to a DVD player loaded with a DVD is a virtual reality machine that is patentable subject matter under 35 U.S.C. § 101, even if the machine may be unpatentable for failing the novelty and nonobviousness requirements. Further, the same machine creating different virtual realities by playing different DVDs may be patentable for each storyline embodiment in the different DVDs.

In other words, if a virtual reality ride is patentable "technology," a motion picture is no less patentable "technology" simply for introducing more elaborate plot elements into the ride, i.e., for making the ride a subset of the entire plot. A movie is a virtual reality, as anyone who has ever cried in a movie theater can attest to, and if a virtual reality ride is patentable subject matter, so is a motion picture.

B. Novelty and Nonobviousness

An invention is not patentable if it is not new[46] or "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."[47] One might argue that storylines, which have evolved since the inception of human communication, are so plentiful and exhaustive that no storyline method claim could pass the tests of novelty and nonobviousness. We do not address this argument, as it pertains only to the quantity of prior art and not the inherent patentability of fictional storylines.

An analogy is instructive. Imagine a world in which fluid pumps (e.g. air pumps, water pumps, fuel pumps, radial pumps, piston pumps, turbopumps, etc.) were not thought patentable. One who then proposed the patentability of

---

[46] 35 U.S.C. § 102 includes many paragraphs, all loosely referred to as "novelty." For example, under § 102(a), an inventor is not entitled to a patent if "the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the application for patent."

[47] 35 U.S.C. § 103(a) (2006).

pumps would likely face the same absurd argument, that the mere quantity of existing pumps would preclude the conception of any new and nonobvious pump. Yet, the fact that pumps have indeed been invented, designed, and built for many millennia has not closed the spigot of new, patentable pump inventions.[48] While we expect novelty and nonobviousness hurdles to be high to any would-be plot inventor, one who asserts their insurmountability must contend that no one in the world will ever conceive of a patentably distinct plot.

In light of the thousands of overly broad patents that the United States Patent and Trademark Office issues every year due to poor and insufficient examination by an overworked and underpaid staff, many commentators have criticized the Patent Office's porosity.[49] Nevertheless, fear of overly broad and market stifling patent monopolies is not peculiar to storyline method patents; it is a symptom of a distressed patent system as a whole.[50] Efforts to fix the system would be more efficiently aimed at reducing porosity than at eliminating broad categories of patentable subject matter such as entertainment, software, business methods, or storyline methods.

C. Enablement

A patent is not valid if it fails to "sufficiently disclose an invention to enable those skilled in the art to make and use it. . . . [A]n examiner may reject a claim if it is reasonable to conclude that one skilled in the art would be unable to carry out the claimed invention."[51]

"One of ordinary skill in the art" is a term of art that refers to a hypothetical person who is extraordinarily knowledgeable in the relevant technological art, but who is not particularly clever.[52] As an example, one attorney has suggested that one of ordinary skill in the art of software engineering possesses

---

48 *See*, *e.g.*, Pressurizer for a Rocket Engine, U.S. Patent No. 6,499,288 (filed June 12, 2001) (issued Dec. 31, 2002).

49 *See*, *e.g.*, John R. Thomas, *The Responsibility of the Rulemaker: Comparative Approaches to Patent Administration Reform*, 17 BERKELEY TECH. L.J. 727, 731 (2002) (questioning how use of a vending machine does not anticipate Amazon.com's arguably overly broad patent claiming single action purchasing).

50 *Id.* at 728.

51 *In re* Buchner, 929 F.2d 660, 661 (Fed. Cir. 1991); *see also* 35 U.S.C. § 112 ¶ 1 (2006).

52 For example, one argument detailed in § 2143.01 of the *Manual of Patent Examining Procedure* for overcoming a rejection based on the combination of two references under § 103 is that neither reference nor the general knowledge of one of ordinary skill in the art teaches or suggests the desirability of combining the references. In other words, one of ordinary skill in the art will not combine element A from a first reference and element B from a second reference to form a combination invention A+B unless he is told to do so!

the following: (a) a degree in software engineering from an accredited university; (b) professional certification or licensure; (c) a "comprehensive understanding" of modern software's object-oriented paradigm; (d) "competency and proficiency" in a modern programming language; (e) a basic understanding and familiarity with hardware components; and (f) knowledge to account for quality, maintenance, and modification of a software product.[53] Enablement does not require that the person of ordinary skill be capable of constructing a particularly valuable, efficient, or pretty embodiment of the invention—any working embodiment will do.[54]

The pending storyline patent applications have been charged with failing the enablement requirement because they

> fail to describe the narrative methods necessary to achieve the stories that are the object of [the] claimed 'process.' [The] patents do not teach how to tell stories . . . [which are] replete with the usual narrative elements such as point of view, setting, theme, [and] characters. . . . [I]nventors of these plots may be poor writers who are unable to turn their brilliant plot ideas into stories.[55]

This analysis fails on at least three levels.

1. One of Ordinary Skill in the Art of Storytelling is Capable of Creating a Story from a Detailed Plot Description.

First, each of the currently pending storyline patent applications includes at least one full story embodying the claimed invention, including point of view, characterization, setting, theme, and dialogue. No assertions are made that the stories in their current forms are marketable as short stories or economically valuable for their particular copyrightable expressions. Enablement under 35 U.S.C. § 112, however, does not require this.[56] The disclosures are far more than bare plot descriptions; the characters even have names. They are, in a word, stories. Nevertheless, for the moment, it will be assumed *arguendo*, and

---

53 Lance D. Reich, *One of Skill in the Art in Software Engineering: The Rising Tide*, 84 J. PAT & TRADEMARK OFF. SOC'Y 269, 278–84 (2002).

54 In fact, disclosure of a working embodiment is not even necessary if one skilled in the art can practice the invention without undue experimentation. *See*, *e.g.*, Atlas Powder Co. v. E.I. Du Pont de Nemours & Co., 750 F.2d 1569, 1576 (Fed. Cir. 1984) (holding that disclosure in the patent of numerous salts, fuels, and emulsifiers that could form thousands of emulsions, without commensurate teaching as to which combinations would work, did not fail enablement, even where some of the claimed combinations were inoperative).

55 *Pure Fiction*, *supra* note 13, at 242.

56 *Supra* text accompanying notes 51–54.

consistent with the aforementioned criticism,[57] that each of the applications discloses only a detailed plot description that somehow falls short of the prized title "story."[58] To determine enablement, the level of skill of the hypothetical "one of ordinary skill in the art" of storytelling must be determined. Importing comparable characteristics from the art of software engineering,[59] perhaps a person skilled in the art of storytelling possesses a degree in English or writing from an accredited university, a certification or licensure based on a standardized test in the field of storytelling, a comprehensive understanding of the components and features of prose, and a competency and proficiency in modern and historical storytelling. The currently pending storyline patent applications are therefore not enabled if and only if the aforementioned person is *incapable* of telling stories "replete with the usual narrative elements such as point of view, setting, theme, [and] characters"[60] that embody the claimed inventions, based on the applications' detailed plot descriptions. In other words, the argument against enablement rests on the assertion that one skilled in the art of storytelling, who likely possesses, at a minimum, a degree in English or writing, is *incapable* of creating a developed story from a detailed plot description. Similar reasoning leads to the conclusion that a trained chef is incapable of producing a hamburger from raw ground beef and a roll. Just as an average seventh grader can cook a hamburger, she also probably knows how to tell a story based on a detailed plot description. Whatever abilities one of ordinary skill in the art of storytelling possesses, they likely exceed the anecdotal talents of a seventh grader.

2. A Patent Disclosing an Actual Embodiment of the Claimed Invention is Self-Enabling.

Next, consider a patent on a novel rocket engine. While 35 U.S.C. § 112 does not require this much, the patent would clearly be enabled if it included step-by-step instructions so detailed that a common machinist could assemble the engine through mindless obedience. The machinist, however, must still follow the instructions; merely copying the instructions gets him nowhere. Now consider a software patent, claiming both a method and an instruction-

---

57 *Supra* text accompanying note 13.

58 Realistically, there could be no legally cognizable distinction between a plot description and a story, as a detailed plot description *is* a story, even if less interesting, detailed, or marketable. The plot summary in a book review is a story *per se*, even to the extent that it lacks setting, dialogue, characterization, and other features of a more developed story.

59 Reich, *supra* note 53.

60 *Pure Fiction*, *supra* note 13, at 242.

containing substrate,[61] whose specification discloses an actual embodiment of the claimed software in a modern computer language, such as C++. Unlike a rocket engine, which is an apparatus that may be assembled from a set of instructions, software code fundamentally *is* a set of instructions,[62] such that software can be "assembled" from instructions merely by copying those instructions. In this example, one of ordinary skill in the art is enabled to practice the claimed invention simply by verbatim copying the code from the patent to his computer, saving the code to his hard drive (i.e., an information-containing substrate), and subsequently executing the code. By merely copying the code disclosed in the patent, even the least computer savvy technophobe can almost unconsciously use the claimed method and make the claimed substrate. Certainly, one of ordinary skill in the art, arguably a degreed and licensed software engineering having a "comprehensive understanding" of object-oriented software and a "competency and proficiency" in a modern programming language,[63] would be enabled by far less disclosure than an actual embodiment of the claimed software. For example, a sufficient description of the software's "ultimate purpose and functionality" would enable one of ordinary skill in the art of software engineering to make and use the invention.[64] Nevertheless, what is enabling to the lay person is enabling to the skilled artisan. A disclosure of an actual embodiment of the claimed software is as good as it gets.[65]

---

61 Software patents often include claims directed both to the methods performed by the software as well as machine-readable substrates containing information causing an appropriately configured machine to perform the methods.

62 *Software, Components, and Bad Logic*, *supra* note 11, at 494.

63 Reich, *supra* note 53.

64 *Id.*

65 Extremely skilled software engineers are capable of drafting code so complicated and confusing as to convolute the software's true function to prevent reverse engineering and maintain trade secrets. While disclosure of such code would *enable* one of ordinary skill in the art to practice the claimed invention—merely via copying and executing the code on a computer—disclosure of *only* such code in a patent application would not satisfy the *quid pro quo* purpose of patent law, and would likely fail both the written description and best mode requirements of § 112. For an interesting discussion of the difference between the enablement and written description requirements, *see* Robert Greene Sterne et al., *The Written Description Requirement+*, 37 AKRON L. REV. 231 (2004). Further, if one of ordinary skill in the art were enabled to practice the claimed invention *only* by copying the disclosed code (such as where the code is meticulously convoluted for trade secret purposes), a Constitutional issue could arise under Article I, Section 8, Clause 8 (authorizing Congress to award patents and copyrights), because the entire value of such code would arguably be fully protected under Copyright law, and thus would not be eligible for additional protection under patent law. However, to the extent that one of ordinary skill in the art is enabled to practice the invention

Further, the author has previously suggested that because a modern computer-plus-optical-scanner system is indisputably capable of reading and subsequently executing printed software, even where the "software" is written in normal human language instead of a more efficient and standardized computer language, a software patent claiming an information-containing substrate is itself an embodiment of the claimed software.[66] In other words, as soon as a person prints or copies an issued software patent, he has reproduced the invention. To the extent that an intoxicated monkey is capable of clicking the "print" button on a computer screen, it is enabled to practice the claimed invention.[67]

Analogously, a story is information such that a story may be "assembled" by copying another story. Each of the presently pending storyline patent applications[68] discloses at least one full story embodying the claimed invention. Like a self-enabling software patent application disclosing an actual embodiment of the claimed invention, a storyline patent application is self-enabling to the extent that it discloses an actual embodiment of the claimed invention. A person is enabled to practice a claimed storyline process, for example, by simply reading the disclosed story to another. Only literacy is necessary; embellishment or deviation are not. While the hypothetical "one of ordinary skill in the art" of fictional storylines has yet to be described, he is, at a minimum, literate. Further, where a storyline patent application claims an information-containing substrate, a person is enabled to construct the claimed invention merely by printing the patent application.

3. A Storyline Claim May Be Self-Enabling.

It has been demonstrated that a storyline patent application disclosure is enabling to the extent that it includes a detailed plot description, both because one of ordinary skill in the art can create the claimed story based on the descrip-

---

in copyrightably distinct ways—e.g., by providing him the tools to create different code having the same underlying function—this Constitutional issue should not arise.

66 *Software, Components, and Bad Logic*, *supra* note 11, at 505–06.

67 Unfortunately, a poor understanding by the Federal Circuit of the nature of software has led to the disastrous but previously unrecognized result that the mere printing of an issued software patent is also an infringing "making" of the claimed invention under § 271. *See Software, Components, and Bad Logic*, *supra* note 11, at 512. For this reason alone, software should be patentable only as processes or complete computer systems, not simply as information-containing substrates. The currently pending storyline patent applications each claims information-containing substrates, such as books and DVDs, with the recognition that while such apparati should not be patentable, they are probably no less patentable than currently allowable software apparati.

68 Storyline Patent Apps., *supra* note 1.

tion, and because any literate person can practice the claimed invention simply by copying or relaying the story-containing disclosure. Finally, even a bare plot, such as the bare plot recited in the elements of a storyline claim, is a story in its rawest form. 35 U.S.C. § 112 does not require a storyline patent to enable one of ordinary skill in the art to create a blockbuster Hollywood hit or a best-selling novel. 35 U.S.C. § 112 does not even require enabling the performance of a disappointingly executed high school play. A storyline patent need only enable one of ordinary skill in the art to practice the claimed invention.[69] Where the claimed invention is a process of relaying a story comprising a set of four specific steps, for example, the patent specification need only disclose how to perform these four steps. Complex characterization, witty dialogue, and intricate plot details are simply not necessary to relay a story in its rawest form.

For example, assume that the primary plot in *Romeo and Juliet*[70] was reduced to a process of relaying a story comprising the following steps: a) indicating that the family of a first character is at war with the family of a second character; b) indicating that the first and second characters fall in love; and c) indicating that a conflict caused by the first and second characters' love causes the first and second characters to kill themselves. A patent application claiming this plot need not teach how to write beautifully or to assemble prose in iambic pentameter. In fact, the activity recited in step a), for example, is self-reflexive because the phrase "indicating that the family of a first character is at war with the family of a second character" indicates that the family of a first character is at war with the family of a second character. In other words, merely reading the above process claim to another tells the precise story claimed. If the reader is skeptical on this point, we suggest reading the above process claim to another to determine if she subsequently identifies the story of *Romeo and Juliet*. While the presently pending storyline patent applications, each containing developed stories embodying the claims, are almost certainly enabled, even an application containing only a bare plot description little fuller than the claims themselves is likely enabled.[71]

---

69 *Supra* text accompanying notes 51–54.

70 William Shakespeare's classic screenplay would never be available for expropriation from the public domain via a patent system that embraces storyline patents in part because § 102(b) includes as anticipating prior art all publications older than one year.

71 However, such a patent application would not satisfy the *quid pro quo* purpose of patent law, and would likely fail both the written description and best mode requirements of § 112.

D. Definiteness

A patent claim is not valid if it is indefinite, i.e., if it fails to "particularly [point] out and distinctly [claim] the subject matter which the applicant regards as his invention."[72] A patent claim is definite when "a person experienced in the field of the invention would understand the scope of the subject matter that is patented when the claim is read in conjunction with the rest of the specification."[73] Further, "[a] claim is not 'indefinite' simply because it is hard to understand when viewed without benefit of the specification."[74] In *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*,[75] the court held that a claim reciting a front leg portion that "is so dimensioned as to be insertable" in a region of an automobile is definite, even though exact dimensions were not claimed, because "those skilled in the art would understand what is claimed when the claim is read in light of the specification," and "[t]he phrase 'so dimensioned' is as accurate as the subject matter permits."[76] A possible charge to the validity of a storyline patent claiming methods having steps of "indicating"[77] is that the claims are not sufficiently definite. The charge likely fails for at least two reasons.

1. One of Ordinary Skill in the Art of Storytelling Would Understand the Scope of the Claims When Read in Conjunction With the Specification.

Previously, the level of "ordinary skill in the art" in storytelling was suggested as including a degree in English or writing from an accredited university; a certification or licensure based on a standardized test in the field of storytelling; a comprehensive understanding of the components and features of prose; and a competency and proficiency in modern and historical storytelling. Consider the previously-suggested method claim for the motion picture *Memento*,[78] and assume that the claim accompanies a patent specification including a detailed description of *Memento's* plot. The description may contain a thorough

---

72 35 U.S.C. § 112, ¶ 2.

73 S3 Inc. v. nVIDIA Corp., 259 F.3d 1364, 1367 (Fed. Cir. 2001); *see also* Miles Labs., Inc. v. Shandon Inc., 997 F.2d 870, 875 (Fed. Cir. 1993) ("If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, § 112 demands no more.")

74 *S3 Inc.*, 259 F.3d at 1369.

75 806 F.2d 1565 (Fed. Cir. 1986).

76 *Id.* at 1576.

77 Knight, *supra* note 4, at 867–68.

78 *Id.* at 867.

and exhaustive description written in "patentese," a complete script, or both. This claim would be indefinite if and only if the aforementioned "one of ordinary skill in the art" would not "understand the scope of the subject matter that is patented when the claim is read in conjunction with the rest of the specification."[79]

The first step in the suggested method claim is "indicating that a first character has an inability to retain long-term memories after a time in the timeline." In determining whether one of ordinary skill in the art would understand the scope of the invention, the first word to be considered might be "indicating." In each of the pending storyline patent applications, the word "indicating" is clarified:

> As well known by those of ordinary skill in the art, there are many ways to indicate a fact in a movie or a book without any explicit words to that effect at all: circumstance, cinematography, subtly suggestive newspaper headlines, suggestive words by the protagonist or other characters, etc., can all be indicative of that fact.[80]

One of ordinary skill in the art of storytelling, whatever expertise she possesses, certainly understands how to indicate something in a work of fiction. For example, consider the definiteness of the following step: "indicating that a character is ill." One of ordinary skill in the art of storytelling might demonstrate that a character is ill by any of the following: describing the character's ailments; recording a conversation between two characters suggesting or detailing the ill character's illness; describing various implements associated with illness, such as thermometers, medications, bandages, feeding tubes, etc.; or describing emotions or emotional dialogue of characters associated with illness, such as a character crying at the bedside of the ill character, and so forth. Further, because she knows *how* to indicate something, she necessarily understands the *scope* of the recited word "indicating" in that she understands which dialogue and descriptions in a movie script indicate that a character is ill. Of course, descriptions in the specification of what constitutes "indicating" (such as explicit statements, circumstance, cinematography, music tone, implicit suggestions in the actions and dialogue of other characters, etc.) further clarify her understanding of the scope of a claim that includes a step of "indicating."

Having addressed the word "indicating," the remainder of the first step in the suggested *Memento* claim would not appear to be problematic. For instance, one of ordinary skill in the art of storytelling would understand what it

---

79 *S3 Inc.*, 259 F.3d at 1367.

80 See, *e.g.*, U.S. Patent Application No. 20050244804 at ¶ 52 (filed Nov. 28, 2003) (published Nov. 3, 2005).

means for a first character to have an "inability to retain long-term memories after a time in the timeline," particularly after reading a detailed description (which may include the script) of the *Memento* plot. Because she knows what it means, she understands the scope of indicating it. In other words, while there are lots of possible ways to indicate in a motion picture that a first character cannot retain long-term memories, one of ordinary skill in the art would recognize them all as falling within the claimed scope. Since the remaining steps in the suggested *Memento* claim have exactly the same form—i.e., "indicating . . ."—they would not pose any further issues.

2. "Indicating" is Not Inherently Indefinite

One might argue that the word "indicating" is inherently indefinite because the object of the verb is a human mind. In other words, unlike the step "attaching a transistor to a silicon substrate," in which physical articles are the objects of the verb "attaching," the step "indicating the angular position of a cylinder" has the human mind as the object of the verb "indicating." After all, an indicator light (such as an automobile dummy light) inherently indicates something to a person.

This objection fails. First, the fact that the object of "indicating" or an "indicator" is a human mind is irrelevant to whether "a person experienced in the field of the invention would understand the scope of the subject matter that is patented when the claim is read in conjunction with the rest of the specification."[81] Second, most, if not all, indicators or steps of indicating have human minds as objects, nevertheless, the validity of the thousands of patents having claims including the words "indicating" or "indicator" has never been called into question on the basis of the definiteness of these words.[82]

Even if the judiciary found a problem with the word "indicating," other verbs could be used to save storyline method claims from death by indefiniteness. For example, the step "creating an image" is not inherently indefinite; a patentable television certainly would perform a patentable method of "providing the [patentable] television and creating an image." Moreover, "creating an image of a person" is likely no less definite than "creating an image." Finally,

---

81 *S3 Inc.*, 259 F.3d at 1367.

82 *See*, *e.g.*, Creo Prods., Inc. v. Presstek, Inc., 305 F.3d 1337, 1342 (Fed. Cir. 2002) (discussing the definiteness of claims reciting "receiving position information indicating the angular position of said cylinder" on grounds other than the definiteness of the word "indicating"); *see also* Pennwalt Corp. v. Durand-Wayland, Inc., 833 F.2d 931, 937 (Fed. Cir. 1987) (discussing the validity of claims reciting "continuously indicating the position of an item to be sorted" on grounds other than the definiteness of the word "indicating").

"creating an image of a person playing baseball" is probably no less definite than "creating an image of a person;" it also could be the beginning of a fictional plot. In other words, the word "indicating" in the pending storyline patent applications could be replaced with the phrase "creating an image" (or a comparable phrase) should the former create trouble.

III. FIRST AMENDMENT CONCERNS

Patents are strange animals. Debates rage as to whether they are a form of property, monopoly, or private regulation.[83] Like property, a patent allows a patentee to exclude others from using his patent.[84] Unlike property, a fact often confused by the lay public, a patent does not give the patentee the right to practice his own invention, in part because use of his invention may infringe another's patent.[85] If patents are property of some sort, they assume the form of a property-based legal theory at times, allowing a patentee to seek preliminary injunction in a court of equity to prevent future infringement.[86] They also assume the form of a liability-based legal theory at other times, only allowing a patentee to seek remedy at law after infringement if a preliminary injunction would have amounted to an impermissible prior restraint.[87] Professor Thomas of Georgetown University Law Center argues that since patents are drafted by private individuals, patents are more akin to federal regulation yielding "causes of actions in tort that applicants write for themselves."[88] In any event, a patent gives a patentee, a private actor, the right to prevent others from making, using, selling, offering to sell, and importing the claimed invention.[89] Whether seen as a form of property, monopoly, or private regulation, a patent gives a patentee the right to prevent others from acting and, sometimes, speaking. To what ex-

---

83 Thomas, *supra* note 49, at 741.

84 35 U.S.C. § 271(a) (2006).

85 *See*, *e.g.*, Alison Marcotte, *Concurrent Protection of Products by Patent and Trade Dress: Use of the Functionality Doctrine in* Marketing Displays, Inc. v. TrafFix Devices, Inc., 36 NEW ENG. L. REV. 327, 357 (2001).

86 Andrew Beckerman-Rodau, *Prior Restraints and Intellectual Property: The Clash Between Intellectual Property and the First Amendment from an Economic Perspective*, 12 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1, 11–18 (2001).

87 *Id.* at 26–31.

88 Thomas, *supra* note 49, at 741. I heartily disagree. A patent is more analogous to a federal law, drafted by a private citizen and skilled attorney, mailed to his U.S. Representative as a mere suggestion, and subsequently proposed, amended, and passed as a bill. The House passed the bill—not the citizen—although the citizen certainly helped.

89 35 U.S.C. § 271(a).

tent would free speech guarantees of the First Amendment clash with storyline patent rights?

A. Patents and the State Actor Doctrine

Commentators have asserted that "the initial grant and the enforcement of storyline patents in specific instances would almost certainly violate the First Amendment's free speech guarantee"[90] without any recognition (or perhaps realization) that the First Amendment's guarantee of liberty in speech applies, with few exceptions, only against the government.[91] For example, while political speech is arguably the most protected First Amendment speech, a trespassing speaker being forcefully ejected from private property would likely find resort to the Constitution unproductive, no matter how politically charged his speech. In other words, the First Amendment does not provide a carte blanche against which any entity may speak at any time, particularly where private property interests are concerned. Whether or not a patentee is limited by First Amendment principles rests largely on the state actor doctrine. "When the nominally private party performs a traditional government function, is controlled by a state entity, or engages in conduct that has been encouraged or substantially facilitated by the government, then the constitutional guarantees will apply."[92] Currently, no court has addressed the applicability of the state actor doctrine to patents, a prerequisite to barring issuance or enforceability of a storyline patent on constitutional grounds.

Professor Thomas discusses the state actor doctrine as applied in three cases in which a private entity was granted a license from the government.[93] In *Moose Lodge No. 107 v. Irvis*, the Court held that the mere granting of a state liquor license to a private club does not convert the licensee into a state actor.[94] In *Jackson v. Metropolitan Edison Co.*, the Court held that even a heavily-regulated utility enjoying monopoly status does not act as the state.[95] Finally, in *San Francisco Arts & Athletics, Inc. v. United States Olympic Committee*, the Court held that Congress' transfer of ownership of the word "Olympic" to a private corporation did not transform the entity into a state actor.[96] Professor

---

90 *Pure Fiction*, *supra* note 13, at 242.

91 John R. Thomas, *Liberty and Property in the Patent Law*, 39 HOUS. L. REV. 569, 592 (2002).

92 *Id.* at 592–93 (footnotes omitted).

93 *Id.* at 597–99.

94 407 U.S. 163, 175–78 (1972).

95 419 U.S. 345, 358–59 (1974).

96 483 U.S. 522, 544 (1987).

Thomas concludes that because "[p]atentees are subject to considerably less government entwinement than any of these other entities," a private patentee is likely not a state actor.[97] While there is a line of cases suggesting a more liberal view of the state actor doctrine where more compelling rights violations are involved (such as a libel action for political speech against a state official[98] and racial discrimination[99]), the decision to apply the state actor doctrine to a particularly difficult patent case may infect every future patent enforcement suit "with the entire panoply of constitutional defenses."[100] Therefore, a court would most likely view a patent as a private-property right akin to enabling a real-property owner to eject a trespasser who is loudly denouncing the government, despite the trespasser's compelling rights to freedom of political speech.

The aforementioned commentators miss the boat entirely by (1) ignoring the state actor doctrine and (2) citing *Harper & Row Publishers, Inc. v. Nation Enterprises*[101] as standing for the proposition that the First Amendment tempers intellectual property rights (specifically, the Copyright Revision Act of 1976) "by permitting free communication of facts while still protecting an author's expression."[102] In *Harper*, the Court repeatedly mentions "First Amendment values" while holding that unauthorized use of President Ford's memoirs was not a "fair use" under Section 107 of the Copyright Act.[103] Despite First Amendment-style dicta and consistent with the fact that the state actor doctrine was not applied, the Court's decision was grounded in the Copyright Act and not in the First Amendment.[104] The Court refused to allow the First Amendment to "expand[] the doctrine of fair use to create what amounts to a public figure

---

97 Thomas, *supra* note 91, at 598 (Professor Thomas also notes the surprising conclusion that a patentee could, consistent with the Constitution, limit speech in a manner impermissible to the government.).

98 *See* N.Y. Times Co. v. Sullivan, 376 U.S. 254, 283 (1964) (holding that the First Amendment bars a libel action against a newspaper for publishing an advertisement about a public official acting in his official capacity).

99 *See* Shelley v. Kraemer, 334 U.S. 1, 20 (1948) (holding that judicial enforcement of private racially-restricted covenants constitutes state action). *Shelley*'s holding has been considerably narrowed by subsequent decisions and its precedential value has been limited. Thomas, *supra* note 91, at 602. Further, both *New York Times Co.* and *Shelley* were decided amidst a nation torn by politics of race. The judicial determination of the viability of storyline patents, on the other hand, is unlikely to be so influenced.

100 Thomas, *supra* note 91, at 606.

101 471 U.S. 539 (1985).

102 *Pure Fiction*, *supra* note 13, at 243 (quoting *Harper & Row Publishers, Inc.*, 471 U.S. at 556).

103 Thomas, *supra* note 91, at 600.

104 *Harper & Row Publishers, Inc.*, 471 U.S. at 559–60; Thomas, *supra* note 91, at 600.

exception to copyright."[105] In other words, not only is there a dearth of binding case law holding that a patentee is a state actor restricted by the First Amendment, but case law actually suggests the opposite.

B. The Generally-Accepted Presumption that Patent Rights are not Limited by First Amendment Rights

While the specific issue of whether or not a patentee is a state actor restricted by constitutional free speech guarantees has never been litigated, and even if the state actor doctrine is momentarily (but impermissibly) ignored, the following analysis aims to demonstrate that Congress, the Judiciary, and private entities all act under the apparently generally-accepted presumption that a patentee is not so restricted.

1. Section 271 Includes Restrictions on Otherwise-Protectable Commercial Speech

While patent law is not ordinarily perceived to involve restricting speech or expression, the Patent Act specifically limits at least some commercial speech by granting a patentee the right to prevent others from offering to sell a patented invention.[106] In *DeSantis v. Hafner Creations, Inc.*,[107] the district court held that a magazine advertisement, which is commercial speech ordinarily protected under the First Amendment,[108] for an allegedly-infringing gun holster was an infringing offer for sale actionable under Section 271(a).[109] Further, the Federal Circuit held in *3D Systems, Inc. v. Aarotech Laboratories, Inc.*,[110] that mailing letters to four companies describing products for sale and their prices was an infringing offer for sale, whether or not the letters created a contractual offer.[111] Thus, Section 271(a) ensures a patentee the right to curtail certain otherwise-protected commercial speech, namely commercial speech amounting to an offer for sale of a patented invention.[112] First Amendment defenses were never raised in these cases. Apparently, asserting that a privately-acting patentee is a state

---

105 *Harper & Row Publishers, Inc.*, 471 U.S. at 559–60; Thomas, *supra* note 91, at 600.

106 *See* 35 U.S.C. § 271(a) (2006).

107 949 F. Supp. 419 (E.D. Va. 1996).

108 *See*, *e.g.*, Beckerman-Rodau, *supra* note 86, at 34.

109 *DeSantis*, 949 F. Supp. at 426.

110 160 F.3d 1373 (Fed. Cir. 1998).

111 *Id.* at 1379; *see* Beckerman-Rodau, *supra* note 86, at 35.

112 *See* Beckerman-Rodau, *supra* note 86, at 35.

actor subject to First Amendment limitations sounds ludicrous even to defendants.

2. The Patent Office Regularly Issues, and Private Entities Regularly Enforce, Patents that Inherently Restrict Speech

Methods of creatively painting may be patentable.[113] In addition, methods having the steps of querying a respondent,[114] instructing a person to act,[115] or engaging others to answer and discuss open-ended questions[116] may be patentable. One issued patent relating to home improvement includes a claim step of "presenting the design ideas to a client."[117] "[M]ethods of teaching language, music, vocabulary acquisition, dialogue writing, and mathematics" have been patented in various forms.[118] In each of these patents, execution of the claimed invention does not merely include the possibility of speech—it *requires* speech or expression in some form. In some cases the invention requires expression which, when fixed in a tangible medium of expression,[119] is protected under the Copyright Act.[120]

While the Patent Office is not the final arbiter to determine if the First Amendment applies to patents, it acts as a rulemaking agency of the federal government and is charged with upholding the Constitution.[121] To the extent that the Patent Office regularly issues patents that are so intertwined with speech that use of the patents requires expression—and in many cases even copyrightable *creative* expression—it implicitly asserts that the First Amendment is not a concern to the patent system.

---

113 *See*, *e.g.*, Painting Kit and Related Method, U.S. Patent No. 6,022,219 (filed Dec. 18, 1998) (issued Feb. 8, 2000).

114 *See*, *e.g.*, Method and Apparatus for Administering a Survey, U.S. Patent No. 6,093,026 (filed July 6, 1998) (issued July 25, 2000).

115 *See*, *e.g.*, Character Assessment Method, U.S. Patent No. 5,190,458 (filed Apr. 17, 1991) (issued Mar. 2, 1993).

116 *See*, *e.g.*, Dinner Party Conversation Generator, U.S. Patent. No. 6,464,222 (filed Mar. 21, 2000) (issued Oct. 15, 2002).

117 Method for Designing and Illustrating Architectural Enhancements to Existing Buildings, U.S. Patent No. 5,668,736 col.5 l.11 (filed Jan. 25, 1995) (issued Sept. 16, 1997).

118 Thomas, *supra* note 91, at 590 (footnotes omitted).

119 *See* 17 U.S.C. § 101 (2006).

120 *See* 17 U.S.C. § 106 (2006).

121 Thomas, *supra* note 91, at 613–14.

Furthermore, the following examples suggest that private litigants employing high-priced attorneys do not seem to think highly enough of the argument that the First Amendment is applicable to private patentees to argue it. In 2001, a federal court issued a restraining order prohibiting Juno Online Services, Inc. from practicing a patented method of competitor NetZero, Inc.[122] The patent, which claimed a method of displaying advertisements in floating windows,[123] is inherently and intimately intertwined with otherwise-protected commercial speech; First Amendment concerns did not arise, however.[124]

First Amendment concerns may be relevant, however, in evaluating a patentee's rights to the extent that a preliminary injunction could amount to an impermissible prior restraint. While a specific case has not yet arisen, working analogies are instructive on the conflict between the First Amendment and other intellectual property rights. For example, a company may recover against a defendant who unlawfully expropriates and disseminates a company's protected trade secrets; in other words, a citizen has no First Amendment right to freely speak such secrets.[125] Nevertheless, prior restraints are considered so heinous a form of censorship, even when one has threatened to disseminate valuable trade secrets, that "courts generally do not allow preliminary relief that restricts free speech" because "[a]ny short-term restriction of free speech that might ultimately be adjudicated constitutionally protected speech is unacceptable to a court."[126] Applying this analogy to the patent arena, a defendant's appeal to the First Amendment is likely to be successful, if at all, only on the question of a preliminary injunction preventing the defendant from speaking in an infringing manner.

---

122 Nancy Weil, *NetZero Suit Hits Juno with Restraining Order*, NETWORK WORLD, Jan. 8, 2001, *available at* 2001 WLNR 11763442.

123 Communication System Capable of Providing User with Picture Meeting Characteristics of User and Terminal Equipment and Information Providing Device Used for the Same, U.S. Patent No. 6,157,946 col.1 ll.56–67 (filed Aug. 26, 1998) (issued Dec. 6, 2000). *See also* Thomas, *supra* note 91, at 589.

124 Thomas, *supra* note 91, at 589.

125 *See*, *e.g.*, Universal City Studios, Inc. v. Corley, 273 F.3d 429, 458 (2d Cir. 2001) (holding that the First Amendment does not permit a person to publish secret DVD decryption software).

126 Beckerman-Rodau, *supra* note 86, at 26–27.

3. The Patentable and Copyrightable Nature of Software Teaches that Free Expression Fails to Restrict a Private Patentee's Rights

Software is often touted as enjoying the privileged status of intellectual property that may be protected under both patent and copyright law.[127] For example, a software patent claim might include an information-containing substrate configured to cause an appropriately-configured machine to execute the software's function. An actual embodiment of the software in the form of code (usually written in a modern programming language) is a fixation in a tangible medium of expression that is copyrightable .[128] In other words, the expression of the actual embodiment is copyrightable, while the idea embodied on a physical substrate or apparatus is patentable. The dual nature of software protection is easily understood by recognizing that software, fundamentally a set of instructions,[129] is no more than information. In that respect, software is comparable to the information found in a copyrightable novel, song, or newspaper article.

Like a novel, however, the information in software is subject to, and in fact at times actually requires, creative expression. If a novel is the creative embodiment of a raw plot, software is the creative embodiment of a raw function. More particularly, software is expression that is indeed protected by the First Amendment,[130] but it is also capable of private restriction via patents and copyrights.

In *Bernstein v. United States Department of State*,[131] a Ph.D. graduate student studying electronic encryption challenged the requirement that he obtain a license to publish encryption software allegedly controlled by the Arms Export Control Act.[132] He contended that the software was protected First Amendment speech and that the Arms Export Control Act served as an impermissible prior restraint on this speech.[133] The district court agreed with Bernstein on the basis that "[t]he statutory language, along with the caselaw of numerous circuits, supports the conclusion that copyright protection extends to both source code and object code" and "[f]or the purposes of First Amendment analysis . . . source

---

127 *See*, *e.g.*, Mark H. Webbink, *A New Paradigm for Intellectual Property Rights in Software*, 2005 DUKE L. & TECH. REV. 12, ¶29 (2005).

128 *See* 17 U.S.C. § 101 (2006).

129 *E.g.*, *Software, Components, and Bad Logic*, *supra* note 11, at 494.

130 *Universal City Studios*, 273 F.3d at 449–50.

131 922 F. Supp. 1426 (N.D. Cal. 1996).

132 *Id.* at 1430–31.

133 *Id.*

code is speech."[134] The court specifically rejected the contention that functionality reduces First Amendment protection by pointing out that "[i]nstructions, do-it-yourself manuals, recipes, even technical information about hydrogen bomb construction are often purely functional; they are also speech . . . . Like music and mathematical equations, computer language is just that, language, and it communicates information either to a computer or to those who can read it."[135]

Bernstein was directed to restrictions imposed by the federal government on First Amendment speech; software is a subset of protected First Amendment speech.[136] While *Bernstein* asserts that *all* software code (even object code[137]) is protected First Amendment speech,[138] no court has ruled that these protections are applicable in limiting the rights of private copyright and patent holders attempting to recover for damages against an infringer, no matter how expressive or creative the infringing software is.

Software may itself be a *form* of expressive speech. For example, consider a security technology developer who patents software for encrypting information to prevent unauthorized copying. A rogue citizen, protesting the American regime of strong intellectual property protection, uses the patented software without a license to create and prolifically distribute decrypting software that overcomes the developer's patented encryption scheme. The protestor's software is itself political speech that infringes the developer's patent. While this precise issue has never been litigated, common sense instructs that the developer would be able to recover for patent infringement.[139] Patent law does not look to the *purpose* behind an infringer's act.[140] Unlike copyright law's fair use, educational, and other statutory-infringement exceptions,[141] such excep-

---

134 *Id.* at 1436.

135 *Id.* at 1435.

136 *Id.*

137 *But see* Patrick Ian Ross, *III. First Amendment c) Computer Programming Language:* Bernstein v. United States Department of State, 13 BERKELEY TECH. L.J. 405, 409–10 (1998) (arguing the insufficiency of the *Bernstein* court's analogies between software and other speech, such as music). Further, for a hearty discussion on the distinction between software-as-function and software-as-expression, and whether or not software is speech for First Amendment purposes, *see* Dan L. Burk, *Patenting Speech*, 79 TEX. L. REV. 99 (2000).

138 *Bernstein*, 922 F. Supp. at 1435.

139 *See*, *e.g.*, *Universal City Studios*, 273 F.3d at 458. Patent issues did not arise in *Universal City Studios* because the encryption code was not patented. The Court had no trouble applying traditional American principles of strong intellectual property protection, however, to conclude that the First Amendment is not a loophole to justify the expropriation of an individual's intellectual property. *See id.*

140 *See* 35 U.S.C. § 271(a) (2006).

141 *See*, *e.g.*, 17 U.S.C. § 107 (2006).

tions are notoriously absent from patent law. One who infringes a software patent for good reasons or bad, for profit or nuisance, for charged political propaganda or for fun, is still an infringer.

In addition, software may be the result of a primarily expressive *effort* (e.g., 99% creative and 1% functional) and be fully protected under patent law. For example, because writing software is as much art as science, a particular computer function may be implemented by an infinite number of software embodiments.[142] Software engineering students in the course of fully understanding this fact might engage in a coding competition in which the student who drafts the most complicated, convoluted, and confused code for a predetermined simple function wins. Yet, no matter how much creativity and expression were involved in such coding, the resulting software would infringe a patent if it executed the claimed method.[143]

Finally, software may *include* otherwise-protected expressive speech without restricting a copyright or patent holder's rights. Consider a would-be infringer who includes otherwise-protected First Amendment speech, such as politically charged messages, between the lines of copyrighted or patented source code. To the dismay of the infringer who planned on bypassing the patent by invoking the First Amendment, patent law contains no statutory infringement exceptions.[144] Moreover, the First Amendment is probably not a limitation on a software patentee suing for damage recovery.[145]

In essence, if software is speech for First Amendment purposes,[146] and it is also subject to private appropriation via both copyright and patent law,[147] common sense demands that the former not kill the latter. While some commentators seem bothered by the apparent conflict between the simultaneous protection and private restriction of certain speech,[148] their confusion (but probably not their indigestion) may be assuaged by recognizing that a private

---

142 Software is simply a set of instructions to cause an appropriately configured machine to execute a desired function. *Software, Components, and Bad Logic*, *supra* note 11, at 494. Intuitively, as there are many ways (i.e., sets of instructions) to make a peanut butter and jelly sandwich (i.e., the desired function), there are many possible software embodiments for any desired computer function.

143 *See* 35 U.S.C. § 271(a).

144 35 U.S.C. § 271.

145 *See generally* Thomas, *supra* note 91, at 588–606.

146 *See Bernstein*, 922 F. Supp. at 1435.

147 *See* Webbink, *supra* note 127, at ¶29.

148 *See*, *e.g.*, Mark A. Lemley & Eugene Volokh, *Freedom of Speech and Injunctions in Intellectual Property Cases*, 48 DUKE L.J. 147, 149–51 (1998).

patent owner bringing a lawsuit to recover damages against an infringer is, as previously discussed, not a state actor restricted by the First Amendment.

C. Protected Speech Versus the Patent System

While binding case law suggests that, and government and private entities act as if, a patentee is not a state actor limited by the First Amendment, there is a far more persuasive reason that patentees should not be limited by the First Amendment. A binding decision that a patent owner is a state actor whose enforcement activities are trumped by any First Amendment concerns would all but annihilate patent rights. Essentially, any time a potential infringer dressed up a patented apparatus or method with a sufficient quantity of creativity, expression, or otherwise-protected First Amendment speech, he would avoid liability.

Consider, in the software arena, a would-be infringer who writes a fictional short story. The story is then fed to a creatively-designed compiler that converts the fictional story to object code that causes a computer to execute a patented method. Is the fictional story protectable First Amendment speech? Indubitably. For example, the United States would be prohibited from censoring or controlling publication of the short story based upon its content.[149] Nevertheless, if the First Amendment could trump the private patentee's rights to recovery for infringement, the protected story could, and presumably would, proliferate among those who used the story for the software code it contained, without any reward to the patentee. Similarly, consider the software pirate who inserts politically-charged (but nonfunctional) messages throughout patented software code and distributes the code without authority from the inventor knowing that his protected political speech will always overcome a charge of patent infringement. In other words, whether or not all software code is inherently First Amendment-protected speech,[150] all software code can be *converted* into First Amendment-protected speech, whether by *using* the code as speech, expressively *writing* it, *embedding* it with speech, or *reading* it as speech. Thus, if the First Amendment kills a patentee's right to recover for infringement of his software patent, then he has, *de facto*, no patent rights at all. Every valuable software patent would be lawfully infringed via the First Amendment loophole.

---

[149] There are but a handful of specific exceptions to this rule, such as in the cases of fighting words, obscenity, and incitement of illegal activity. *See*, *e.g.*, Beckerman-Rodau, *supra* note 86, at 27.

[150] For example, there is debate as to whether bare object code counts as speech for First Amendment purposes. *See*, *e.g.*, Burk, *supra* note 137.

The above examples do not only apply to software patents. Most, if not all, patented processes, machines, manufactures, and compositions of matter[151] could be converted into First Amendment-type speech. Consider, for example, a would-be infringer of a valuable patented consumer product who, while otherwise impermissibly manufacturing the product, needlessly but expressively shapes or dresses the product to invoke the First Amendment trump against patent infringement. Subsequently, he could profit from selling the pirated product without paying any royalty to the inventor. Consider a would-be infringing user of a pirated video camera who asserts that her regular artistic uses of the camera constitute a First Amendment bar against patent infringement recovery by the uncompensated inventor. Consider a would-be infringer who manufactures, sells, and profits from a patented airplane. To escape the obligation to pay or even notify the patentee, he hires an artist to paint a First Amendment-type message on the side of each plane. The examples are endless, as virtually *every* patent could be infringed in a manner that was expressive, creative, or otherwise protectable under the First Amendment. In such a regime, to the extent that a patented invention is made or used in any First Amendment-protected context, the inventor would go unrewarded for her contribution, and patent rights would exist in name only.

IV. *QUID PRO QUO* AND CONCLUSION

In 1880, Thomas Edison was incentivized by a robust patent system to conceive of the electric light bulb.[152] The seventeen years[153] paid in patent exclusivity to Edison by the American populace in exchange for public disclosure and commercial availability of the incandescent bulb is indisputably dwarfed by royalty-free public use after his patent expired over one-hundred years ago. While the value of the electric light bulb will, given sufficient time, likely dim to more efficient light sources, a compelling fictional plot is an unbreakable diamond that will die only with humanity. If the electric light bulb's astronomical bang per buck is the poster child of a successful patent law regime at its best, how much more impressive would a regime be that induced inventors to create

---

151 *See* 35 U.S.C. § 101 (2006).

152 *See*, *e.g.*, Electric Lamp, U.S. Patent No. 223,898 (issued Jan. 27, 1880).

153 The Patent Act of 1861 increased the term of a patent grant from 14 to 17 years from issue. Effective June 8, 1995, U.S. patent law was amended to change the patent term to twenty years from the earliest effective filing date. *See* 35 U.S.C. § 154 (2006). Because a patent typically issues more than three years after filing, the effective available patent term for applications filed after June 8, 1995 is often less than seventeen years.

value having effectively infinite life, all for the low, low price of less than seventeen years of exclusivity?[154]

Even the most liberal critics of the U.S. patent system, e.g., those who oppose software patents and patents on essential pharmaceutical products, do not seem to doubt that information-processing apparatuses, such as silicon microprocessors, should be (and are) patentable. Amazingly, because of the exceptionally short market life of each patentably-distinct microprocessor improvement relative to the patent system's twenty-years-from-filing monopoly grant, a patentee effectively owns that improvement for its *entire useful life*.[155] Of course, microprocessors are the extreme example, but virtually every inventive field of endeavor is rife with inventions whose valuable life ended or will end before expiration of the associated patent.[156] In fact, the incandescent light bulb's useful life in excess of a century is the exception and not the rule.

In sharp contrast, the useful life of a fictional plot unarguably exceeds the life of any patent on it and, as suggested, could be effectively eternal. While personal vehicles powered by steam are almost certainly a distant memory never again to reemerge, an incredibly good storyline is likely to reappear generation after generation until humanity ceases to exist. If the purpose of the patent system is *quid pro quo*, whereby the public obtains the benefits of prolific, incentivized inventing coupled with early public disclosure in exchange for a limited private property right, then how can one argue that the patent system succeeds in cases where the entire value of the invention is enjoyed during the patent term but fails in cases where the value extends long after the patent term?

One may argue that a patented microprocessor is still valuable to the public even when the particular microprocessor is obsolete, because the public disclosure allowed other inventors to improve on the device. While that may be true, that argument is no less potent in the case of patented storylines. In other words, on sum, the price per benefit paid by the public for storyline patents is necessarily and significantly less than that for all other patents. If the concept of *quid pro quo* is to have any meaning and credibility in the U.S. patent system, then storyline patents are at least as beneficial as other patents to the American public.

---

154 *See supra* note 145 and accompanying text.

155 For example, a particular patented silicon microchip that is rendered obsolete in three years enjoyed patented status during its entire useful life.

156 Only approximately 42.5% of U.S. patents are maintained beyond their twelfth year, indicating that the economically valuable life of the remaining patents ended before the entire potential twenty-year term. Johnathan A. Barney, *Comparative Patent Quality Analysis: A Statistical Approach for Rating and Valuing Patent Assets*, PatentRatings.com, http://www.patentratings.com/001/nacv_white_paper.sv (last visited June 21, 2005).

In spite of various concerns to the contrary, storyline patent applications probably do not inherently fail any statutory test, even if many particular applications would fail under at least one of the definiteness, novelty, and nonobviousness standards. Further, First Amendment concerns will probably fail to prevent the issuance and enforcement of storyline patents, in part because a patentee is a private actor enforcing private property rights, and in part because the extent to which the First Amendment forecloses storyline patents is the extent to which the same rule of law would predictably destroy the entire patent system. Concerns about stifling creativity, patent overbreadth, and destructive economics induced by the litigiousness of so-called "patent trolls" are generic to the patent system as a whole. If these dangers and economic costs are indeed outweighed by reciprocal benefits to the public, then champions of the U.S. patent system will recognize that storyline patents have the potential to impart at least the same net benefit as other patents.