

HIGH SCORE? SUBJECT MATTER PATENTABILITY OF VIDEO GAMEPLAY METHODS AFTER *IN RE BILSKI*

I. INTRODUCTION

Intellectual property law in the United States, comprising of trademarks, trade secrets, copyrights, and patents, affords protection to artistic and commercial creations of the mind, such as video games.¹ Once a niche market that began in the 1970's,² video game related sales reached \$21.33 billion in 2008.³ Vying for the high score of the available market share, all players must now realize it is game over for broad patent protection on video gameplay methods in the wake of the recent decision *In re Bilski*.⁴

Part II explains the concept of video gameplay methods. Part III illuminates how video gameplay methods became patent eligible subject matter. Part IV discusses *In re Bilski*, which resolved⁵ the scope and test for statutory subject matter patentability; in particular, the ability to patent process inventions like business methods. Part V examines the affect of *Bilski* on the ability to patent a video gameplay method.

1. See Ralph Baer, *Genesis: How the Home Video Games Industry Began*, http://www.ralphbaer.com/how_video_games.htm (last visited Mar. 16, 2009).

2. See KLOV.com, http://www.klov.com/C/Computer_Space.html. (stating that Computer Space is a video arcade game that was released in November 1971 by Nutting Associates and is generally accepted as the world's first commercially sold coin-operated video game).

3. See *2008 US video sale reached \$21.33 bln*, IT FACTS, Jan. 15, 2009, <http://www.itfacts.biz/2008-us-video-game-sales-reached-2133-bln/12439>. IT Facts, <http://www.itfacts.biz/2008-us-video-game-sales-reached-2133-bln/12439> (Jan. 15, 2009).

4. *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008).

5. Unless the Supreme Court grants *Bilski* certiorari. See *In re Bilski* 545 U.S. 942 (Fed. Cir. 2008), *petition for cert. filed*, 77 U.S.L.W. 3442 (Jan. 28, 2009) (No. 08-964).

II. WHAT ARE VIDEO GAMES AND GAMEPLAY METHODS?

While video games “can roughly be described as computers programmed to create on a television screen cartoons in which some of the action is controlled by the player,”⁶ the concept of a video gameplay method (the game experience) is more illusive. Because all video games require a player to interact with an on screen image, this symbiotic relation defines the play method. From their inception video gameplay methods determined: 1) the platform used to play the video game⁷; 2) the genre the game is set in⁸; 3) what perspective the player views the game; and 4) how to advance to the next level, win, or obtain the high score. As technology advanced video games developed from the very simple play method of PONG[®] to extremely complex modern methods such as Grand Theft Auto[®] 4.

The blend of gameplay interaction combined with sheer entertainment value is a personal preference drawing players towards the various titles, genres, or franchises game developers have to offer. Consequently, the more players enamored with a particular method of gameplay, *e.g.*, simulated football or basketball, the greater likelihood of a developer’s ability to achieve large profits by having a unique way of realizing this method. Thus, the ability to broadly claim, protect, and exclude others from utilizing a particular gameplay method would be an extremely advantageous business asset worth procuring.

Due in part to the shortcomings of other intellectual property rights, only a patent would provide protection for a video gameplay method. Trademarks seek to avoid likelihood of confusion within the marketplace through identifying and distinguishing the source of goods of one party from those of others. As such, a trademark only protects the word, phrase, symbol, or design a developer gives to the method, not the underlying process itself.⁹ A trade secret is information providing its holder a competitive edge by virtue of secrecy.¹⁰ For a trade secret to protect a video gameplay method the developer would have to refrain from ever releasing the game. Once made available to the public, the video gameplay method would be divulged and there would no longer

6. Stern Electronics, Inc. v. Kaufman, 669 F.2d 852, 853 (2d Cir. 1982).

7. See GameFly.com Store, <http://www.gamefly.com/products/search.asp?k=&pf=2&sub=1&sb=mostpop&spsrch.x=20&spsrch.y=9> (allowing a gamer to search for games based on multiple criteria, namely: platform, genre, and method of gameplay).

8. *Id.*

9. See United States Patent and Trademark Office, *Trademark, Copyright or Patent?*, http://www.uspto.gov/web/offices/tac/doc/basic/trade_defin.htm (last visited Mar. 9, 2009).

10. See UNIFORM TRADE SECRETS ACT § 1(4) (1985).

be any trade secret to protect. Lastly, copyrights protect original works of authorship fixed in a tangible medium of expression.¹¹ This would only safeguard the visual and audio elements of the gameplay method. Thus, competitors would be allowed to “use the idea of a video game involving asteroids, so long as they adopt a different expression of the idea-*i.e.*, a version of such a game that uses symbols, movements, and sounds that are different from those used in plaintiff’s game.”¹² Because of these inherent limitations in trademark, trade secret, and copyright law, a video gameplay method, if eligible and entitled, could only be protected through a patent.

III. PATENTS AND THE PROTECTION THEY AFFORD VIDEO GAMEPLAY METHODS

A. *The Basics of Patent Law*

The Constitution explicitly grants Congress the power to “promote the Progress of Science and useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their . . . Discoveries.”¹³ Seeking to encourage production of utilitarian works, Congress responded by enacting patent laws¹⁴ granting an exclusive yet limited private monopoly¹⁵ to the inventor in exchange for disclosure and ultimate dedication of the work to the public domain upon expiration of the patent.

A patent protects the subject matter of the idea and while “an idea of itself is not patentable, . . . a new device by which it may be made practically useful is.”¹⁶ For any invention to be granted a patent, entitlement to and eligibility for the grant must separately be determined. For an inventor to be entitled to a patent on a claimed invention, the Patent Act requires the invention to meet specific utility, novelty, non-obviousness, and disclosure requirements.¹⁷ However, before the United States Patent and Trademark Office will decide entitlement to the patent, the claims must be patent eligible, *i.e.*, they

11. See 17 U.S.C. § 102 (2006).

12. *Atari, Inc. v. Amusement World, Inc.*, 547 F. Supp. 222, 227 (D. Md. 1981).

13. U.S. CONST. art. 1, § 8, cl. 8.

14. See generally 35 U.S.C. §§ 1-376 (2006) (the first patent act was enacted by congress in 1790).

15. See 35 U.S.C. § 154 (2006) (“[G]rant to the patentee . . . the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States . . .”).

16. *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. 498, 507 (U.S. 1874).

17. See 35 U.S.C §§ 101, 102, 103, 112 (2006).

must encompass the statutory subject matter proscribed under 35 U.S.C § 101; namely, a process, machine, manufacture, or composition of matter.¹⁸ While the Supreme Court has noted that Congress intended statutory subject matter to “include anything under the sun that is made by man,”¹⁹ the Court has limited statutory eligibility to exclude fundamental principles, such as the laws of nature, physical phenomena, and abstract ideas as not patent eligible.²⁰

Comprehension of patent eligibility for a machine, manufacture, or composition of matter, all being physical objects, is straightforward. A “process” being a series of procedures or actions concluding in an end result that may entirely lack physicality, is more difficult to grasp.²¹ A video gameplay method would therefore be a process.²² And the difficulty over the years was determining whether the “process” of a gameplay method, such as first person shooter perspective, is a fundamental principle, and therefore not eligible for patent protection.

B. Is the Software that Enables the Process of a Video Gameplay Method Patentable Eligible?

When video games first appeared they were machine-implemented devices in which the gameplay method was intertwined with the hardware. If the apparatus was patentable, the gameplay method was encompassed by and protected within the scope of the patent.²³ By the second generation, however, video games evolved and the gameplay

18. *Id.* See 35 U.S.C § 101 (2006).

19. See *Diamond v. Chahrabarty*, 447 U.S. 303, 309 (1980) (citing S.Rep.No.1979, 82d Cong., 2d Sess., 5 (1952)).

20. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). (“This Court has undoubtedly recognized limits to §101 and every discovery is not embraced within the statutory terms. Excluded from such patent protection are laws of nature, natural phenomena, and abstract ideas.”).

21. *Bilski*, 545 F.3d at 951-952.

22. See 35 U.S.C § 100(b) (2006) (stating the term “process” means process, art, or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material); *Cochrane v. Deener*, 94 U.S. 780, 788 (1877) .

A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing. If new and useful, it is just as patentable as is a piece of machinery. *Id.*

23. See *Television Gaming Apparatus*, U.S. Patent No. RE28,507 (filed Apr. 25, 1974) (issued Aug. 1975). The ‘507 patent claimed an apparatus that performed the now familiar “ball and paddle” video game. *Id.* The apparatus, containing no software, generated a hitting symbol image (the player’s paddle) and a hit symbol image (the ball) on the television. *Id.* The hitting symbol, manipulated by at least one participant, sent the hit symbol image (the ball) in the opposite direction when it contacted the hitting symbol image (the paddle). *Id.* The actual video gameplay method, however, was not claimed in the 507 patent.

method was carried out via microprocessor based software code.²⁴ Nevertheless the software, such as a video game engine²⁵ using mathematical formulas to instruct hardware to carry out a process like driving an on-screen car, was not the process itself. During this second generation the operative issue for protection of a video gameplay method was whether a process, ultimately realized through software, was eligible subject matter and not merely a fundamental principle expressed as a mathematical formula.

In 1972 the Supreme Court's holding in *Gottschalk v. Benson*²⁶ rejected an attempt to patent a method for converting numerical information from binary-coded decimal numbers into pure binary numbers realized by a software process programmed on a general purpose computer.²⁷ This rejection was rationalized because instead of claiming the method to be performed on a known machine the claims merely sought protection for a series of mathematical calculations that could be done mentally and were thus regarded as abstract ideas.²⁸

It wasn't until 1981, in *Diamond v. Diehr*,²⁹ that a process incorporating software was considered patent eligible subject matter. In *Diehr*, the issue before the court was "whether a process for curing synthetic rubber which includes in several of its steps the use of a mathematical formula and a programmed digital computer is patentable subject matter under 35 U.S.C. § 101."³⁰ The Court held that Respondents' claim was a process for molding rubber products and not an attempt to patent an abstract idea or mathematical formula used by software to control the operations of the molding equipment.³¹

Therefore, while software is not patentable subject matter, *per se*, a claimed invention that contains functional descriptive material,³² such

24. The code was burned onto ROM chips (read-only memory that is not capable of being changed), stored within a cartridge then inserted into a video game console which read the program and allowed the game to be played.

25. Jeff Ward, *What is a game engine?* GAME CAREER GUIDE, Apr. 29, 2008, http://www.gamecareerguide.com/features/529/what_is_a_game_.php. (stating that a game engine is the core software that provides the underlying visual and audio technologies, simplifies development, and often enables a video game to run on multiple platforms).

26. 409 U.S. 63 (1972).

27. *Id.* at 71-72 ("The mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed, the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.").

28. *Id.*

29. 450 U.S. 175 (1981).

30. *Id.* at 177.

31. *Id.* at 187.

32. *Id.* at 196.

as software stored on a computer-readable medium, then becomes structurally and functionally interrelated to the process or machine. Hence, the utilization of this software-enabled process falls within eligibility under 35 U.S.C. § 101 because use of a machine, for example a computer, permits the function and process of the descriptive material to be realized.³³

C. Is a Video Gameplay Method Patent Eligible Subject Matter?

Since *Diehr* held software-enabled processes carrying out a physical function are patent eligible subject matter, the next step was to determine whether a process having no physical result, such as the gameplay method of a flight simulator, was also eligible under §101. This issue was resolved in 1998 when the landmark case dealing with software-enabled processes and the methods they performed was decided in *State Street Bank & Trust Co. v. Signature Financial Group*.³⁴

In *State Street* the issue on summary judgment was, “[w]hether computer software that essentially performs mathematical accounting functions and is configured to run on a general purpose (*i.e.*, personal) computer is patentable under 35 U.S.C § 101.”³⁵ The Court of Appeals for the Federal Circuit (CAFC) reversed the district court’s conclusion that the absence of physicality made the patent invalid and held that the claims were statutory subject matter.³⁶ Thus, *State Street* ended exclusion of the judicially-created “business methods”³⁷ as statutory subject matter and proclaimed that “business methods have been, and should have been, subject to the same legal requirements for patentability as applied to any other process or method.”³⁸

By analogy, a video gameplay method, like the business method in *State Street*, is a computer software-enabled process configured to run on a video game console which, while lacking a physical result, is nevertheless patent eligible subject matter under 35 U.S.C. § 101. However, the boundaries of § 101 and the exclusion of certain claimed inventions from eligibility was not fully clarified until *In re Bilski*.³⁹

33. See generally Manual for Patent Examining Procedures § 2106.01, available at <http://www.uspto.gov/web/offices/pac/mpep/index.html>.

34. 149 F.3d 1368, 1373 (Fed. Cir. 1998).

35. *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 927 F. Supp. 502 (D. Mass. 1996).

36. *State St. Bank*, 149 F.3d at 1373.

37. *Id.* at 1375.

38. *Id.*

39. 545 F.3d 948 (Fed. Cir. 2008).

IV. WHETHER VIDEO GAMEPLAY METHODS WILL RECEIVE BROAD
COVERAGE AFTER *IN RE BILSKI*

A. Summary of the Case

Bernard L. Bilski and Rand A. Warsaw (Applicants') filed U.S. Patent Application Serial No. 08/833,892 with the United States Patent and Trade Mark Office (USPTO) on April 10, 1997, entitled "Energy Risk Management Method."⁴⁰ The Applicant's claims sought to patent a business method which allowed a commodity provider to manage the consumption risks associated with a commodity sold at a fixed price.⁴¹ As a threshold inquiry the claims were first examined to determine whether they were eligible subject matter under 35 U.S.C. § 101. In this case, upon the examining attorney's final rejection of all eleven claims, Applicants' appealed to the Board of Patent Appeals and Interferences (Board) for a determination of whether the claimed method was a statutory process under §101.⁴² The Board rejected all of the Applicants' claims under §101 on three grounds: 1) they were not a patentable "process" as they were not tied to any particular machine nor did they pass the "transformation" test;⁴³ 2) were an "abstract idea,"⁴⁴ and 3) did not recite a "practical application" or a "concrete and tangible result" under the *State Street* test.⁴⁵ Applicants' appealed the Board's rejection to the Court of Appeals for the Federal Circuit (CAFC), which first heard arguments on October 1, 2007, and prior to decision held an *en banc* review on May 8, 2008 to address the issue of patentability under §101.⁴⁶

Upon *de novo* review the CAFC framed the issues as: 1) whether the claims recited a fundamental principle such as an abstract idea or mental process, and if so, would they pre-empt virtually all uses of the fundamental principle if allowed?;⁴⁷ 2) how to determine whether the claims would pre-empt all uses of a fundamental principle, *i.e.*, which test was the proper standard to determine whether a process claim is

40. *Ex parte* Bilski 2006 Pat. App. LEXIS 51 (Pat. App. 2006).

41. *See* U.S. Patent No. 08/833,892 (filed April 10, 1997).

42. *Ex parte* Bilski 2006 Pat. App. LEXIS 51, *56 (Pat. App. 2006).

43. *See id.*

44. *Id.* at *60.

45. *Id.* at *61.

46. *In re* Bilski, 545 F.3d 943, 949 (Fed. Cir. 2008).

47. *Id.* at 954.

patentable under §101?⁴⁸ and 3) whether the claims satisfied the correct machine-or-transformation test for eligibility under §101?⁴⁹

The CAFC's holding reaffirmed the Board's denial of the eleven claims as being non-statutory subject matter under §101. Furthermore, the CAFC's rationale for the decision: 1) clarified what a process claim under §101 may and may not encompass; 2) stated the proper determination for statutory patent eligibility was the machine-or-transformation test; 3) critiqued and rejected past tests to determine patent eligibility under §101; and 4) applied the machine-or-transformation test to the Applicant's claims.⁵⁰

1. What May a Process Claim Encompass?

For a determination and explanation of the scope process claims may encompass, the CAFC relied heavily upon Supreme Court precedent.⁵¹ A patent, by definition, grants the inventor the right to exclude all others from practicing that which it discloses. Therefore, the claimed subject matter of the patent directly pronounces the scope of the exclusion. Admittedly, while the four categories of §101 subject matter are broad, the Supreme Court has repeatedly held that claims of fundamental principles, even if limited to a specific field, are not patent eligible.⁵²

If a process claim were drawn only to a particular fundamental principle (such as an abstract idea like a mathematical algorithm) allowing the claim would in effect, “. . . allow the patentee to pre-empt substantially all uses of that fundamental principle.”⁵³ However, including a fundamental principle within a process claim that only seeks to exclude others from using a specific, “application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”⁵⁴

Clearly then one's process cannot claim exclusivity to a fundamental truth in and of itself.⁵⁵ This is easily understood because

48. *Id.*

49. *Id.* at 963.

50. *See id.*

51. *Id.* at 952 (discussing *Diamond v. Diehr* 450 U.S. 175 (1982); *Parker v. Flook* 437 U.S. 584 (1978); and *Gottschalk v. Benson* 409 U.S. 63 (1972), regarding the scope of the word “process” as used in § 101 as being narrower than its ordinary meaning).

52. *See Diamond v. Diehr*, 450 U.S. 175, 185 (1981) (citing *Parker v. Flook*, 437 U.S. 584, 589 (1978) and *Gottschalk v. Benson*, 409 U.S. 63 (1972)).

53. *In re Bilski*, 545 F.3d at 953.

54. *Id.*

55. *See Parker v. Flook*, 437 U.S. 584, 589 (U.S. 1978).

allowing a monopoly on such a principle would pre-empt virtually all others (during the term of the patent) from using that which is a basic tool of human endeavor. This would obviously be adverse to the promotion of, “. . . the Progress of Science and useful Arts.”⁵⁶ But if the claimed method recites a specific application of a fundamental principle it may be an eligible process under §101 if it is determined that pre-emption of the underlying fundamental principle would not occur. The CAFC then went on to explain the proper test for determining the issue of pre-emption.

2. How to Determine Whether a Process Claim Would Pre-empt all Uses of a Fundamental Principle

The CAFC enunciated that the Supreme Court’s definitive machine-or-transformation test was the proper standard to determine whether a process claim is too broad, and would pre-empt all uses of a fundamental principle, or tailored narrowly to a particular application of the fundamental principle.⁵⁷ Under the machine-or-transformation test a process claim would clearly be patent eligible under §101 if: “1) it is tied to a particular machine or apparatus, or 2) it transforms a particular article into a different state or thing.”⁵⁸ Adhering to Supreme Court precedent set in *Benson* (abstract) and *Diehr* (material), the CAFC stated this particular test works well for claims that are in between the extremities of eligibility; where “the more challenging process claims of the twenty-first century are seldom so clearly limited in scope.”⁵⁹

Thus, in the case of *Benson*, the inventor merely claimed a mathematical algorithm (considered an abstract idea or fundamental principle) having no relation to a particular machine.⁶⁰ Such claims, being so broad, would rightly fail both branches of the machine-or-transformation test. The court pointed out that in *Diehr*, the claims, while incorporating a mathematical algorithm, were applied to a “plainly corporeal industrial manufacturing process.”⁶¹ In this instance the claims would fulfill both branches of the machine-or-transformation test and meet the threshold eligibility because the process would not pre-empt the use of that fundamental principle by others, it would only exclude its use in conjunction with all of the other claimed steps in their

56. U.S. CONST. art. 1, § 8, cl. 8.

57. See *In re Bilski* 545 F.3d at 954.

58. *Id.*

59. *Id.*

60. *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972).

61. *In re Bilski*, 545 F.3d at 954.

process. Lastly, the CAFC reiterated the position in *Diehr* that when applying the machine-or-transformation test the recited machine or transformation must constitute more than mere “insignificant postsolution activity.”⁶²

Therefore, because the Patent Act seeks to promote utilitarian works, and pre-empting others from using the basic building blocks of our reality would stifle this goal, the machine-or-transformation test is now the current standard for determining whether a “process” may receive subject matter eligibility.⁶³

3. *Court of Appeals for the Federal Circuit’s Invalidation of Past Tests for Determining Patent Eligibility Under § 101*

Holding that the Supreme Court’s machine-or-transformation test is the proper standard for §101 determination, the CAFC critiqued and invalidated other judicially-created §101 tests. The first was the *Freeman-Walter-Able* test under which the court must: “1) determin[e] whether the claim recites an ‘algorithm’ within the meaning of *Benson* then, 2) determin[e] whether that algorithm is ‘applied in any manner to physical elements or process steps.’”⁶⁴ The CAFC acknowledges two arguments in its rejection of this test. First, it dissects a claim which goes against the Supreme Court’s requirement that a claim’s eligibility under §101 be analyzed as a whole.⁶⁵ Second, the test is inadequate because a claim failing this test may still be patent eligible.⁶⁶

The second test invalidated was the “useful, concrete, and tangible result” language associated with *State Street Bank & Trust Co. v. Signature Financial Group*⁶⁷ and *AT&T Corp. v. Excel Communications*.⁶⁸ The CAFC found this test inadequate noting that although it often provides an indication of whether a claim is drawn to a fundamental principle or a practical application of such a principle, the inquiry is simply insufficient for determination of patent eligibility under §101.⁶⁹ The court reasoned that almost any process tied to a particular machine, or transforming or reducing a particular article into a different state or thing, will generally produce a “concrete” and

62. *Id.* at 957. (quoting *Diamond v. Diehr* 450 U.S. 175, 191 (1981)).

63. *Id.* at 954.

64. *In re Bilski*, 545 F.3d at 959.

65. *Id.*

66. *Id.*

67. 149 F.3d 1368 (Fed. Cir. 1998).

68. 172 F.3d 1352 (Fed. Cir. 1999)

69. *Bilski*, 545 F.3d at 959-60 (citing *In re Abele* 684 F. 2d. 902, 905-07 (C.C.P.A. 1982)).

“tangible” result.⁷⁰ In effect, this language, if followed, would be a utility analysis test and a lower standard than that set by the Supreme Court’s machine-or-transformation test. Therefore, by declaring a utility analysis test as inadequate, the CAFC essentially reversed its own holding in *State Street*, and *AT&T*. The court held that this form of analysis should not be relied upon in place of the machine-or-transformation test which is the proper standard for determining whether process claims are patent eligible under §101.⁷¹

Third, the CAFC rebuffed an amicus proposed “technological arts test.”⁷² The court stated that determination of a process claims patent eligibility under this test would be, “unclear because the meanings of the terms ‘technological arts’ and ‘technology’ are both ambiguous and ever-changing.”⁷³ Furthermore, the court stated that they, as well as the Supreme Court and the Board, had never adopted this type of test.⁷⁴

Lastly, the CAFC clarified that their decision in *In re Comiskey*⁷⁵ did not announce a new §101 test barring any claim reciting a mental process that lacks significant “physical steps.”⁷⁶ The CAFC stated that whether a claim does or does not have any “physical steps” is irrelevant in light of the machine-or-transformation test.⁷⁷ Thus, the proper inquiry under §101 is not whether the process claim recites sufficient “physical steps,” but whether the claim meets the machine-or-transformation test.

Consequently, process claims that recite physical steps or provide “useful, concrete, and tangible result[s]” but neither claim a particular machine, nor transform any article into a different state or thing, are not drawn to patent-eligible subject matter. Conversely, a claim lacking any physical steps which *is* tied to a machine or achieves a qualified transformation, will be patent eligible under §101.

4. *The Machine-or-Transformation Test Applied to Bilski’s Claims*

The Supreme Court’s judicially-created machine-or-transformation test is a two branch test requiring only one portion to be satisfied for a process claim to be deemed patent eligible under §101. Under the

70. *Id.*

71. *Id.* at 961.

72. Brief of Amici Curiae Consumers Union, Electronic Frontier Foundation, and Public Knowledge for Hearing En Banc at 6-10, *In re Bilski* 545 F.3d 943, 960 (Fed. Cir. 2008) (No. 2007-1130) 2008 WL 1842260.

73. *In re Bilski*, 545 F.3d at 960.

74. *Id.*

75. *In re Comiskey*, 499 F.3d 1365 (Fed. Cir. 2007).

76. *In re Bilski*, 545 F.3d at 960.

77. *Id.* at 961.

machine branch, a claim reciting a fundamental principle must be tied to a particular, not general purpose, machine or apparatus.⁷⁸ The machine must also have meaningful limitations and may not merely be used as an insignificant post-solution activity.⁷⁹ Because the Applicants' claims did not recite any particular machine the CAFC declined to comment on specific issues to the machine implementation part of the test.⁸⁰

Under the transformation (of a particular article into a different state or thing) branch of the test the CAFC noted that the term "article" required clarification as to what transformation was sufficient to impart patent eligibility under §101.⁸¹ Clearly it is obvious that a chemical or physical transformation of raw materials is patent eligible. Yet the CAFC noted that, "[t]he raw materials of many information-age processes, however, are electronic signals and electronically-manipulated data."⁸²

At this time the CAFC did not want to expand upon case law of what constituted patent-eligible transformations of articles. Instead the CAFC briefly discussed *In re Abele*⁸³ which allowed a claim drawn to transforming an electronic signal to be patent eligible under §101 because, "the claim is limited to a visual depiction that represents specific physical objects or substances and there is no danger that the scope of the claim would wholly pre-empt all uses of the principle."⁸⁴ Therefore, because the CAFC's main concern is to prevent pre-emption of a fundamental principle, they only went so far as to hold that the transformation of a physical object was not required to pass the transformation test.⁸⁵

Applying the transformation branch of the test to the Applicants' claims the CAFC found the process claims failed because they only referred to "transactions" involving public or private legal obligations or relationships; the claims did not involve, "transformation of any physical object or substance, or an electronic signal representative of any physical object or substance."⁸⁶

In summary, because the CAFC does not want to pre-empt anyone from using a fundamental principle used towards the progress of science

78. *Id.* at 957.

79. *Id.* at 961-962.

80. *Id.* at 962.

81. *Id.*

82. *In re Bilski*, 545 F.3d at 963.

83. 684 F.2d 902 (C.C.P.A. 982).

84. *In re Bilski*, 545 F.3d at 963.

85. *Id.*

86. *Id.* at 964.

and the arts, they adhered to the Supreme Court's machine-or-transformation test to determine whether a claim is drawn to patent eligible subject matter under §101. Upon application of the machine-or-transformation test, the CAFC rejected all of the Applicants' claims. The only course that Applicants may now take is to call it game over or hope the Supreme Court will grant the case certiorari.⁸⁷

V. BILSKI'S AFFECT ON VIDEO GAMEPLAY METHODS

A. *Pre-emption of Fundamental Principles*

In relation to video gameplay methods, the decision in *Bilski* will not exclude a process, lacking in physical results, as non-statutory subject matter; it will only limit the scope a claim may encompass. Hence, a process claim will be ineligible under §101 if the method broadly claims a fundamental principle, such that allowing the claim would virtually pre-empt the use of that principle by other inventors.

For example, if "visualizing in first person perspective" were considered a fundamental principle, a pre-emption issue would arise if a gameplay method broadly claimed this process with out specifying whom, how or what is visually represented. In effect such a claim would attempt to exclude other inventions from incorporating a basic law of nature; namely, a common way in which humans perceive the universe. Conversely, a gameplay method claiming a fundamental principle that does not affect the ability of other inventors from applying the principle would be eligible if the gameplay method passed either branch of the Supreme Court's machine-or-transformation test.

Thus, a gameplay method of "visualizing in first person perspective" would be less broad, and arguably eligible, if this fundamental principle was applied via a particular game platform, interacted through a certain type of controller, and viewed on a display device in a certain manner.

B. *The Machine-or-Transformation Test Applied to a Video Gameplay Method*

Regardless of the CAFC's desire to later determine "the precise contours of machine implementation,"⁸⁸ video games by their very nature easily satisfy the, "tied to a particular machine or apparatus"

87. *In re Bilski* 545 U.S. 942 (Fed. Cir. 2008), *petition for cert. filed*, 77 U.S.L.W. 3442 (Jan. 28, 2009) (No. 08-964).

88. *Id.* at 962.

branch of the machine-or-transformation test. In general, all video games have four components in common: 1) hardware: the video game platform or console, which loads the video game and carries out its functions; 2) software: the core source code and game engine stored on various media and loaded into the memory of the hardware; 3) input devices connected to the hardware and used by the player to interact with visual feedback on the; 4) video display device where the visual images created by gameplay method appear. It follows then, for the gameplay method to be realized it would naturally be tied to a particular machine or apparatus and consequently eligible statutory subject matter under §101.

The more difficult question would be whether the electronic signals and electronically manipulated data that realize a video gameplay method would be an “article” under the “transformation” branch of the test. Accordingly, while a broad claim reciting a process of graphically displaying various gameplay methods without mention as to what the specific method is or represents would fail. A more narrow claim reciting a specific process of graphically displaying a gameplay method, for example a car chase depicted directly overhead in a “bird’s eye view,” may be considered transformation of an article, namely, electronic signals that are defined to represent what the gamer sees while playing the game in the “bird’s eye view” perspective. At this time, however, the transformation branch of the test as applied to a video gameplay method would be moot because all video games by their very nature incorporate some machine or apparatus.

As a result, to be patent eligible, *Bilski* forces a video gameplay method’s claim to be narrowly tailored, especially if it seeks to incorporate a fundamental principle. In addition, once the video gameplay method is eligible, the claims must further be examined for entitlement, before the patent may be granted. While a discussion of entitlement to a patent on a gameplay method is beyond the scope of this piece, it should be noted that because video games have been in existence since the early 1970’s, the question of whether the gameplay method could overcome the novelty⁸⁹ and non-obviousness⁹⁰ obstacles of prior art, must be considered.

89. Though novelty is not the subject of this piece it is interesting to note the lack of patented gameplay methods during 1972-98. Without a doubt there was a great deal of evolution and innovation within this period and therefore a patent examiner is more likely to grant a patent on claims for a gameplay method because of the apparent lack of known published prior art. This issue of novelty is likely an inherent weakness in the ability to patent video gameplay methods.

VI. CONCLUSION

Patent eligibility of subject matter under 35 U.S.C. §101 is the threshold requirement that must be determined before entitlement to a patent may be examined. While eligibility for a machine, manufacture, or composition of matter is easily ascertained it has been the more elusive “process” which has caused much debate and litigation. The precedents set by *Benson* through *Bilski* hold that software-enabled process claims lacking in physicality, *e.g.*, video gameplay methods, are qualifiedly patent eligible subject matter under §101.

With this eligibility and a desire to profit from the ever increasing video game industry, inventors may seek to obtain broad patent protection for a video gameplay method. However, *Bilski*'s utilization of the machine or transformation test will not extend protection to overall concepts or fundamental principles, only their specific applications. In conclusion, tomorrow's emerging video game technologies will not be excluded from subject matter patentability, so long as the claims do not forestall others from using the “raw materials” of future innovations.

*Thomas Connors**

90. The same can be said for non-obviousness. Because video games have been in public use since 1972 a new video game claiming an innovative method of gameplay would likely combine previously known methods likely to be obvious to those with ordinary skill in the art; and therefore, represents another possible inherent weakness in the ability to patent video gameplay methods.

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