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NTP v. RIM: The Diverging Law Between System and Method Claim Infringement

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I. INTRODUCTION

Almost thirty years after the landmark decision of *Decca Ltd. v. United States*,¹ the Federal Circuit had an opportunity to reevaluate the extraterritorial limits of U.S. patent law in *NTP, Inc. v. Research in Motion, Ltd.*² After withdrawing its initial opinion (“*NTP I*”) and issuing a second opinion (“*NTP II*”), the court held that a system having a component located outside U.S. jurisdiction could be subject to U.S. patent law.³ The court held as a matter of law, however, that a process in which a step is performed outside U.S. jurisdiction could not be subject to U.S. patent law.⁴ In *NTP I* and *NTP II*, the infringing system included a component located in Canada.⁵ Ironically, that infringing system was the platform on which the non-infringing process operated.⁶ The court’s justification for this result was based on the “collective” nature of systems compared to the “individual” nature of processes.⁷

This article analyzes the court’s decision and recommends an alternative holding in order to unify “system” and process infringement law. Additionally, this article examines the history of “system” claims to determine whether their current use as “machine” claims is consistent with their historical use.⁸ Given its historical context, this article then evaluates whether

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1. 544 F.2d 1070 (Ct. Cl. 1976) (per curiam). The opinions of the United States Court of Claims and the United States Court of Customs and Patent Appeals that were decided up until September 30, 1982 are binding precedent on the Federal Circuit. *South Corp. v. United States*, 690 F.2d 1368, 1369 (Fed. Cir. 1982).

2. 392 F.3d 1336 (Fed. Cir. 2004) (*NTP I*), *withdrawn*, 418 F.3d 1282 (Fed. Cir. 2005) (*NTP II*), *cert. denied*, 126 S. Ct. 1174 (2006).

3. *NTP II*, 418 F.3d at 1317.

4. *Id.* at 1318.

5. *Id.* at 1290; *NTP I*, 392 F.3d at 1342.

6. *NTP II*, 418 F.3d at 1318.

7. *Id.* (“Because a process is nothing more than the sequence of actions of which it is comprised, the use of a process necessarily involves doing or performing each of the steps recited. This is unlike use of a system as a whole, in which the components are used *collectively*, not *individually*.” (emphasis added)).

8. “System” is not included in the five statutory classifications of the patent system. *See* 35 U.S.C. § 101 (2006) (the five statutory classifications are process, machine, manufacture, composition of matter, and an improvement thereof).

a preamble including a “system” should limit a claim’s scope under the current law. Finally, this article evaluates the effect of the court’s decision on communications and secondary-use patents.⁹

II. BACKGROUND

NTP owns five patents for “integrating existing electronic mail [‘email’] systems with radio frequency (‘RF’) wireless communication networks . . . enabl[ing] a mobile user to receive email over a wireless network.”¹⁰ Thus, an email message may be transmitted both traditionally through an existing email system to a personal computer as well as wirelessly to a handheld receiver.¹¹ This wireless transmission is “advantageous because it eliminat[es] the requirement that the destination processor [be] turned on and carried with the user to receive messages.”¹²

Research in Motion (“RIM”) sells the BlackBerry system, consisting of a handheld unit, email redirector software, and access to a nationwide wireless network.¹³

The BlackBerry system utilizes “push” technology to automatically forward email through RIM’s wireless network without a “user-initiated connection.”¹⁴ The email redirector software “copies, encrypts, and routes” new email messages to a relay located in Canada, “where it is translated and routed from the processors in the user’s email system to a partner wireless network.”¹⁵ Additionally, BlackBerry users can send email messages from their handheld unit using the same wireless network.¹⁶

9. A secondary use patent relates to a new use for an old material or apparatus. *See* *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1378 (Fed. Cir. 2005) (“[A] patent to an apparatus does not necessarily prevent a subsequent inventor from obtaining a patent on a new method of using the apparatus. New uses of old products or processes are indeed patentable subject matter.” (citations omitted)).

10. *NTP II*, 418 F.3d 1282, 1287-89 (Fed. Cir. 2005). The patents at issue were U.S. Patent No. 5,436,960 (filed May 20, 1991) (“the ‘960 patent”); U.S. Patent No. 5,625,670 (filed May 18, 1995) (“the ‘670 patent”); U.S. Patent No. 5,819,172 (filed Apr. 23 1997) (“the ‘172 patent”); U.S. Patent No. 6,067,451 (filed Sept. 28, 1998) (“the ‘451 patent”); and U.S. Patent No. 6,317,592 (filed Dec. 6, 1999) (“the ‘592 patent”). *Id.* at 1287.

11. *Id.* at 1289.

12. *Id.* (quoting the ‘960 patent col.18 ll.44-46 (quotations omitted)).

13. *Id.*

14. *Id.*

15. *Id.* at 1289-90.

16. *Id.* at 1290.

III. PROCEDURAL HISTORY

NTP sued RIM in November 2001 alleging patent infringement.¹⁷ NTP contended that RIM's BlackBerry system infringed over forty of NTP's "system" and method claims.¹⁸ Before trial, NTP prevailed on its motion for partial summary judgment of infringement of four claims.¹⁹ The remaining claims were fully litigated and then submitted to a jury.²⁰

At summary judgment, the court agreed that "to establish direct infringement under [35 U.S.C.] § 271(a), NTP was obligated to show that RIM practiced all of the steps of the process patented in [NTP's] inventions in the United States."²¹ The court later changed its position, however, by instructing the jury that "the location of RIM's [r]elay in Canada does not preclude infringement."²²

The jury reached a verdict in favor of NTP on all counts presented.²³ This included direct, induced, and contributory infringement.²⁴ Furthermore, the jury found that RIM willfully infringed.²⁵ The jury awarded NTP over fifty three million dollars in damages based on compensatory damages, attorneys' fees, prejudgment interest, and enhanced damages.²⁶

On appeal, the Federal Circuit affirmed the district court's judgment that RIM infringed NTP's "system" and method claims.²⁷ RIM filed "a combined petition for panel rehearing and rehearing en banc."²⁸ The Federal Circuit granted the petition for panel rehearing and withdrew its original opinion.²⁹ The replacement opinion held that RIM infringed NTP's "system" claims but not its method claims due to the location of RIM's relay station in Canada.³⁰

17. *Id.*

18. *Id.*

19. *Id.* at 1291.

In its motion, NTP argued: (1) that the 800 and 900 series BlackBerry handheld units infringed claim 248 of the '451 patent and claim 150 of the '592 patent; (2) that the BES software infringed claim 653 of the '592 patent; and (3) that the BlackBerry system, software, and handhelds infringed claim 15 of the '960 patent.

Id. (citation omitted).

20. *Id.*

21. *Id.* at 1314 (citation omitted).

22. *Id.*

23. *Id.* at 1291.

24. *Id.*

25. *Id.*

26. *Id.* at 1292; *see* 35 U.S.C. §§ 284, 285 (2006) (stating that the court can provide enhanced damages "up to three times the amount found or assessed" and providing for attorneys' fees in "exceptional cases").

27. *NTP I*, 392 F.3d 1336, 1370 (Fed. Cir. 2004).

28. *NTP II*, 418 F.3d 1282, 1286 (Fed. Cir. 2005).

29. *Id.*

30. *Id.* at 1317-18.

IV. THE FEDERAL CIRCUIT'S DECISION IN *NTP II*

The Federal Circuit began its infringement analysis by evaluating the language of the relevant statute for patent infringement, 35 U.S.C. § 271(a).³¹ The statute provides that “whoever without authority makes, uses, offers to sell, or sells any patented invention, *within the United States* or imports *into the United States* any patented invention during the term of the patent therefor, infringes the patent.”³² The court framed the issue as “whether the using, offering to sell, or selling of a patented invention is an infringement under section 271(a) if a component or step of the patented invention is located or performed abroad.”³³ Thus, the court recognized that “within the United States” was a further limitation to § 271(a) beyond the infringing acts of making, using, offering to sell, selling, or importing.³⁴ The court went on to state that “it is unclear from the statutory language how the territoriality requirement limits direct infringement where the location of at least a part of the ‘patented invention’ is not the same as the location of the infringing act.”³⁵

Both the *NTP I* and *NTP II* courts distinguished *Deepsouth Packing Co. v. Laitram Corp.*,³⁶ the “seminal case addressing the territoriality of section 271(a).”³⁷ In *Deepsouth*, the plaintiff, Laitram Corporation, owned two patents on shrimp-deveining machines.³⁸ To bypass Laitram’s patents, Deepsouth sought to “make the parts of [the] deveining machines, to sell them to foreign buyers, and to have the buyers assemble the parts and use the machines abroad.”³⁹ The Supreme Court held that Deepsouth could not be liable for direct infringement under 35 U.S.C. § 271(a).⁴⁰ The Court stated that Deepsouth did not “make” the patented machines within the United States because Deepsouth only made the machine’s parts.⁴¹ There-

31. *Id.* at 1315.

32. 35 U.S.C. § 271(a) (emphasis added).

33. *NTP II*, 418 F.3d at 1315. The court framed the issue differently in *NTP I*: “[t]he question before us is whether the location of a component of an accused system abroad, where that component facilitates operation of the accused system in the United States, prevents the application of section 271(a) to that system.” 392 F.3d at 1368.

34. *NTP II*, 418 F.3d 1282, 1315 (Fed. Cir. 2005).

35. *Id.*

36. 406 U.S. 518 (1972).

37. *NTP II*, 418 F.3d at 1315; *NTP I*, 392 F.3d 1336, 1368 (Fed. Cir. 2004).

38. 406 U.S. at 519-20.

39. *Id.* at 523.

40. *Id.* at 529.

41. *Id.* at 528-29. The Court stated that:

We cannot endorse the view that the “substantial manufacture of the constituent parts of (a) machine” constitutes direct infringement when we have so often held that a combination patent protects only against the operable assembly of the whole and not the manufacture of its parts. “For as we pointed out in *Mercoid v. Mid-Continent Investment Co.*[, 320 U.S. 661 (1944) (*Mercoid I*),] a patent on a combination is a patent on the assembled or function-

fore, Deepsouth could not “use” the patented machines within the United States.⁴² Congress responded to *Deepsouth* in 1984 by “enact[ing] [35 U.S.C.] § 271(f), which extends infringement liability to cover the export of elements of patented inventions.”⁴³

The *NTP I* and *NTP II* courts distinguished *Deepsouth* based on the location of the infringing device in each case.⁴⁴ In *Deepsouth*, “the key premise . . . was that Deepsouth was not using the machines in the United States as a ‘whole operable system assembly’ because Deepsouth did not combine the components for use in the United States.”⁴⁵ In contrast, the *NTP I* court stated that “the location of the infringement [in this case] is within United States territory, not abroad as in *Deepsouth*.”⁴⁶ The *NTP II* court further elaborated that in *Deepsouth*, “both the act of making and the resulting patented invention were wholly outside the United States. By contrast, this case involves a system that is partly within and partly outside the United States and relates to acts that may be occurring within or outside of the United States.”⁴⁷

Both the *NTP I* and *NTP II* courts relied on *Decca Ltd. v. United States*⁴⁸ to determine whether RIM infringed even though its relay was located in Canada.⁴⁹ In *Decca*, the United States government operated a terrestrial global positioning system called “Omega.”⁵⁰ The system worked by broadcasting synchronized radio signals from a series of stations located around the world.⁵¹ Ships and aircraft could receive those signals and then calculate their location based on the differences between signal arrival times.⁵² At the time of the suit, the government owned two broadcasting stations in the United States and one in Norway.⁵³ Since signal timing was critical to determine global positioning, the Norwegian station was precisely synchronized with the United States stations.⁵⁴ Thus, the foreign

ing whole, not on the separate parts.” *Mercoird Corp. v. Minneapolis-Honeywell Regulator Co.*, 320 U.S. 680, 684 [(1944)].

Id. at 528.

42. *Id.* at 527.

43. *NTP I*, 392 F.3d 1336, 1369 (Fed. Cir. 2004); *see* 35 U.S.C. § 271(f) (2006).

44. *NTP II*, 418 F.3d 1282, 1315 (Fed. Cir. 2005); *NTP I*, 392 F.3d at 1369.

45. *NTP I*, 392 F.3d at 1369.

46. *Id.* (quoting *Decca Ltd. v. United States*, 544 F.2d 1070, 1074 (Ct. Cl. 1976)).

47. 418 F.3d at 1315.

48. 544 F.2d 1070 (Ct. Cl. 1976) (per curiam) (binding precedent to the Federal Circuit according to *South Corp. v. United States*, 690 F.2d 1368, 1369 (Fed. Cir. 1982)).

49. *NTP I*, 392 F.3d 1336, 1369 (Fed. Cir. 2004).

50. 544 F.2d at 1074.

51. *Id.*

52. *Id.*

53. *Id.*

54. *Id.*

station in Norway was akin to a “slave” station, which could not exert any control over the system.⁵⁵

The *Decca* court determined that the government infringed three claims of Decca’s ‘816 Patent.⁵⁶ The focus of the court’s analysis was whether the government infringed claim 11, which recited “[a] hyperbolic radio navigation system” having three transmission stations.⁵⁷ Since the government only owned two transmission stations in the United States, direct infringement of claim 11 could only occur if the Norwegian station “counted.”⁵⁸ The court determined that the government’s liability was based on a theory of “use” rather than “making.”⁵⁹ The court summarized its finding of liability by stating:

This conclusion does not rest on any one factor but on the combination of circumstances here present, with particular emphasis on the ownership of the equipment by the United States, the control of the equipment from the United States and on the actual beneficial use of the system within the United States.⁶⁰

The *NTP I* court applied *Decca*’s “control and beneficial use” test to RIM’s BlackBerry device and system to establish infringement of NTP’s “system” and method claims under § 271(a).⁶¹ Upon rehearing, however, the *NTP II* court distinguished “system” claims from method claims and held that RIM infringed the “system” claims but could not infringe the method claims due to the relay’s location in Canada.⁶²

The *NTP II* court rejected RIM’s argument “that the BlackBerry system is distinguishable from the system in *Decca* because the RIM [r]elay, which controls the accused systems and is necessary for the other components of the system to function properly, is not located within the United

55. *Id.* A master/slave system is “[a] system of interlinked computers under the control of one computer (master computer).” MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS 1289 (6th ed. 2003).

56. U.S. Patent No. 2,844,816 (filed Mar. 7, 1955). The suit was brought under 28 U.S.C. § 1498, which provides a private party with a cause of action against the government to recover financially from patent infringement. *See* 28 U.S.C. § 1498 (2006); *Decca Ltd. v. United States*, 544 F.2d 1070, 1072 (Ct. Cl. 1976).

57. *Id.* at 1081.

58. *Id.*

59. *Id.* at 1082-83.

60. *Id.* at 1083. The court’s only authority for this proposition rests in *Rosen v. NASA*, 152 U.S.P.Q. 757 (B.P.A.I. 1966). *Id.* In *Rosen*, the Board of Patent Interferences held “that an invention concerning space satellites was reduced to practice in the United States because of the location of control stations here.” *Id.* Analysis of *Rosen* and its authority over the Court of Claims is beyond the scope of this article. *See generally* Daniel P. Homiller, *From Deepsouth to the Great White North: The Extraterritorial Reach of United States Patent Law After Research in Motion*, 2005 DUKE L. & TECH. REV. 17, ¶¶ 11-12 (2005) (critiquing the application of *Rosen* to *Decca* and *NTP I*).

61. *NTP I*, 392 F.3d 1336, 1370 (Fed. Cir. 2004).

62. 418 F.3d 1282, 1317-18 (Fed. Cir. 2005).

States.”⁶³ The court found that while this was a valid technical difference, the use of the system by U.S. customers, like the use in *Decca* by the U.S. government, was “as a whole,” within the United States.⁶⁴

The *NTP II* court’s method analysis distinguished *Decca* and *Deep-south* because “there is no corresponding whole operable assembly of a process claim.”⁶⁵ The court further elaborated by stating that

[b]ecause a process is nothing more than the sequence of actions of which it is comprised, the use of a process necessarily involves doing or performing each of the steps recited. This is unlike use of a system as a whole, in which the components are used collectively, not individually.⁶⁶

Thus, each process step must be performed within the United States in order to infringe under § 271(a).⁶⁷

V. HISTORY OF SYSTEM CLAIMS

A “system” is generally equated to an apparatus or machine.⁶⁸ For instance, a “system” usually contains several components that are used “collectively” to achieve a particular result.⁶⁹ A “system,” however, is not itself one of the five statutory classifications in the patent system.⁷⁰ Therefore, it is helpful to analyze the historical roots of “system” to determine how it evolved within the statutory classification system.

Many early “system” patents taught processes or methods. The first United States patent incorporating the term “system” was issued in 1837 under the title “System of Cutting Garments.”⁷¹ This patent teaches a process of taking body measurements and then transferring those measurements onto a piece of fabric to create an article of clothing.⁷² While

63. *Id.* at 1317.

64. *Id.*

65. *Id.* at 1317-18.

66. *Id.* at 1318.

67. *Id.*

68. *See id.* (distinguishing between “systems” and “processes”).

69. *Id.*

70. 35 U.S.C. § 101 (2006). The five statutory classifications are process, machine, manufacture, composition of matter, and any “new and useful” improvement thereof. *Id.*

71. U.S. Patent No. 256 (issued July 11, 1837).

72. *Id.* Claim 1 is representative: “I claim in the above system of measuring and plotting—1. Taking the level around the waist, the variations of straight and stooping men being above this line.” *Id.*

this claim was drafted in central-claiming style,⁷³ the term “system” appears to be used in a manner equivalent to a modern claim preamble.⁷⁴

Another “system” patent, issued shortly thereafter in 1839, sets forth a “Mode of Writing Music.”⁷⁵ This patent teaches a “system of music,” which appears to be a process of writing music to indicate the note, length, and intonation.⁷⁶ There are no individualized claims in this patent to analyze how “system” is used.⁷⁷ A third patent, issued in 1840, sets forth a “Mode of Hauling off Stranded Vessels.”⁷⁸ This patent teaches a “system of procedure” (i.e., a method) for arranging various pieces of apparatus to haul away a stranded ship.⁷⁹ Arguably, this patent also teaches a machine by creating a combination apparatus to haul away the stranded ship.⁸⁰ “System” is used three times in the patent specification but it is not used in any claims.⁸¹ Therefore, its meaning can only be evaluated from the specification’s context. In summary, the term “system” was originally used primarily in the process context but it has also been used in the machine context.

73. See HERBERT F. SCHWARTZ, PATENT LAW AND PRACTICE 112 n.13 (4th ed. 2003).

In peripheral claiming, which has been dominant since around 1900 the invention is defined by its metes and bounds. Prior to 1900, applicants generally practiced central claiming. In central claiming, a narrow claim that used reference characters to point out an embodiment of the invention was set forth and a phrase (such as “substantially as described”) was added at the end of the claim to refer back to the specification. . . . It was common to have only one or two claims under central claiming, but common to have numerous claims under peripheral claiming.

Id.

74. The following is an explanation of the parts of a modern patent claim:

[M]ost claims have three parts: (1) a preamble, (2) transitional language, and (3) a body. Using a ceiling fan as an example, a claim with these three parts could be . . .

A ceiling fan comprising: (a) a motor having a rod extending outwardly, (b) three blades disposed from the rod, and (c) a cord coupled to the motor for switching the motor on and off.

In this example, “A ceiling fan” is the preamble, “comprising” is the transitional language, and (a) through (c) make up the body.

Id. at 141.

75. U.S. Patent No. 1383 (issued Oct. 26, 1839).

76. *Id.*

77. See *id.*

78. U.S. Patent No. 1832 (issued Oct. 22, 1840).

79. *Id.* Claim 1 is representative:

1. The general manner in which I have arranged and combined the respective parts of the apparatus employed by me, so as to produce a new and useful effect by means substantially new; that is to say, I claim as my invention the manner of arranging the studding booms, lifts, bob-stays, guys, tackles, bull’s-eye and fall, so as to constitute a combined apparatus substantially the same with that herein described, for the purpose of raising the heavy anchors from the deck, clearing them of the vessel, and dropping them where required, in the manner set forth.

Id. col.5-6 ll.11-24.

80. See ‘832 Patent.

81. *Id.*

Some claim-drafting treatises refer to a “system,” but none actually define it in terms of a statutory category.⁸² The earliest treatise to mention “system” was a 1930 treatise entitled *Patent Claim Drafting* by Emerson Stringham.⁸³ This treatise stated that “[t]he word ‘system’ is not in itself objectionable. [The] claims for a process of mining coal was denied in view of the art. But no objection was made to the introductory expression reading ‘In a system of mining coal.’”⁸⁴ Another treatise by Stringham, published in 1939, discusses two “system” claims in which the preambles are directed to a “lubricating system” and a “liquid pumping system.”⁸⁵ Both of these “systems” are clearly “machines,” as the claims go on to recite various physical components of those machines.⁸⁶ Finally, a recent treatise by Robert C. Kahrl mentions a claim describing an “apparatus” or machine as “[a] system for controlling the selection and dispensing of product coupons.”⁸⁷ Again, “system” is used in the claim’s preamble.⁸⁸ In summary, the claim drafting treatises—while not explicitly defining “system”—generally refer to a “system” as an apparatus or machine.

In most cases, the Supreme Court has implicitly stated that a “system” is a machine.⁸⁹ A case from 1854 addressed the patent infringement of several “system” claims.⁹⁰ While the Court did not specifically address whether the “systems” were methods or machines, it appears that “system” claims could take the form akin to a computer system (machine) or a process.⁹¹ A case in 1885 addressed an injunction for a patent on an “Im-

82. See, e.g., ROBERT C. FABER, *LANDIS ON MECHANICS OF PATENT CLAIM DRAFTING* (3d ed. 1990) (no mention of “system”); EUSTACE S. GASCOCK & EMERSON STRINGHAM, *PATENT SOLICITING AND EXAMINING: A GUIDE TO EX PARTE PRACTICE IN THE UNITED STATES PATENT OFFICE* (1934) (no mention of “system”); ROBERT C. KAHRL, *PATENT CLAIM CONSTRUCTION* § 4.03(G) (2005); JOHN L. LANDIS, *MECHANICS OF PATENT CLAIM DRAFTING* (1974) (no mention of “system”); EMERSON STRINGHAM, *PATENT CLAIMS: A DRAFTER’S MANUAL* 316, 372, 425 (1939) [hereinafter *PATENT DRAFTER’S MANUAL*]; EMERSON STRINGHAM, *PATENT CLAIM DRAFTING* § 5170 (1930) [hereinafter *PATENT CLAIM DRAFTING*].

83. *PATENT CLAIM DRAFTING*, *supra* note 82, § 5170.

84. *Id.*

85. *PATENT DRAFTER’S MANUAL*, *supra* note 82, at 372, 425.

86. *Id.* The lubricating system claim is illustrative:

A lubricating system for the bearings of a machine, comprising a pipe leading to a bearing, a source of lubricant under variable pressure, a valve to control the flow of lubricant from said source into said pipe, hand-operated means to open said valve, and means, operated by the pressure of the lubricant, to close said valve.

Id. at 372.

87. KAHRL, *supra* note 82, § 4.03(G). The claim recites: “A system . . . comprising: activation means . . . ; display means . . . ; selection means . . . ; print means . . . ; and control means” *Id.*

88. *Id.*

89. See *Mercoid I*, 320 U.S. 661, 664 (1944); *Elec. R.R. Signal Co. v. Hall Ry. Signal Co.*, 114 U.S. 87, 91 (1885); *O’Reilly v. Morse*, 56 U.S. 62, 104-05 (1854).

90. *O’Reilly*, 56 U.S. at 105-06.

91. See *PATENT DRAFTER’S MANUAL*, *supra* note 82, at 75-137 (analyzing the claims but not explicitly defining the word “system”). Claim 6 of the “1840 Patent Reissued 1848” is more like a computer

provement in Circuits for Electric Railroad Signals.”⁹² While the patent was for a machine—without mention of a “system”—the Court held that “the defendants’ *system* of signaling is shown not to be an infringement of that described in the patent of the appellants.”⁹³ Thus, the Court implied that a “system” was a machine.⁹⁴

The Supreme Court also ruled on “system” claims in *Mercoïd I*, which involved the infringement of a patent directed to a “Domestic Heating System.”⁹⁵ The patent contained five independent claims, three of which recited a “heating system” in the preamble.⁹⁶ The Court referred to the patent as a “combination or system patent . . . compris[ing] three main elements—a motor driven stoker for feeding fuel to the combustion chamber of a furnace, a room thermostat for controlling the feeding of fuel, and a combustion stoker switch to prevent extinguishment of the fire.”⁹⁷ Therefore, the Court implied that the “system” was a machine.⁹⁸

The Federal Circuit has also heard several cases regarding “system” claims.⁹⁹ In *State Street Bank and Trust Co. v. Signature Financial*

system since it includes machinery: “Sixth. I also claim as my invention the system of signs, consisting of dots and spaces, and of dots, spaces, and horizontal lines, substantially as herein set forth and illustrated, in combination with machinery for recording them, as signals for telegraphic purposes.” *Id.* at 86. However, claim 5 does not contain that machinery and thus the nature of the system is less clear: “Fifth. I claim, as my invention, the system of signs, consisting of dots and spaces, and of dots, spaces, and horizontal lines, for numerals, letters, words, or sentences, substantially as herein set forth and illustrated, for telegraphic purposes.” *Id.* Similarly, the system in claim 1 of the 1837 patent is also less clear: “First. A system of signs, by which numbers, and consequently words and sentences, are signified.” *Id.* at 75.

92. *Elec. R.R. Signal Co.*, 114 U.S. at 87.

93. *Id.* at 91, 103 (emphasis added). Claim 1 of the patent at issue is illustrative:

1. The battery B, in combination with the positive and negative conductors C and Z, two or more electro-magnets, M, M<1>, M<2>, for actuating or causing to be actuated visual or audible signals, and two or more circuit-closers, a, a<1>, a<2>, placed at intervals along the line of a railroad, substantially as and for the purposes specified.

U.S. Patent No. 140,356 (issued July 1, 1873). This claim is for a machine made up of the combination of a battery, conductors, electromagnets, and circuit-closers. *Id.* The claim does not include any processes or steps. *See id.*

94. *Elec. R.R. Signal Co.*, 114 U.S. at 103.

95. 320 U.S. 661, 661-62 (1944).

96. U.S. Patent No. 1,758,146 (issued May 13, 1930). Claim 1 recited:

1. A *heating system* comprising a combustion pot, means for feeding fuel, thereto, a VO combustion space above the combustion pot, means controlled by, the temperature of the rooms to be heated for automatically regulating the fuel feeding means, and a separate thermostatic control actuated by predetermined minimum temperatures in said combustion space for preventing extinguishment of the fire when operating under low heat requirement conditions.

Id. (emphasis added).

97. *Mercoïd I*, 320 U.S. at 664.

98. *See id.*

99. *IPXL Holdings, L.L.C. v. Amazon.com*, 430 F.3d 1377 (Fed. Cir. 2005); *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998).

Group,¹⁰⁰ the court reversed the district court's ruling that State Street's patent did not satisfy the statutory subject matter requirement of § 101.¹⁰¹ State Street's patent was directed to a "Data Processing System for Hub and Spoke Financial Services Configuration."¹⁰² The court stated that the claimed "data processing system" (as stated in the claim's preamble) is a "machine . . . made up of, at the very least . . . [the] elements . . . recited in the claim."¹⁰³ In a more recent case, the Federal Circuit upheld the district court's rejection of a claim reciting both a "system" and a method due to indefiniteness.¹⁰⁴ The court framed the issue as "[w]hether a single claim covering both an apparatus and a method of use of that apparatus is invalid."¹⁰⁵ The relevant claim (claim 25) contained the following language: "[t]he system of claim 2 wherein the predicted transaction information comprises both a transaction type and transaction parameters associated with that transaction type, and the user uses the input means to either change the predicted transaction information or accept the displayed transaction type and transaction parameters."¹⁰⁶ The court criticized the claim language by stating that:

[I]t is unclear whether infringement of claim 25 occurs when one creates a system that allows the user to change the predicted transaction information or accept the displayed transaction, or whether

100. 149 F.3d 1368 (Fed. Cir. 1998).

101. *Id.* at 1370; *see* 35 U.S.C. § 101 (2006).

102. *State St. Bank*, 149 F.3d at 1370.

103. *Id.* at 1372; U.S. Patent No. 5,193,056 (filed Mar. 11, 1991). However, the court then stated that "for the purposes of a [35 U.S.C.] § 101 analysis, it is of little relevance whether [the claim] is directed to a 'machine' or a 'process,' as long as it falls within at least one of the four enumerated categories of patentable subject matter, 'machine' and 'process' being such categories." *State St. Bank*, 149 F.3d at 1368. The court stated this because even if the claim fell within § 101, it could still be held unpatentable under the previously-held "business method" exception. *Id.*

104. *IPXL Holdings*, 430 F.3d at 1384; *see* 35 U.S.C. § 112 ¶ 2 (2006) (stating that "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention").

105. *IPXL Holdings, L.L.C. v. Amazon.com*, 430 F.3d 1377, 1384 (Fed. Cir. 2005); *see* U.S. Patent No. 6,149,055 (filed June 26, 1996). Claim 1 was the only independent claim, which recited the following:

1. An electronic financial transaction system for executing financial transactions, the transactions being characterized by a transaction type and a plurality of transaction parameters, the system comprising: a central controller; a communications network; a terminal device selectively connectable to the central controller through the communications network, the terminal device comprising: a processor; a display connected to the processor; an input mechanism for providing input to the processor; the system further comprising means for storing user defined transaction information, the transaction information comprising at least one of user defined transactions and user defined transaction parameters; the processor causing the display to display on a single screen stored transaction information; the input mechanism enabling a user to use the displayed transaction information to execute a financial transaction or to enter selections to specify one or more transaction parameters.

¹⁰⁵ Patent.

106. *Id.*

infringement occurs when the user actually uses the input means to change transaction information or uses the input means to accept a displayed transaction. Because claim 25 recites both a system and the method for using that system, it does not apprise a person of ordinary skill in the art of its scope, and it is invalid under [35 U.S.C. § 112 ¶ 2].¹⁰⁷

In other words, the Federal Circuit rejected claim 25 as indefinite because it was unclear whether the applicant claimed a machine (the “system”) or a method (using the input means).¹⁰⁸ The court was concerned because the patent laws only permit a claim to include a single statutory classification under 35 U.S.C. § 101.¹⁰⁹ Therefore, the “system” in this case was clearly a machine.¹¹⁰

In summary, several early patents included references to “systems.” It appears that “systems” could be either machines or processes depending on the context. While early Supreme Court cases interpreted “systems” inconsistently, the Court generally has treated “systems” as machines. In addition, the Federal Circuit has consistently interpreted “systems” as machines. Therefore, there is a strong historical basis for the courts to treat “systems” as machines.

VI. EFFECT OF “SYSTEM” ON PREAMBLE ANALYSIS

While there is a historical basis for treating “systems” as machines, the courts have not discussed their analysis of preambles that include “systems.” The seminal case in preamble analysis is *Kropa v. Robie*,¹¹¹ which held that the preamble is a limitation to a claim only when the former is “necessary to give life, meaning and vitality to the claims.”¹¹² The court further elaborated in *Applied Materials, Inc. v. Advanced Semiconductor Materials America, Inc.*¹¹³ that “[w]hether a preamble stating the purpose and context of the invention constitutes a limitation of the claimed [invention] is determined on the facts of each case in light of the overall form of the claim, and the invention as described in the specification and illuminated in the prosecution history.”¹¹⁴

107. *IPXL Holdings*, 430 F.3d at 1384.

108. *See id.*

109. *See* 35 U.S.C. § 101 (2006); *IPXL Holdings*, 430 F.3d at 1384.

110. *See id.*

111. 187 F.2d 150, 152 (C.C.P.A. 1951) (binding precedent to the Federal Circuit according to *South Corp. v. United States*, 690 F.2d 1368, 1369 (Fed. Cir. 1982)).

112. *Id.*

113. 98 F.3d 1563 (Fed. Cir. 1996).

114. *Id.* at 1572-73.

Therefore, the preamble generally is not a claim limitation. It follows that the statutory category set forth in the preamble should not be a claim limitation either, unless the statutory category “give[s] life, meaning and vitality to the claim.”¹¹⁵ Thus, the word “system” in the preamble should not be a claim limitation since “system” is not even one of the five statutory categories.¹¹⁶ Moreover, “system” has historically been used in the context of both machines and processes.¹¹⁷

As an alternative, the courts could presume that a “system” is a machine. The patent applicant could then rebut this presumption by making specific statements or definitions in the specification or prosecution history.¹¹⁸ Under this guideline, the “systems” at issue in *NTP II* would still have been interpreted in the same way (i.e., as machines). Each of NTP’s “system” claims listed structural elements and how they operated with each other.¹¹⁹ For example, one “system” claim included one element, which affirmatively claimed a wireless receiver and then inferentially claimed a mobile processor and a wireless device.¹²⁰ Here, the wireless receiver is certainly a device and not a process. Therefore, the claim would still have been interpreted as a machine and not a process.¹²¹

In summary, including the term “system” in a claim’s preamble should not, in general, affect the claim’s scope. Because “system” is a historically

115. *Kropa*, 187 F.2d at 152; see 35 U.S.C. § 101 (2006) (setting forth the five statutory categories). However, the United States Patent and Trademark Office (USPTO) would most likely reject the claim according to 35 U.S.C. § 112 ¶ 2 (indefiniteness) if the claim were ambiguous.

116. See 35 U.S.C. § 101.

117. Compare U.S. Patent No. 256 (issued July 11, 1837) (using “system” in the process context) with U.S. Patent No. 1,758,146 (filed Nov. 11, 1926) (using “system” in the machine context).

118. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc) (holding that an applicant’s claim language is to be interpreted in light of the patent specification and prosecution history).

119. E.g., U.S. Patent No. 6,317,592 (filed Dec. 6, 1999). For instance, one of the claims on appeal in *NTP II* recited:

In a communication system comprising a wireless system which communication system transmits electronic mail inputted to the communication system from an originating device which executes electronic mail programming to originate the electronic mail, mobile processors which execute electronic mail programming to function as a destination of electronic mail, and a destination processor to which the electronic mail is transmitted from the originating device and after reception of the electronic mail by the destination processor, information contained in the electronic mail and an identification of a wireless device in the wireless system are transmitted by the wireless system to the wireless device and from the wireless device to one of the mobile processors, the wireless device and one mobile processor comprising: a wireless receiver connected to the one mobile processor with the one mobile processor receiving the information contained in the electronic mail after the identification of the wireless device is detected by the wireless receiver in a broadcast by the wireless system.

Id. (emphasis added).

120. *Id.*

121. See *NTP II*, 418 F.3d 1282, 1317 (Fed. Cir. 2005) (interpreting NTP’s claims as “system or device” claims).

ambiguous term, the applicant should define in the specification whether “system” is a machine or a method. Without a definition in the specification, the court could presume that a “system” is a machine. Even if the courts had interpreted “system” under the proposed guidelines, however, each of NTP’s “system” claims would still have been interpreted as machine claims. Therefore, a response to the problems raised by *NTP II* should come from the manner that the courts analyze direct infringement and not from how they interpret the term “system.”

VII. DIRECT INFRINGEMENT ANALYSIS

Direct infringement occurs when someone “without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor.”¹²² The court conducts a two-part inquiry to determine if this has occurred.¹²³ First, the court interprets the patentee’s claims as a matter of law.¹²⁴ Second, the court determines as a matter of fact whether the patentee’s claims cover the accused infringer’s product or process.¹²⁵ In order for the court to determine whether infringement has occurred, “all of the claim’s elements must be found, either literally or by a substantial equivalent, in the accused product or process.”¹²⁶ According to direct infringement analysis, the standard for method and device claim infringement is the same.¹²⁷

Direct infringement analysis was first expanded in *Decca Ltd. v. United States*.¹²⁸ To determine whether a system was “used . . . within the United States” under § 271(a), the Court of Claims focused on the place where control of the system was exercised and where “beneficial use of the system” was obtained.¹²⁹ The court would not have found direct infringement under the prior “use” definition because one of the government’s

122. 35 U.S.C. § 271(a) (2006).

123. SCHWARTZ, *supra* note 73, at 158-59.

124. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996); SCHWARTZ, *supra* note 73, at 159.

125. SCHWARTZ, *supra* note 73, at 159.

126. *Id.* (citing *Mas-Hamilton Group v. LaGard, Inc.*, 156 F.3d 1206, 1211 (Fed. Cir. 1998)).

127. *See id.*

128. 544 F.2d 1070, 1074 (Ct. Cl. 1976) (per curiam).

129. *Decca Ltd. v. United States*, 544 F.2d 1070, 1083 (Ct. Cl. 1976); *see* 35 U.S.C. § 271(a) (2006). *See supra* Part IV for a more detailed discussion of *Decca*.

radio beacons was located in Norway.¹³⁰ Therefore, not “all of the claim’s elements [were] found . . . in the accused product.”¹³¹

In analyzing NTP’s system claims, the court in *NTP I* adopted the *Decca* “control and beneficial use” test.¹³² The *NTP II* court did not adopt the *Decca* “control and beneficial use” test, however, when analyzing NTP’s *method* claims.¹³³ The court distinguished “system” and method claims by stating that:

Because a process is nothing more than the sequence of actions of which it is comprised, the use of a process necessarily involves doing or performing each of the steps recited. This is unlike use of a system as a whole, in which the components are used collectively, not individually. We therefore hold that a process cannot be used “within” the United States as required by section 271(a) unless each of the steps is performed within this country.¹³⁴

So why did the court draw a line between “system” and method claims? It appears that *NTP II* would have been a good opportunity to apply the “control and beneficial use” test to method claims. RIM owned the relay server in Canada and thus had “control” over it and any “steps” it performed.¹³⁵ Furthermore, BlackBerry users received the “benefit” of BlackBerry’s email-forwarding process that utilized RIM’s Canadian relay “without any command from the BlackBerry user.”¹³⁶ Therefore, RIM most likely infringed NTP’s method claims under the *Decca* “control and beneficial use” test.

Alternatively, the court could determine which “system” facilitated the infringing process and then apply the “control and beneficial use” test to that system. This would effectively allow the court to extend the *Decca* test to process infringement while maintaining its original application in

130. *Decca*, 544 F.2d at 1074; see *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 528 (1972) (holding that every claimed element must be present in the accused device prior to export in order for U.S. patent law to apply).

131. SCHWARTZ, *supra* note 73, at 159.

132. *NTP I*, 392 F.3d 1336, 1369-70 (Fed. Cir. 2004).

133. *NTP II*, 418 F.3d 1282, 1317-18 (Fed. Cir. 2005).

134. *Id.* at 1318. The court did not cite any authority for this proposition. However, the court stated in the prior paragraph that “[a] method or process consists of one or more operative steps, and, accordingly, “[i]t is well established that a patent for a method or process is not infringed unless all steps or stages of the claimed process are utilized.”” *Id.* (quoting *Roberts Dairy Co. v. United States*, 530 F.2d 1342, 1354 (Ct. Cl. 1976)). Additionally, the court distinguished *Deepsouth* by stating that “[a]lthough the Supreme Court focused on the whole operable assembly of a system claim for infringement in *Deepsouth*, there is no corresponding whole operable assembly of a process claim.” *Id.* at 1317-18. Presumably, the court “added” the quote from *Roberts Dairy* with the *Deepsouth* distinction to find support for its holding.

135. *Id.* at 1290.

136. *Id.*

the system context. A patent owner, however, would be tasked during discovery with determining which system facilitated the allegedly infringing process. This could be expensive and time-consuming, particularly in information technologies, because a system could include servers throughout the world. It would be the patent owner's responsibility to determine upon which server the allegedly infringing process operated. Additionally, certain processes would not be amenable to this analysis. For instance, "secondary use" patents only require a new use for an old material or product; they do not necessarily involve an underlying "system."¹³⁷

The scenario of performing a method step abroad could occur in many communications or information technologies which incorporate a computer to process data. For instance, the facts from the following cases could easily be altered so that the infringer could avoid liability under the *NTP II* holding. In the landmark business method case, *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*,¹³⁸ Signature Financial Group owned a patent for a "Data Processing System for Hub and Spoke Financial Services Configuration."¹³⁹ The technology pooled investment funds into a single portfolio to take advantage of economies of scale.¹⁴⁰ A server analyzed each individual fund to produce a daily account for each portfolio, which investment bankers could access through a personal computer.¹⁴¹ Hypothetically, the server running this financial services program could be located in the United States or abroad. According to the *NTP II* holding, while the system would be running the same program, method infringement could only occur if the server was located within the United States.¹⁴²

Another illustration of *NTP II*'s holding would be to apply it to the landmark software case, *Diamond v. Diehr*.¹⁴³ In *Diehr*, the Supreme Court held that the use of computer software to continuously recalculate rubber cure time based on a temperature reading was patentable subject

137. See 35 U.S.C. § 100(b) (2006) ("The term 'process' means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material."). An example of a secondary use patent is for the use of aspirin to reduce the risk of heart disease. See U.S. Patent No. 6,673,831 (filed Apr. 27 1998).

138. 149 F.3d 1368 (Fed. Cir. 1998). The Federal Circuit held that a computer system configured to calculate and monitor financial information was statutory subject matter under 35 U.S.C. § 101 (1994). *Id.* at 1370-71. This holding invalidated the "judicially-created . . . business method exception to statutory subject matter." *Id.* at 1375 (quotations omitted).

139. *Id.* at 1370.

140. *Id.* at 1371.

141. *Id.*

142. See *NTP II*, 418 F.3d 1282, 1317-18 (Fed. Cir. 2005) (providing a difference between "system" and method claim infringement).

143. 450 U.S. 175 (1981).

matter under 35 U.S.C. § 101.¹⁴⁴ Surely the Court did not anticipate that infringement could be avoided simply by moving a computer across the border to Canada or Mexico. Furthermore, as the *Diehr* ruling was handed down in 1981, the Court could not have anticipated the rapid increase in computing and communications bandwidth that has made it possible to physically remove a computer from a manufacturing site.

In contrast, a situation could arise where an invention includes a component located abroad but the “system” or method fails the “control and beneficial use” test. For instance, if the *Decca* facts were changed so that the Norwegian radio beacon was owned and maintained by the Norwegians instead of the Americans, the United States would not “control” the navigation system but would still obtain its “beneficial use.” Another example would be a patent for a telecommunications system including a satellite. If a third party owned the satellite, then the telecommunications system’s owner would not have “control” of the satellite and could avoid infringing the patent.

The *NTP II* court distinguished infringement standards based on the notion that processes are used “individually” while “systems” are used “collectively.”¹⁴⁵ Therefore, even if a court found that an alleged infringer satisfied the “control and beneficial use” test, the plaintiff would still lose if one of the alleged infringer’s process steps occurred outside the United States. According to the Federal Circuit, “there is no corresponding whole operable assembly of a process claim.”¹⁴⁶ While this might make sense with some “old economy” technologies such as oil refining or mining, it makes little sense with “new economy” technologies such as the Internet where process “steps” can occur within fractions of a second of one another.

In fact, the *NTP II* decision could have severe ramifications to many information-based patents. For instance, Amazon.com relies almost exclusively on method claims to protect the “one-click” checkout feature on its website.¹⁴⁷ It would be fairly easy for a competitor to establish a server

144. *Id.* at 178-79, 192.

145. 418 F.3d at 1318.

146. *Id.* at 1317-18.

147. See U.S. Patent No. 5,960,411 (filed Sept. 12, 1997). Claim 1 is illustrative:

1. A method of placing an order for an item comprising: under control of a client system, displaying information identifying the item; and in response to only a single action being performed, sending a request to order the item along with an identifier of a purchaser of the item to a server system; under control of a single-action ordering component of the server system, receiving the request; retrieving additional information previously stored for the purchaser identified by the identifier in the received request; and generating an order to purchase the requested item for the purchaser identified by the identifier in the received request using the retrieved additional information; and fulfilling the generated order to complete

outside the United States to bypass any method claim infringement. Similarly, Metabolite relies exclusively on method claims to protect its method of detecting a vitamin B deficiency in warm-blooded mammals.¹⁴⁸ Again, it would be trivial for a competitor to perform the step of “correlating an elevated level of total homocysteine in said body fluid with a deficiency of cobalamin or folate” in another country to avoid infringement.¹⁴⁹ In “old economy” technologies, this scenario would be covered by § 271(g), which was adopted by Congress out of a “concern[] with tangible products and not mere information.”¹⁵⁰ This section of the patent code protects an owner of a process patent from a third party that imports, uses, sells, or offers to sell a product made by a patented process.¹⁵¹ Indeed, the *NTP II* court expressly rejected applying § 271(g) to the “email packets” which flowed from Canada to the United States.¹⁵² In summary, companies practicing “new economy” technology are left without a remedy to prevent competitors from partially or fully practicing their method claims abroad.

The problems raised by *NTP II* may be solved in at least two different ways. Preferably, Congress could amend § 271(g) to include “information” technologies.¹⁵³ Alternatively, the Federal Circuit could modify its interpretation of § 271(a) to provide a unified definition of “use” for both “system” and method patents.¹⁵⁴ One way to do this would be to apply the *Decca* “control and beneficial use” test evenhandedly to system and method patents. For instance, the court could adopt the “whole operable process” as an equivalent to the “whole operable assembly” provided by

purchase of the item whereby the item is ordered without using a shopping cart ordering model.

Id.

148. See *Metabolite Labs, Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1358-59 (Fed. Cir. 2004), *cert. granted*, 126 S. Ct. 601 (2005), *cert. dismissed as improvidently granted*, 126 S. Ct. 2921 (2006). Claim 13 is representative: “A method for detecting a deficiency of cobalamin or folate in warm-blooded animals comprising the steps of: assaying a body fluid for an elevated level of total homocysteine; and correlating an elevated level of total homocysteine in said body fluid with a deficiency of cobalamin or folate.” *Id.* (quoting U.S. Patent No. 4,940,658 (filed Nov. 20, 1986)).

149. *Id.* at 1359.

150. 35 U.S.C. § 271(g) (2006); *Bayer AG v. Housey Pharms., Inc.*, 340 F.3d 1367, 1376 (Fed. Cir. 2003).

151. See 35 U.S.C. § 271(g).

152. 418 F.3d 1282, 1323 (Fed. Cir. 2005) (citing *Bayer AG*, 340 F.3d at 1367).

153. A rewording of § 271(g) to include “information” technologies would be the following:

Whoever without authority imports into the United States or offers to sell, sells, or uses within the United States a product *or information* which is made *or modified* by a process patented in the United States shall be liable as an infringer, if the importation, offer to sell, sale, or use of the product *or information* occurs during the term of such process patent.

35 U.S.C. § 271(g) (italicized language was added to cover “information” technologies).

154. One way to do this would be to apply the *Decca* “control and beneficial use” test evenhandedly to system and method patents. This, however, would require the Federal Circuit to overrule *NTP II*. See *NTP II*, 418 F.3d at 1317-18.

Deepsouth.¹⁵⁵ This, however, would require the Federal Circuit to overrule *NTP II*.¹⁵⁶

The paradox established by *NTP II* is that a competitor's "system" can infringe a "system" claim, but the competitor's method that uses that infringing "system" might not infringe a method claim, depending on the location of the "system's" components. This lack of unity between "system" and method infringement analysis will weaken the U.S. patent system unless Congress or the courts take the necessary action to correct it.

VIII. CONCLUSION

The Federal Circuit's decision in *NTP II* created an artificial and unnecessary distinction between method and "system" infringement law. This distinction could limit patent protection of method claims that could easily be performed in a foreign country. Furthermore, the court did not consider the historical roots of "system" claims with respect to the statutory categories defined in § 101. Based on the common law historical usage, a "system" could be presumed to be a machine claim. The court should perform a fact-specific analysis, however, for each patent based on the applicant's statements in the specification and prosecution history.

The court placed too much emphasis on the "individual" nature of process steps in contrast to the "joint" nature of machine elements. As such, the court held that a "system" with an extraterritorial component could infringe a U.S. patent if the "system" satisfied the "control and beneficial use" test even though a process that runs on that same "system" could not. If the court is willing to broaden its interpretation of "use" in § 271(a) to include "control and beneficial use," the court should do so evenhandedly. Thus, the court should adopt a "whole operable process" definition for method claims as the analog to the "whole operable assembly" definition for machine claims. This is particularly relevant in the "new economy" era where information technology, having steps easily exportable overseas, is critical to our economy.

155. See 406 U.S. 518, 528 (1972).

156. See 418 F.3d at 1317-18.