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WANG LABORATORIES, INC. v. AMERICA ONLINE, INC. AND NETSCAPE COMMUNICATIONS CORP.

Daniel R. Harris[†] and Janice N. Chan^{††}

I. BACKGROUND

The explosion of business method and software patents, particularly those addressing Internet technologies, has generated significant analysis focused on how the Patent and Trademark Office (“PTO”) evaluates such applications. Many have criticized the PTO for issuing patents on such fundamental concepts as using credit cards securely on-line;¹ using electronic “shopping carts” on-line;² allowing on-line purchase through one click of a mouse;³ and using on-line affiliate programs to promote a web site.⁴ In response, the PTO recently announced a plan for increasing the scrutiny of business method patent applications before they are granted.⁵ The question remains, however: What about the thousands of patents that have already issued?

While the press has given a great deal of attention to how these patents are approved by the PTO, it has virtually ignored how courts have interpreted the patents after they issue. Judicial interpretation of patent claims, commonly referred to as claim construction, appears to be the next battleground in the fight over Internet patents. The Federal Circuit’s recent analysis in *Wang Laboratories, Inc. v. America Online, Inc. and Netscape Communications Corp.*⁶ provides some indication that courts will look to interpret Internet patent

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1. U.S. Pat. No. 5,724,424 to Gifford.

2. U.S. Pat. No. 5,715,314 to Payne et al.

3. U.S. Pat. No. 5,960,411 to Hartman et al.

4. U.S. Pat. No. 6,029,141 to Bezos et al.

5. See *Business Methods Patent Initiative: An Action Plan* (visited Apr. 17, 2000) <<http://www.uspto.gov/web/offices/com/sol/actionplan.html>>.

6. 197 F.3d 1377 (Fed. Cir. 1999).

claims narrowly in an effort to control the impact on future innovation.

The Federal Circuit rejected Wang Laboratories, Inc.'s ("Wang") appeal of a holding by the United States District Court for the Eastern District of Virginia granting summary judgment of noninfringement for defendants America Online, Inc. ("AOL") and Netscape Communications Corp. ("Netscape").⁷ Wang's underlying suit alleged infringement of its U.S. Patent No. 4,751,669 ("669 patent")⁸ covering, among other things, AOL's and Netscape's respective Internet browser "bookmark" functions. The '669 patent, entitled "Videotex Frame Processing," teaches an on-line information system that provides users with both textual and graphical information from computer-controlled databases through interactive two-way communication over a telephone network. Interpreted broadly, the Wang Videotex patent could apply to a myriad of modern Internet web sites and browsers.

At trial, Wang asserted numerous claims against AOL and Netscape. On appeal, Wang emphasizes infringement of claims 20 and 38. Wang asserts that Claim 20 is infringed by AOL's "favorite places" and Netscape's "bookmark" features. Claim 20 is essentially a keyword feature that allows the user to assign a name to a certain page or frame and thus allows for easy retrieval:

20. Apparatus for retrieving selected frames of information from a central videotex supplier of the information frames, each information frame having an associated unique identifier assigned by the supplier for retrieving the frame, the apparatus comprising a display device connected to display the information frames, storage means connected to store the identifier and a unique keyword selected by an operator and associated with the identifier, menu means connected to display on the display device a menu frame containing the keyword, data entry means connected to enter into the apparatus a request for retrieval of a selected information frame by moving a cursor to the keyword associated with the selected information frame, and a processor connected to be responsive to the data entry means for retrieving the information frame in response to the entry of the request by transmitting the associated identifier to the supplier.⁹

Wang's other major allegation addresses its patent Claim 38

7. *See id.*

8. U.S. Pat. No. 4,751,669 to Sturgis et al.

9. *Wang*, 197 F.3d at 1379.

which describes the feature of tagging a stored page or frame in order to identify and activate the decoding protocol when information is retrieved. Claim 38's structural components are presented in means-plus-function form:

38. Apparatus for locally processing frames of information received from central videotex suppliers, different frames being encoded in accordance with different protocols, comprising means connected to locally store the information frames, means connected to locally display the frames, means connected to decode the locally stored frames as they are displayed, and means connected to tag each stored frame with a header indicating one of said different protocols as having been used for encoding the frame, the means connected to decode being arranged to decode each frame in accordance with the protocol indicated by the header on the frame.¹⁰

Several protocols for processing and displaying computer-generated data were already in existence at the time the '669 patent was granted. The two general types of these protocols are character-based protocols and bit-mapped protocols. It is not disputed that both AOL and Netscape used bit-mapped protocols.¹¹

In granting summary judgment of noninfringement in favor of defendants Netscape and AOL, the district court ruled that all of the claims asserted by Wang were limited to character-based protocols. This holding followed from the court's definition of the term "frame" as used in the Wang patent as a "page of information assembled prior to display which is encoded in a character-based protocol . . . to then be displayed on the screen representing a fixed full screen arrangement, such as rows and columns, of alphanumeric and graphic characters."¹²

Thus, by limiting the term "frame" to those pages of information encoded in a character-based protocol, the district court found no infringement because the AOL and Netscape products used a bit-mapped protocol.¹³

II. HOLDING, RATIONALE AND DISCUSSION

On appeal, the Federal Circuit agreed with the district court and

10. *Id.*

11. *See id.*

12. *Id.*

13. *See id.* at 1380 (citing the lower court's decision in *Wang Labs v. America Online, Inc.*, No. Civ. A. 97-1628-A, 1998 WL 1157608 (E.D. Va. May 1, 1998)).

held that the term "frame" as used in the patent was limited to pages encoded in character-based protocols.¹⁴ The Court of Appeals further concluded that the bit-mapped protocols were not equivalent to character-based protocols for the purpose of the patent's means-plus-function claims, and that the patent was not infringed under the doctrine of equivalents.¹⁵

A. Claim Construction

Wang argued for a broader construction of the claims by focusing on two points: (1) the term "frame," as used in the '669 patent should encompass both character-based and bit-mapped protocols;¹⁶ and (2) even if the patent's specification is deemed to be limited to character-based protocols, that the interchangeability of character-based and bit-mapped information protocols was known at the time the '669 invention was made.¹⁷

In support of its first point, Wang argued that the term "frame" as used in the patent referred broadly to a "unit of digital data that could be selected and displayed,"¹⁸ and thus should not be limited to the use of a character-based protocol. Thus, Wang argued that the display of "alphanumeric and graphic characters"¹⁹ included both character-based and bit-mapped displays. AOL and Netscape refuted Wang's argument by reasoning that the usage of the term "frame" in conjunction with the term "characters" limited the invention to a character-based protocol.²⁰ In support of this argument, AOL and Netscape pointed out that the '669 specification used the term "frame" only with respect to a character-based protocol.²¹

The Federal Circuit, in concluding that the term "frame" as used in the '669 claims did not encompass a more general usage of both bit-mapped and character-based protocols, reasoned that "the only system that is described and enabled in the '669 specification and drawings uses a character-based protocol."²² The court concluded that, while the specification does mention non-character-based protocols, these references to bit-mapped protocols were mere

14. See *id.* at 1382.

15. See *Wang*, 197 F.3d at 1377.

16. See *id.* at 1381.

17. See *id.* at 1383.

18. *Id.* at 1381.

19. *Id.*

20. See *id.*

21. See *Wang*, 197 F.3d at 1381.

22. *Id.* at 1382.

acknowledgments of the state of the art and not a broadening of the invention of the patent.²³

To support its second point, Wang argued that even if the specification is deemed to encompass only character-based protocols, the claims themselves should not be so limited because the interchangeability of character-based and bit-mapped protocols was known at the time the '669 invention was created.²⁴ Wang argued that the user interface features of the claims is the core invention of the '669 patent, not the choice of protocol.²⁵ AOL and Netscape pointed to the patent specification and suggested that it was directed, and thus limited, to interactions based on character-based information frames and that this limitation was the basis for the subsidiary features of keywords.²⁶

On this second issue, the Federal Circuit once again affirmed the district court and found in favor of AOL and Netscape.²⁷ The Court ruled that the "claims were not directed solely to the user interface, but to the electronic system that is described as implementing this interface."²⁸

B. Preferred Embodiment

Wang next argued that the character-based protocol was merely a "preferred embodiment," and as such, the embodiment as described in the specification does not set the boundaries of the claims. Wang argued that "limitations from the specification are not to be read into the claims."²⁹

AOL and Netscape countered that when the subject matter claimed is the only one contained in the specification, then the invention is so limited and not simply a "preferred" example of a broader undefined invention.³⁰ AOL and Netscape cited *Modine Mfg. Co. v. United States Int'l Trade Comm'n*,³¹ in which the court ruled "when the 'preferred embodiment' is described as the invention itself,

23. *See id.*

24. *See id.*

25. *See id.*

26. *See id.*

27. *See Wang*, 197 F.3d at 1383.

28. *Id.*

29. *Id.* (citing *Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998)).

30. *See id.*

31. 75 F.3d 1545 (Fed. Cir. 1996).

the claims are not entitled to a broader scope than that embodiment."³²

The Federal Circuit agreed with AOL and Netscape, ruling that the "preferred" usage itself does not broaden the claims beyond their specifications.³³ The court held that, because the '669 specification only describes the character-based protocol embodiment, the district court was correct in thus limiting the interpretation of Wang's claim.³⁴

C. Means-Plus-Function Claims

Wang further argued that under 35 U.S.C. § 112, ¶ 6 the "means" are not limited to the character-based protocol as described in the specification and that a known bit-mapped protocol is an equivalent means, interchangeable with the character-based protocol.³⁵ Thus, Wang argued that if the claimed function is adequately described in the specification, then an equivalent structure under 35 U.S.C. § 112, ¶ 6 need not be described in the specification.³⁶ Under this argument, the known bit-mapped protocol would not need to be included in the specification in order to be equivalent under 35 U.S.C. § 112, ¶ 6.³⁷

AOL and Netscape argued that even though the character-based and bit-mapped modules performed similar functions, their capabilities and methods of operation were so different that they were not "equivalent" under 35 U.S.C. § 112, ¶ 6.³⁸ AOL and Netscape pointed out that the capabilities were so different that Wang's scientists were unable to implement bit-mapped technology in their system: "Wang's inability to implement bit-mapped technology should not be rewarded with a judgment of equivalency after others later succeeded."³⁹

Once again, the Federal Circuit agreed with the defendants, holding that the evidence supported the district court's ruling of non-equivalency under 35 U.S.C. § 112, ¶ 6.⁴⁰ Further, the court noted expert testimony demonstrating that, though the protocols are interchangeable today, they function on very different principles and

32. *Id.* at 1551.

33. *See Wang*, 197 F.3d at 1383 (citing *General American Transp. Corp. v. Cryo-Trans, Inc.*, 93 F.3d 766 (Fed. Cir. 1996)).

34. *See id.*

35. *See id.* at 1385.

36. *See id.*

37. *See id.*

38. *See id.*

39. *Wang*, 197 F.3d at 1385.

40. *See id.*

have different capabilities.⁴¹ In addition, the '669 inventors testified that Wang had stopped development of the bit-mapped protocol in their system, in part, because they were having technical difficulties.⁴² Thus, the court held that the bit-mapped protocol was not equivalent under 35 U.S.C. § 112 ¶ 6.⁴³

D. Claim Differentiation and the Doctrine of Equivalents

The court also ruled against Wang on its argument under claim differentiation.⁴⁴ The court ruled that the claim differentiation argument in and of itself does not support interpreting the term "frame" as applicable to any protocol.⁴⁵

Wang argued that the doctrine of equivalents, under which a known equivalent need not be described in the specification, applies to both character-based and bit-mapped protocols because they are interchangeable.⁴⁶ However, the court ruled that no reasonable trier of fact could find substantially the same function between the '669 patent and the accused systems because of the great differences in operation, structure, and capabilities.⁴⁷

III. LIMITATIONS ON BUSINESS METHOD PATENTS

Although Wang sought broad coverage from its patent, the district court and Federal Circuit both interpreted Wang's claims narrowly so as to find noninfringement. As courts address more and more actions in which Internet patent claims are asserted broadly, judicial claim construction will emerge as a means of restricting their impact. Although patent holders may assert broad claims against the industry, individual defendants should scour the patent specification for language restricting its application.

The Legislature appears to be heading in the same direction as well. For example, Congress has also taken part in this trend of narrowing the scope of business method patents by passing the First

41. *See id.*

42. *See id.*

43. *See id.*

44. *See id.* at 1384.

45. *See Wang*, 197 F.3d at 1384.

46. *See id.* at 1386. "[K]nown interchangeability" is a useful objective standard of equivalency. *See Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997).

47. *See Wang*, 197 F.3d at 1386.

Inventor Defense Act of 1999,⁴⁸ which introduced a defense to an action for infringement with respect to method claims. Section (a)(3) of this statute narrowly defined the term “method” as “a method of doing or conducting business,” which effectively limits this defense to business method patents.⁴⁹ This legislation was apparently motivated by the Federal Circuit’s recent decision in *State Street Bank & Trust v. Signature Financial Group*, which held that methods for doing business are patentable.⁵⁰ The legislators believed that “[t]he *State Street* court came down on the side of a very broad scope of subject matter that qualifie[d] for patent protection.”⁵¹ To wit, “*State Street* clarifie[d] that the characterization of subject matter as a method of doing business [did] not render it unpatentable.”⁵²

In response to the *State Street* decision, Congress set forth this defense in order to protect holders of trade secrets in light of the “increase in the ability to patent all business methods and processes.”⁵³ Congress noted that “[t]housands of ‘back-office’ processes are now being patented.”⁵⁴ Previously, the businesses that developed these processes thought that secrecy was the only protection available.⁵⁵ “Under established law, these pre-existing processes do not now qualify for patent protection because they have been in commercial use.”⁵⁶ Therefore, Congress introduced this legislation in order to “clarif[y] the interface between two key branches of intellectual property law—patents and trade secrets.”⁵⁷

Even those companies actively seeking their own Internet-focused business method patents have expressed concern about their impact on the industry. In an open letter, for example, Amazon.com

48. 35 U.S.C.A. §273 (West Supp. 2000). Specifically, § 273 provides that:

It shall be a defense to an action for infringement under section 271 of this title with respect to any subject matter that would otherwise infringe one or more claims for a method in the patent being asserted against the person, if such person had, acting in good faith, actually reduced the subject matter to practice at least 1 year before the effective filing date of such patent, and commercially used the subject matter before the effective filing date of such patent.

Id.

49. *Id.*

50. See H.R. No. 106-287(I), 106th Cong., 1st Sess. (1999) (citing *State Street Bank & Trust v. Signature Fin. Group*, 149 F.3d 1368 (Fed. Cir. 1998)).

51. *Id.*

52. *Id.*

53. *Id.*

54. *Id.*

55. See *id.*

56. H.R.No. 106-287 (I).

57. *Id.*

CEO Jeff Bezos recently suggested that business method and software patents should have a shorter lifespan of three to five years rather than the current seventeen years.⁵⁸ In addition, Bezos proposed a short comment period during which the public could provide prior art references to patent examiners prior to issuance of the proposed patent.⁵⁹

IV. CONCLUSION

The analysis affirmed by the Federal Circuit in *Wang* may embolden other district courts to interpret claims narrowly. Employing narrow claim construction, as the Federal Circuit did in *Wang*, courts can end litigation with a finding of noninfringement at the summary judgment stage. While the Legislature and the PTO work to modify the patent system to reduce the number of weak business method patents being issued, narrow claim construction may prove to be a powerful argument for defendants to argue against the application of broadly asserted patents in court.

58. See Open letter from Jeff Bezos, CEO, Amazon.com (on file with the *Santa Clara Computer and High Technology Law Journal*).

59. See *id.*

