

“A ROSE BY ANY OTHER NAME”: JUDICIAL USE OF METAPHORS FOR NEW TECHNOLOGIES

Stephanie A. Gore*

It is now fairly established in cognitive science and linguistics that metaphors are an essential tool used to organize thought. It is human nature to reach for metaphors when trying to comprehend new concepts. Metaphors, however, may also selectively guide, or misguide, our cognitive processes. By emphasizing one aspect of a concept, a metaphor may blind us to other aspects that are inconsistent with the metaphor.

The power of metaphor raises particular concerns in legal disputes wherein the resolution depends on comprehending new or developing technology. First, concerns have been raised regarding the judiciary's ability to understand complex technology. Second, fear is a powerful barrier to learning, and fear of technology is a common phenomenon. Third, metaphors can be seductive, and may lead a person to end efforts to understand a new (perhaps daunting) concept too quickly. Finally, metaphors play a particularly powerful role in the law, since a court may inherit as precedent metaphors chosen by another court.

All of this leads to the potential for the creation of precedents in which courts substitute poorly fitting metaphors for true comprehension of the technology at issue.

This Article examines the use of metaphors by courts to comprehend new and developing technologies. It further examines the danger in the selection of definitional metaphors for new and changing technology, and how courts can avoid such dangers through recognition of both the limits of metaphors and the need to keep the metaphorical door open to information—and even

* Assistant Professor of Law, Florida State University College of Law; J.D., University of Chicago Law School, 1994; M.S., Computer and Information Sciences, Georgia Institute of Technology, 1989; B.S., Computer Science, Stanford University, 1988. I am indebted to friends and colleagues with whom I have discussed this article. I am especially thankful for the comments and feedback I received from colleagues during my presentation of early drafts of this article in faculty colloquia at Florida State University College of Law and The University of Texas Austin School of Law.

additional metaphors – that may help further their understanding of new technologies.

I. INTRODUCTION

... [A] good metaphor is something even the police should keep an eye on.¹

G.C. Lichtenberg

Why do I want it? What's in it for me?

*It's the imagery of technology. . .*²

The Beastie Boys

Recognition of the power of metaphors is nothing new. Cognitive science has demonstrated that metaphors are not simply “rhetorical flourishes and ornaments used to embellish discourse.”³ Language determines how we see reality, and metaphors in particular affect our perceptions and understanding of phenomena around us.⁴ In their groundbreaking work in cognitive semantics, *Metaphors We Live By*, Lakoff and Johnson assert that not only are metaphors pervasive in language, but they cannot be separated from language or from the cognitive processes that create language.⁵

Metaphor⁶ both reflects and affects our thought processes regarding the phenomena we endeavor to describe. Murray Edelman wrote in *Politics as Symbolic Action*: “Thought is metaphorical and metaphor pervades language, for the unknown, the new, the unclear, and the remote are apprehended by one’s perceptions of identities with the

1. G.C. LICHTENBERG, APHORISMS ¶ 91, at 79 (R.J. Hollingdale trans., Penguin Classics 1990). Lichtenberg was a German physicist and philosopher (1742–99).

2. THE BEASTIE BOYS, *Just a Test, on HELLO NASTY* (Capitol Records 1998).

3. HAIG BOSMAJIAN, METAPHOR AND REASON IN JUDICIAL OPINIONS 37 (1992).

4. See *infra* Part II.

5. GEORGE LAKOFF & MARK JOHNSON, *METAPHORS WE LIVE BY* 3 (1st ed. 1980).

6. A “metaphor” is defined as a “figure of speech in which a word or phrase that ordinarily designates one thing is used to designate another, thus making an implicit comparison.” THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (4th ed. 2000). A metaphor may also be defined as “an implied analogy imaginatively identifying one object with another and ascribing to the first object one or more of the qualities of the second.” C. HUGH HOLMAN & WILLIAM HARMON, *A HANDBOOK TO LITERATURE* 298 (5th ed. 1986). The Princeton Encyclopedia of Poetry and Poetics elegantly defines metaphor as “[a] condensed verbal relation in which an idea, image, or symbol may, by the presence of one or more other ideas, images, or symbols, be enhanced in vividness, complexity, or breadth of implication.” PRINCETON ENCYCLOPEDIA OF POETRY AND POETICS 490 (Ales Preminger ed., enlarged ed., 1974). An “analogy” is a “figure of speech in which a word or phrase that ordinarily designates one thing is used to designate another, thus making an implicit comparison. . . . [or o]ne thing conceived as representing another; a symbol. . . .” THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (4th ed. 2000). The discussion in this Article encompasses both metaphorical and analogical reasoning. However, one authority opines that there is a large difference between analogy and metaphor while acknowledging the close relationship between the two concepts. Cass R. Sunstein, *On Analogical Reasoning*, 106 HARV. L. REV. 741, 748 n.26 (1993).

familiar. Metaphor, therefore, defines the pattern of perception to which people respond.”⁷

Nowhere is this more evident than in the American legal system, marked as it is by analogical reasoning and the role of precedent in judicial decisionmaking.⁸ Haig Bosmajian’s study of the use of tropes in judicial opinions⁹ revealed that what is most often quoted from a court opinion to support a subsequent decision are the “tropological passages.”¹⁰ These passages tend to persist over time as the language passes from decision to decision, often becoming a part of the judicial vocabulary.¹¹ As Bosmajian observed, some metaphors in judicial opinions “appear once or twice and are never heard from again. Others, however, become institutionalized and integral to judicial reasoning and decision making.”¹²

Considering its long pedigree, the use of metaphors in judicial discourse has only recently received attention by legal commentators.¹³

7. BOSMAJIAN, *supra* note 3, at 17, (quoting MURRAY EDELMAN, *POLITICS AS SYMBOLIC ACTION* 17 (Academic Press 1971)).

8. See Jonathan H. Blavin & I. Glenn Cohen, *Gore, Gibson, and Goldsmith: The Evolution of Internet Metaphors in Law and Commentary*, 16 HARV. J. L. & TECH. 265, 266–68 (2002). See generally Dan Hunter, *Reason Is Too Large: Analogy and Precedent in Law*, 50 EMORY L.J. 1197 (2001); Scott Brewer, *Exemplary Reasoning: Semantics, Pragmatics, and the Rational Force of Legal Argument by Analogy*, 109 HARV. L. REV. 923 (1996); Michael J. Gerhardt, *The Role of Precedent in Constitutional Decisionmaking and Theory*, 60 GEO. WASH. L. REV. 68, 73 (1991) (examining the manner in which “precedents provide a stabilizing influence on constitutional decisionmaking” by the U.S. Supreme Court).

9. Bosmajian limits his examination of the use of tropes in judicial opinions dealing with First Amendment issues. BOSMAJIAN, *supra* note 3, at xii.

10. *Id.* at 13.

11. A few representative examples of metaphors that have achieved the status of judicial principles or doctrines are as follows: the powerful metaphor of the “fruit of the poisonous tree” doctrine, *Silverthorne Lumber Co. v. United States*, 251 U.S. 385 (1920), the metaphoric “wall of separation” between church and state, *Goodson v. Northside Bible Church*, 261 F. Supp. 99, 103 (S.D. Al. 1966), the “shedding” of constitutional rights at the “schoolhouse gate,” *Tinker v. Des Moines Indep. Cmty. Sch. Dist.*, 393 U.S. 503, 506 (1969), and the “most familiar metaphor in First Amendment lexicon,” the “marketplace of ideas,” Vincent Blasi, *Misleading Metaphor: Holmes and the Marketplace of Ideas*, Address Before the Kadish Center for Morality, Law, & Public Affairs, General Aspects of Law Lectures (Sept. 5, 2002), available at <http://www.law.berkeley.edu/cenpro/kadish/Blasi%20Holmes.pdf> (discussing the detrimental effects of this metaphor on the protection of free speech). Bosmajian notes, however, that the metaphors chosen for judicial opinions are not always universally accepted as adequate or accurate for the context. “Where one judge argues that the metaphoric ‘wall of separation between Church and State’ is a ‘constitutional principle,’ another argues at length that is a ‘misleading metaphor.’” BOSMAJIAN, *supra* note 3, at 5 (citing *Int’l. Soc. for Krishna Consciousness v. Lee*, 721 F.Supp. 572 (S.D. N.Y. 1989)). Additionally the “chilling-effect” doctrine has been criticized by Justice Harlan as “slippery” and “amorphous.” BOSMANJIAN, *supra* note 3, at 200.

12. BOSMANJIAN, *supra* note 3, at 3.

13. See, e.g., Hunter, *supra* note 8 (applying cognitive science models of thinking to legal analogical reasoning); Maureen Archer & Ronnie Cohen, *Sidelined on the (Judicial) Bench: Sports Metaphors in Judicial Opinions*, 35 AM. BUS. L.J. 225 (1998) (examining the use of sports metaphors in judicial opinions); Elizabeth G. Thornburg, *Metaphors Matter: How Images of Battle, Sports, and Sex Shape the Adversary System*, 10 WISC. WOMEN’S L.J. 225 (1995) (analyzing metaphors in the legal culture); Chad M. Oldfather, *The Hidden Ball: A Substantive Critique of Baseball Metaphors in Judicial Opinions*, 27 CONN. L. REV. 17 (1994) (examining baseball metaphors in judicial writing across various areas of law); Steven Winter, *Transcendental Nonsense: Metaphoric Reasonings and the*

While that examination continues to some extent today, the subject remains largely overlooked. In 1988, Judge Richard Posner pointed out in *Law and Literature* that “[t]he subject of judicial rhetoric is both rich and comparatively unexplored.”¹⁴ When Bosmajian published *Metaphor and Reason in Judicial Opinions* in 1992, he commented that while legal scholars clearly recognize the importance of metaphors in judicial opinions, there is a dearth of examination or analysis of those metaphors.¹⁵ He concluded that “[t]here has been some examination of the judicial use of sports metaphors and metaphors used in corporate law, but not much else.”¹⁶ Notwithstanding this lack of scrutiny, the role of metaphor in judicial reasoning is worthy of examination for many reasons, particularly in the context of cases that require the court to master abstruse subject matter. While there are many litigated issues that meet this description, cases involving “high-tech” subjects, such as computer technology, can be especially challenging to courts.

A wide range of constituencies both inside and outside the legal community—from attorneys bringing high-tech cases before the bench, to those charged with overseeing the administration of civil justice, to reporters on the legal beat—have raised concerns regarding judges’ ability to comprehend sufficiently the technology involved in high-tech litigation. After the district court ruled against Microsoft Corporation in the government’s antitrust action in 2000, attorneys for Microsoft suggested in the company’s appeal that it lost the trial because the facts presented and issues involved were too “technical and esoteric” for presiding Judge Thomas Penfield Jackson to comprehend.¹⁷ Judge Jackson himself seemed to acknowledge that he was not equipped to consider the high-tech and new business issues in the case.¹⁸

In response to the *Microsoft* case and others in which judges have been required to handle high-tech litigation, a legislative task force in

Cognitive Stakes for Law, 137 U. PENN. L. REV. 1105 (1989) (marketplace of ideas); Thomas Ross, *Metaphor and Paradox*, 23 GA. L. REV. 1053 (1989); RICHARD POSNER, *LAW AND LITERATURE* 2-4 (1988); David Cole, *Agon at Agora: Creative Misreadings in the First Amendment Tradition*, 95 YALE L.J. 857 (1986) (examining the “marketplace of ideas” metaphor). More recently, Blavin and Cohen reexamined the evolution of Internet metaphors in legal reasoning and discourse. Blavin & Cohen, *supra* note 8.

14. POSNER, *supra* note 13, at 296. Sunstein similarly noted that analogical reasoning “receives little attention in the most influential works in Anglo-American jurisprudence and legal theory.” Sunstein, *supra* note 6, at 741.

15. BOSMAJIAN, *supra* note 3, at 7.

16. *Id.*

17. Michael Brick, *Technology: When the Judge Can’t Really Judge*, N.Y. TIMES, Sept. 11, 2000, at C4. Some critics assert that Microsoft argued the complexity issue to support its plea to have a federal appellate court hear its appeal before the case was sent to the Supreme Court. *Id.*; see Microsoft Corporation’s Appeal Brief to the U.S. Court of Appeals for the District of Columbia, *United States v. Microsoft*, 165 F.3d 952 (D.C. Cir. 1999) (No. 98-5399) (on file with the University of Illinois Journal of Law, Technology & Policy).

18. See Brick, *supra* note 17, at C4 (reporting that, in an earlier interview with the *New York Times*, Judge Jackson said he had backed a proposal by the Justice Department and state attorney generals to break up Microsoft because “there’s no way [he] can equip [himself] to do a better job than they have done”).

Maryland studied whether a special court should be created to hear such cases.¹⁹ These special state courts would include judges specifically determined as qualified to consider cases involving high-tech and new business issues. In its report, issued December 1, 2000,²⁰ the Maryland Task Force concluded that in light of “the significant advances brought about by not only the Internet, but also the bioscience, aerospace, and information technology industries, to name only a few,”²¹ a “business and technology dispute management program”²² should be established with specially trained judges and mediators to resolve disputes affecting business entities, including those involving technology. One reason cited by the Maryland Task Force for this conclusion was its recognition of the need to identify decision makers who are willing and able to grasp the technology involved in high-tech cases.²³

Unless and until such specialized courts come into being,²⁴ courts generally must continue to deal with legal issues raised by emerging technologies. The question, then, is how judges fare in the process.

19. Specialized courts have been established to address business cases, such as the commercial division of the Supreme Court of New York County, established in 1995, which hears complex commercial and business disputes involving amounts in dispute of \$125,000 or more, and the Delaware Court of Chancery, which for over 200 years has specialized in business and incorporation matters. None of these courts, however, specifically focuses on technology. The one specialized federal court, the United States Court of Appeals for the Federal Circuit, was created in 1982 to hear, among other cases, appeals in patent cases. CHARLES ALAN WRIGHT & ARTHUR R. MILLER, 13 FEDERAL PRACTICE AND PROCEDURE: JURISDICTION AND RELATED MATERIALS § 3508 (2d ed. 2003).

The chair of the Maryland Business and Technology Court Task Force mentioned as a sample case for the proposed court one involving “a company’s claim that it was sold a faulty software system, with the seller defending itself by saying the system was being used improperly. ‘All of that,’ he says, ‘does require by the fact-finder some kind of understanding of what they’re talking about.’” Brick, *supra* note 17, at C4.

20. THE BUSINESS AND TECHNOLOGY TASK FORCE, DRAFT REPORT OF THE MARYLAND BUSINESS AND TECHNOLOGY COURT TASK FORCE REPORT (2000), available at <http://www.msba.org/taskforcereport.pdf> [hereinafter DRAFT REPORT]. Arguments that have been raised against the creation of technology courts include skepticism that such courts are necessary and the concern that the courts would siphon off the best judges from the general courts. See, e.g., Tyler Prochnow, *Special Courts for Tech Cases Gain Support*, 17 No. 11 E-COMMERCE L. & STRATEGY 6 (2001).

21. DRAFT REPORT, *supra* note 20, at 2–3. The report observes that: [j]udges will be confronted with new and unique issues never before seen as a result of emerging technology and new business models. Judicial decisions will have to look forward to the potential impact of technology, as well as back to established legal precedent. The Judiciary can nevertheless take a leadership role in the development of new rules and enhancements in its functions to adapt to these new challenges. . . . [T]he . . . pressure to change offers the Judiciary an opportunity to forge its own adaptive institutions.

Id. at 3.

22. *Id.* at 8–9. Under the proposal, three judges would be appointed to a statewide Business and Technology Dispute Management Program. *Id.* at 8.

23. *Id.* at 7–8.

The Task Force believes that the inefficiencies and the reduction in the timeliness and quality of judicial decision-making that will inevitably result from advocates with specialized knowledge presenting cases to generalist trial judges with neither the knowledge nor the time to devote to these cases will grow to a level which is intolerable.

Id.

24. The Maryland task force reported that no other state has created technology courts to specialize in the administration of disputes involving complex technology issues. *Id.* at 6.

Arcane technological developments, such as those underlying computer hardware and software, semiconductors, and cable systems, have presented lawyers, judges, and juries with the challenge of understanding new technology well enough to determine whether, or to what extent, established legal principles apply to the new technology.²⁵ As suggested by Blavin and Cohen, one means employed by courts to assist them in applying established legal principles to novel domains, such as emerging technologies, is the use of metaphors.²⁶ Metaphors play a key role in the process of mapping the old to the new. One writer recently noted, “[a]nalogy is the only real road map for courts when technological change leaves them in unknown legal territory,” where the technology does not fit neatly into existing categories.²⁷ Metaphors, however, can be as perilous as they are useful. Because metaphors employed to conceptualize new technologies can affect our perceptions of “knowledge, truth, justice, and reality,”²⁸ they must be subjected to careful scrutiny.

The use of metaphor in high-tech litigation, as distinguished from other types of litigation, may be particularly deserving of scrutiny in light of another common human phenomenon: fear of technology. Studies purport to show that a significant portion of the U.S. population is “technophobic,” possessing negative opinions and/or anxious feelings towards information technology, such as computers.²⁹ One writer observes, for example, that “[c]omputers are the subject of plenty of myths. They are new and therefore scary. Scary things need explanations; when we have an explanation, a label, we can put the scariness into a box and feel in control of it.”³⁰ The technophobia phenomenon thus further suggests that the metaphors used in high-tech litigation are particularly deserving of scrutiny.

This Article does not propose that judges are, as a class, Luddites, but fear of technology or technological change is rather common and can impact reasoning. The fear of technology may make the judiciary especially susceptible to attractive metaphors offered by the parties in high-tech cases as a substitute for gaining a deeper understanding of the underlying technology. Attorneys advocating a particular theory realize that the spoils of litigation often go to the proponent of the most

25. See Mitchell Zimmerman, *Educating the Judge and Jury: The Technology Tutorial*, 7 No. 5 COMPUTER LAWYER 1 (1990) (“To address the issues coherently, the court must not only grasp the facts of the immediate dispute; the court must also understand the overall technological context in order to anticipate the likely impact of the principle on potential related disputes.”).

26. Blavin, *supra* note 8, at 266.

27. Linda Greenhouse, *What Level of Protection for Internet Speech?*, N.Y. TIMES, Mar. 24, 1997, at D5 [hereinafter Greenhouse, *Internet Speech*].

28. BOSMAJIAN, *supra* note 3, at 38.

29. See *infra* Part II.B.

30. John Lawler, *Metaphors We Compute By*, in FIGURES OF THOUGHT FOR COLLEGE WRITERS (Dona J. Hickey ed., 1999).

persuasive metaphor, no matter how misguided the analogy may prove to be.

Regardless of the potential hazards of metaphors, it is reasonable to assume that courts will continue to employ metaphors. As Bosmajian observed, “we [cannot] ignore the heavy reliance of the courts on . . . metaphor, metonymy and personification.”³¹ Courts will continue to impose the metaphors they choose in novel areas of law, such as emerging technologies, onto the landscape of law by incorporating them into precedents. Particularly in cases involving issues of first impression, the choice of metaphor thus may serve to shape innumerable subsequent opinions.

This phenomenon already may be observed with respect to the Internet. The Internet is still a relatively new (and still developing) technology,³² but it has been the subject of extensive legal analysis, particularly the application of traditional personal jurisdiction principles to this new medium of communication.³³ To gain some level of comfort, if not competency, with the technology of the Internet, courts are resorting to the use of metaphors and analogies to existing technology. Any assessment of how well courts have done in the process should begin by asking how well their decisions reflect an understanding of the technology underlying the Internet—at least to the extent that such an understanding is necessary to reach a well-reasoned conclusion. Courts are being asked to resolve issues such as whether activities existing solely in so-called “cyberspace”³⁴ satisfy the traditional principle of minimum contacts, a determination that is difficult, if not impossible, without some level of competence in understanding the basic functioning of the technology.

The initial (and eventually rejected) objective of this Author was to determine how courts analyzing issues surrounding the Internet might avoid metaphors altogether³⁵ by instead providing them with an

31. BOSMAJIAN, *supra* note 3, at x.

32. The first node was connected to the network that would come to be known as the “Internet” in 1969. Barry M. Leiner et al., *A Brief History of the Internet*, at <http://www.isoc.org/internet-history/brief.html> (last visited Jan. 14, 2004). But widespread use of the Internet did not occur until the development of the World Wide Web, which was added to the Internet in 1991. J. Allan Cobb, *Evidentiary Issues Concerning Online “Sting” Operations*, 39 BRANDEIS L.J. 785, 791 (2001).

33. See Paul Berman, *The Globalization of Jurisdiction*, 151 U. PA. L. REV. 311, 330–33, 512–16 (2002).

34. The term “cyberspace” was coined by William Gibson in his short story “Burning Chrome.” William Gibson, *Burning Chrome*, OMNI, July 1982, at 72, reprinted in WILLIAM GIBSON, *BURNING CHROME* 176 (1986). In his science fiction novel *NEUROMANCER*, Gibson prophesied a virtual reality generated by computers in which people could interact, conduct business meetings, and find entertainment. WILLIAM GIBSON, *NEUROMANCER* (1984) [hereinafter *NEUROMANCER*].

35. Timothy Wu advocates refocusing legal analysis on the application layer above the Internet’s basic protocols. Timothy Wu, *Application-Centered Internet Analysis*, 85 VA. L. REV. 1163, 1164 (1999) (“We need, I think, to focus on the user, not on the network, and that means legal analysis that begins with the application.”). Under this approach, there is no need to find the elusive metaphor that captures the Internet as a whole, i.e., that captures a “singular model” of the Internet. *Id.* at 1163.

accessible technical explanation of the Internet.³⁶ This proposal leads me to examine, as a foundational matter, what metaphors are, why we use them, and what role they play in the comprehension of complex phenomena. That examination of metaphor quickly led to the conclusion that it is likely that judges have a natural tendency to analogize the new to the familiar. If judges are determined to choose among metaphors, then if one attempts to eliminate metaphors altogether in lieu of a technical explanation, this will simply leave a void that human nature will nonetheless attempt to fill. Indeed, that is exactly what philosophy scholar Max Black suggests will occur:

Max Black asked, “Why stretch and twist, press and expand, concepts in this way? Why try to see A as metaphorically B, when it literally is not B?” Black answered, “Well, because we *can* do so, conceptual boundaries not being rigid, but elastic and permeable; and because we often need to do so, the available literal resources of the language being insufficient to express our sense of the rich correspondences, interrelations, and analogies of domains conventionally separated; and because metaphorical thought and utterance sometimes embody insight expressible in no other fashion.”³⁷

In other words, no matter how simply you explain that “A is A,” human nature will look for the comfortable and familiar “B” with which to understand it. Cognitive science has established that our ability to understand new and abstract concepts is grounded in tropology.³⁸ The better approach, then, appears to be one that acknowledges this central aspect of human cognition, that is, to focus the attention of courts on selecting the best “B” for the job.

Part II of this Article discusses the role of metaphor and the use of metaphor by courts in the context of technology litigation. Part III focuses more specifically on the role of metaphor in recent efforts by judges to apply traditional concepts of jurisdiction to the new realm of

Rather, courts should focus on understanding the functioning of the relevant application as it is viewed by users. *Id.* at 1164.

36. In the early 1990s, parties in trials involving computer technology began providing purportedly neutral, objective technology tutorials to the judge or jury in background sessions. These sessions typically took the form of presentations by experts, including “demonstrations, movies, and active models, as well as illustrative charts or photographs,” during which the audience (judge or jury) was able to ask questions. Zimmerman, *supra* note 25, at 1–2. Zimmerman notes that, while courts appear receptive to this approach in high-tech litigation, such presentations are unlikely to be truly neutral or objective. *Id.* at 2.

37. BOSMAJIAN, *supra* note 3, at 44 (quoting MAX BLACK, *MODELS AND METAPHORS* 34 (1962)).

38. MARK JOHNSON, *THE BODY IN THE MIND* xiv-xv (1987) (“[C]onceived metaphor is not merely a linguistic mode of expression; rather, it is one of the chief cognitive structures by which we are able to have coherent, ordered experiences that we can reason about and make sense of.”); George Lakoff, *The Neurocognitive Self*, in *THE SCIENCE OF THE MIND* 229 (Robert Solso & Dominic Massaro eds., 1995) (“We have discovered, over the past decade and a half, that a conceptual system contains an enormous subsystem of thousands of conceptual metaphors—mappings that allow us to understand the abstract in terms of the concrete.”).

the Internet. The Article briefly concludes with a discussion of the ongoing need to examine the metaphors courts are selecting for emerging technologies, such as the Internet, and to challenge their accuracy. Courts must examine whether the metaphors offered to them to explain new technologies are actually useful in creating clearer perceptions, or whether they confuse, mislead, or misdirect. In looking at these questions in the context of the Internet, one comes face to face with the fact that the terminology of the Internet itself is a trope, wrapped in a metaphor, surrounded by a simile.³⁹

II. TROPES, ANALOGIES, AND METAPHORS, OH MY!

*You don't see something until you have the right metaphor to let you perceive it.*⁴⁰

A. Meaning of Metaphor

Linguists and cognitive scientists view metaphor as a primary vehicle of cognition.⁴¹ Humans make pervasive use of metaphor to structure their understanding of the world, especially those facets of the world that are removed from immediate, bodily experience.⁴²

The first known theory regarding metaphors was presented by Aristotle, who saw metaphor as a rhetorical phenomenon.⁴³ By using one concept or word to indicate another, discourse could become more exciting and elegant. As expressed by Kant, metaphors comprise the

39. To complicate matters for the non-techno-savvy, the language of technology is creeping into common usage. A recent revision of the Concise Oxford Dictionary, released July 12, 2001, includes high-tech words such as "MP3," "e-book," "i-mode" (Japan's wireless Internet service), and "digital divide" ("the gulf between those who have ready access to computers and the Internet, and those who do not"). CONCISE OXFORD DICTIONARY (10th ed. 2001), available at <http://www.askoxford.com/pdf/newwordscod.pdf> (last visited Feb. 11, 2004).

One court has noted, "[j]udges and legislators faced with adapting existing legal standards to the novel environment of cyberspace struggle with terms and concepts that the average American five-year-old tosses about with breezy familiarity." *American Libraries Ass'n v. Pataki*, 969 F. Supp. 160, 161 (S.D.N.Y. 1997). The judge in *American Libraries Ass'n* describes his confusion regarding the plaintiffs' expert witness testimony about her online experiences:

[O]n one occasion while she was in a MUD (a Multi-User Dungeon), a malefactor sicced his 'virtual dog' on her because she had trespassed on his domain. Fortunately, the other inhabitants of the MUD came to her rescue, vehemently protesting the unfriendliness of the virtual canine attack. Relieved as I was that the story had a happy ending, I must admit that it afforded me a window into an entirely unknown world.

Id. at n.1.

40. THOMAS KUHN, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* 262 (2d ed. 1970) (examining paradigms in science).

41. See, e.g., LAKOFF & JOHNSON, *supra* note 5, at 6 (stating "human thought processes are largely metaphorical") (emphasis in original).

42. *Id.* at 56-60

43. "[M]etaphor 'consists in giving the thing a name that belongs to something else.'" Thornburg, *supra* note 13, at 225 n.15 (quoting ARISTOTLE, *POETICS* (1457b) (I. Bywater trans., 1954)).

conceptual spectacles through which we view the world.⁴⁴ Metaphors provide the “mental imagery that allows us to extrapolate a path, or zoom in on one part of the whole, or zoom out until the trees merge into a forest.”⁴⁵

Metaphors are received by the “deeper structures” of the hearer’s brain, where they are given significance and assigned meaning.⁴⁶ The unconscious mind especially appreciates the relationships provided by metaphor and analogy.⁴⁷ Research in cognitive linguistics has established that “metaphor is not merely a figure of speech, but is a specific mental mapping that influences a good deal of how people think, reason, and imagine in everyday life.”⁴⁸ In addition, metaphors help us to understand unfamiliar concepts by mapping from a source domain, with which the user is presumably familiar, to a target domain, which the user is trying to master.⁴⁹ A metaphor can then be extended to include these new concepts.⁵⁰

The benefits of metaphor do not come without a price. As several jurists have warned, “metaphors illuminate, yet may also be delusive.”⁵¹ Philosopher Monroe Beardsley similarly warns us:

The trouble with metaphors is that they have a strong pull on our fancy. They tend to run away with us. Then we find that our thinking is directed not by the force of argument at hand, but at the interest of the image in our mind Because of its very complexity, its multiplicity of meaning, a metaphor is hard to control—to keep from saying things you don’t want to say, along with the things you do want to say It is not only meanings that sometimes tend to run away with us in metaphor. It is thinking itself. A metaphor can be extremely helpful to thought, when it suggests an analogy that opens up new lines of inquiry; but if the

44. WILLIAM H. CALVIN, *THE CEREBRAL CODE* 159 (1996).

45. *Id.* at 160.

46. Jim Accardi, *Winning Closing Arguments with Narrative Metaphor*, *THE PROSECUTOR*, Nov.-Dec. 1999, at 38 (citing P. BROWN, *THE HYPNOTIC BRAIN: HYPNOTHERAPY AND SOCIAL COMMUNICATION* 123–51 (1991)). Accardi, a district attorney, describes how he uses narrative metaphors as a means of persuasion in his closing arguments. In his experience, using metaphorical stories to suggest that the defense’s strategies are fraudulent proves effective: “In the end, jurors are entertained but left with deep (but unconscious) resentment against the defense; and the opposing counsel is left defenseless against this unseen stealth weapon.” *Id.* at 39.

47. *Id.* at 38.

48. Raymond W. Gibbs, Jr., *Taking Metaphor Out of Our Heads and Putting it into the Cultural World*, in *METAPHOR IN COGNITIVE LINGUISTICS* 145, 145 (Raymond W. Gibbs, Jr. & Gerard J. Steen eds., 1997).

49. LAKOFF & JOHNSON, *supra* note 5, at 52; GEORGE LAKOFF & MARK TURNER, *MORE THAN COOL REASON: A FIELD GUIDE TO POETIC METAPHOR* 38–39 (1989); GEORGE LAKOFF, *WOMEN, FIRE, AND DANGEROUS THINGS: WHAT CATEGORIES REVEAL ABOUT THE MIND* 6 (1987).

50. LAKOFF & JOHNSON, *supra* note 5, at 52.

51. James D. Hopkins, *Notes on Style in Judicial Opinions*, 8 *TRIAL JUDGES J.* 49, 50 (1969), reprinted in Robert A. Leflar, *Quality in Judicial Opinions*, 3 *PACE L. REV.* 579, 585 (1983).

image is strong and colorful, it can fasten itself upon us and control our thinking too rigidly.⁵²

The metaphor thus becomes the reality.⁵³

In “Metaphor and Paradox,” Thomas Ross concludes that “metaphors [are] at once obscure and express the paradoxical nature of the pieces of law to which they refer. Left unexamined, they nicely obscure the deep contradictions.”⁵⁴ Metaphor thus may have “as great a potential to mislead as to enlighten.”⁵⁵

The judicial system provides particularly fertile ground for the power of metaphor to obfuscate.⁵⁶ As Bosmajian notes, legal discourse often entails “seemingly objective principles . . . expressed in nonliteral language.”⁵⁷ When those principles are expressed as metaphors, “what appears on the surface to be objective becomes rather subjective since a metaphor can be replaced with a different metaphor. By choosing one metaphor over another, like the poet, novelist, or politician, the jurist makes a subjective choice.”⁵⁸ Judicial opinions that appear on the surface to be objective and realistic on the surface, may, by virtue of the use of metaphor, “hide their own ‘subjectivity and culture-boundedness.’”⁵⁹

The principle of *stare decisis* (as well as persuasive authority) amplifies this effect. “Pre-emptive metaphors” may be imposed by influential courts deciding novel issues.⁶⁰ These metaphors come to define what is considered to be true by defining the framework for legal

52. BOSMAJIAN, *supra* note 3, at 38–39 (quoting MONROE C. BEARDSLEY, *THINKING STRAIGHT* 245 (2d ed. 1956)).

53. See ALDOUS HUXLEY, *THE DOORS OF PERCEPTION* 23 (1954).

Every individual is at once the beneficiary and the victim of the linguistic tradition into which he has been born—the beneficiary inasmuch as language gives access to the accumulated records of other people’s experience, the victim insofar as it . . . bedevils his sense of reality, so that he is all too apt to take his concepts for data, his words for actual things.

Id.

54. Thomas Ross, *Metaphor and Paradox*, 23 GA. L. REV. 1053, 1053 (1989).

55. BOSMAJIAN, *supra* note 3, at 200 (quoting Steven Winter, *The Metaphor of Standing and the Problem of Self-Governance*, 40 STAN. L. REV. 1371, 1387 (1988)). Take, for example, the ill-advised Internet analogy offered by Ithiel de Sola Pool, arguing that copyright law is inapplicable to the new medium:

Established notions about copyright become obsolete, rooted as they are in the technology of print. The recognition of a copyright and the practice of paying royalties emerged with the printing press. With the arrival of electronic reproduction, these practices become unworkable. Electronic publishing is analogous not so much to the print shop of the eighteenth century as to word-of-mouth communication, to which copyright was never applied.

Robert C. Cumbow, *Cyberspace Must Exceed Its Grasp, or What’s a Metaphor? Tropes, Trips and Stumbles on the Info Highway*, 20 SEATTLE U. L. REV. 665, 665 (1997) (quoting ITHIEL DE SOLA POOL, *TECHNOLOGIES OF FREEDOM* 214 (1983) (emphasis added)).

56. BOSMAJIAN, *supra* note 3, at 200. For example, the “meeting of the minds” requirement for a valid contract has been described as an “often deceptive metaphor.” *Laserage Tech. Corp. v. Laserage Lab., Inc.*, 972 F.2d 799, 802 (7th Cir. 1992) (citing FARNSWORTH, *CONTRACTS* § 3.6 at 118 (recommending that the “much abused” meeting of the minds metaphor be abandoned)).

57. BOSMAJIAN, *supra* note 3, at 200.

58. *Id.*

59. *Id.* at 204 (quoting HAYDEN WHITE, *TROPICS OF DISCOURSE* 104 (1978)).

60. See MILNER BALL, *LYING DOWN TOGETHER: LAW, METAPHOR AND THEOLOGY* 22 (1985).

analysis.⁶¹ Just as pre-emptive metaphors generally may cause what has been referred to as the “freezing over of culture,”⁶² judicial precedents may result in an unjustified freezing over of the law.

This effect may be unjustified because metaphors chosen for judicial opinions are not always adequate or accurate for the context. Justice Cardozo has warned (despite his well-known use of metaphors), “[m]etaphors in law are to be narrowly watched, for starting as devices to liberate thought, they end often by enslaving it.”⁶³ Other Supreme Court Justices also have voiced suspicion of judicial reliance on metaphorical expression. Justice Harlan criticized the “chilling effect” metaphor as “slippery” and “amorphous.”⁶⁴ Justice Rehnquist criticized the “wall of separation” metaphor, referring to it as “Jefferson’s misleading metaphor,”⁶⁵ and asserted that the metaphor “has proved useless as a guide to judging [Bill of Rights issues].”⁶⁶ Even the most suspect metaphors may become embedded in judicial precedent and affect judicial reasoning.⁶⁷

B. Technophobia

Reasoning by analogy and metaphor occurs in all areas of the law, but there is good reason to suspect that the troubling aspects of metaphor are more problematic in the context of cases involving new and evolving technology.⁶⁸ Technophobia, defined broadly as fear or dislike of advanced technology or complex devices⁶⁹ and, more narrowly, as anxiety or a negative attitude toward computers or computer-related technology,⁷⁰ remains prevalent despite the ubiquity of computers in society.⁷¹ Studies demonstrate that anxiety towards technology—or any subject matter—can be detrimental to learning, and that states of high

61. “Without access to alternative metaphors, we act and think on the basis of limited comprehension masquerading as the whole truth.” *Id.*

62. *Id.* (citing RICHARD RORTY, *PHILOSOPHY AND THE MIRROR OF NATURE* 377 (1979)).

63. *Berky v. Third Ave. Ry. Co.*, 155 N.E. 58, 61 (N.Y. 1929).

64. *Zwickler v. Koota*, 389 U.S. 241, 256 n.2 (1967).

65. *Wallace v. Jaffree*, 472 U.S. 38, 92 (1985).

66. *Id.* at 107.

67. “By unthinkingly and mechanically repeating the same image, we may in the end forget that it is metaphorical,” and the image may affect our feelings for the underlying object or idea in question. STEPHEN ULLMAN, *LANGUAGE AND STYLE* 237–38 (1964).

68. *E.g.*, BLAVIN & COHEN, *supra* note 8, at 267 (“Courts, however, have demonstrated a bad track record in adopting the appropriate analogies or metaphors for these new technologies.”).

69. MERRIAM-WEBSTER COLLEGIATE DICTIONARY 1210 (10th ed. 1993).

70. MARK J. BROSNAN, *TECHNOPHOBIA: THE PSYCHOLOGICAL IMPACT OF INFORMATION TECHNOLOGY* 10 (1998).

71. Some studies of technophobia report between one-fourth and one-third of the population sample as technophobic. *Id.* at 12. One study of college students reported a result as high as fifty percent. *Id.* Another study estimates that one third of the entire population of the industrial world shows signs of technophobia. *Id.* at 36 (citing M. Brosnan & M. Davidson, *Computerphobia: Is It a Particularly Female Phenomenon?*, 7 *THE PSYCHOLOGIST* 73, 73–78 (1994)).

anxiety impair performance.⁷² If judges evince the same susceptibility to technophobia that has been observed in the general population, then they may more quickly accept metaphors and analogies for new technologies without undertaking the more difficult task of understanding whether they fit within the context of the particular issues before them.

This Article does not (and cannot) offer a hard and fast rule for determining the “best” metaphor in each case,⁷³ but suggests that this task requires courts to look beyond metaphors for technology to consider whether they obscure differences between the technology and the familiar concept to which it is being related, and to ask whether those distinctions suggest an outcome different from that urged by a metaphor’s proponent. This is a familiar exercise for courts; it should not be abandoned as a shortcut for applying established principles to new technologies.⁷⁴

72. *Id.* at 19 (citing K.E. Friend, *Stress and Performance: Effects of Subjective Work Load and Time Urgency*, 35 PERS. PSYCHOL. 623–33 (1982)). One study reports that the higher the level of anxiety towards computers, the lower the ability to learn to use computers. George A. Marcoulides, *The Relationship Between Computer Anxiety and Computer Achievement*, 4 J. EDUC. COMPUTING RES. 151–58 (1988). However, the causal effect between anxiety and low performance has been largely inferred rather than proven. BROSAN, *supra* note 70, at 19–20.

73. Orin Kerr offers an enlightening analysis regarding the difficulties in applying legal rules to the “facts” of the Internet:

The Internet’s facts depend on whether we look to physical reality or virtual reality for guidance. We can model the Internet’s facts based on virtual reality, looking from the perspective of an Internet user who perceives the virtual world of cyberspace and analogizes Internet transactions to their equivalent in the physical world. Alternatively, we can model the facts based on the physical reality of how the network operates. From this perspective, Internet transactions can be understood based on how the network actual works “behind the scenes,” regardless of the perceptions of a user.

Orin S. Kerr, *The Problem of Perspective in Internet Law*, 91 GEO. L. J. 357, 357 (2003).

74. Kerr notes just such an example that occurred nearly a century ago. *Id.* at 388 n.174. In *Western Union Telegraph Co. v. Olivarri*, 110 S.W. 930 (Tex. Civ. App. 1908), *aff’d* 135 S.W. 1158 (Tex. 1911), a woman in Texas sent a telegram in Spanish to her husband in Mexico informing him that her newborn twin sons would probably not live. *Id.* at 931. Western Union failed to deliver the message, and Ms. Olivarri’s husband did not arrive in time to take care of her during her children’s deaths. *Id.* She subsequently sued Western Union for her pain and suffering. *Id.* The established rule of law was that the telegraph company could not be liable for failure to deliver a telegram correctly unless the telegraph company knew or should have known of the importance of the telegram on its face. *Id.* at 932. Western Union argued that messages in a foreign language were like “cipher” (*i.e.*, encrypted) messages, which by their nature conceal the content of the message from the telegraph company. *Id.* The Texas Court of Civil Appeals rejected the analogy:

We do not think a message in a foreign tongue for delivery in a country where that tongue is written and spoken can be placed in the same category as a cipher message. That kind of message is sent for the purpose of concealing from the telegraph company, as well as all other parties, except the person to whom it is sent, the purport of the message. The telegraph company, not being in possession of the key to their meaning, cannot possibly understand such telegrams, and is under no obligation to make any inquiries in regard to them. In fact disclosure of their meaning would defeat their very object in sending them. The telegram, however, to a person in a foreign country in the language of that country, is not intended to conceal.

Id.

C. Role of Metaphors in Legal Discourse and New Technologies

*[M]etaphor is what enables one to pass from the more familiar to the unfamiliar. . .*⁷⁵

The observation that metaphor serves a distinct role in cases involving new subject matter such as emerging technologies is not novel.⁷⁶ The Supreme Court has been observed to “succumb to the temptation to analogize new electronic media to existing technologies for which they have already [constitutional] models” to rely upon.⁷⁷ Thirty years ago, for example, the Court was confronted with finding a constitutional framework for electronic eavesdropping, a technology that did not fit neatly into existing categories. It had to decide whether, without the physical intrusion that usually constitutes a “search,” eavesdropping fell within the Fourth Amendment’s prohibition against unreasonable searches.

The Court ruled affirmatively on this question in its landmark 1967 decision *Katz v. United States*,⁷⁸ finding that federal agents had conducted an unconstitutional search when they used an eavesdropping device, placed without a warrant on the outside of a public telephone booth, to listen to a gambler’s phone calls. The Justices reasoned by analogy that when the gambler shut the phone booth’s door, he intended to shut out “the uninvited ear” no less than someone at work who closes the door to his office.⁷⁹

Analogy played a role five decades before *Katz* when the Court was required to analyze the new technology of motion pictures.⁸⁰ In 1915, the Supreme Court initially seemed to reject any analogy that lumped motion pictures with printed media, stating that motion pictures were “not to be regarded . . . as part of the press of the country.”⁸¹ But in 1948, the Court nonetheless found that “moving pictures . . . are included in the press whose freedom is guaranteed by the First Amendment.”⁸² One commentator notes that “[i]t was such myopia that caused early films to

75. Hugh G. Petrie & Rebecca S. Oshlag, *Metaphor and Learning*, in METAPHOR AND THOUGHT 589 (Andrew Ortony ed., 2d ed. 1993).

76. See, e.g., Clay Calvert, *Regulating Cyberspace: Metaphor, Rhetoric, Reality, and the Framing of Legal Options*, 20 HASTINGS COMM. & ENT. L.J. 541, 542 (1998) (“Metaphors employed to study an emerging technology usually end up influencing the shape it takes.”) (quotations omitted); Greenhouse, *Internet Speech*, *supra* note 27, at D5 (“Analogy is the only real road map for courts when technological change leaves them in unknown legal territory.”); Dan Hunter, *Cyberspace as Place and the Tragedy of the Digital Anticommons*, 91 CAL. L. REV. 439, 460–73 (2003).

77. Note, *The Message in the Medium: The First Amendment on the Information Superhighway*, 107 HARV. L. REV. 1062, 1062 (1994).

78. *Katz v. United States*, 389 U.S. 347 (1967).

79. *Id.* at 351.

80. *Mutual Film Corp. v. Industrial Comm’n*, 236 U.S. 230 (1915).

81. *Id.* at 244.

82. *United States v. Paramount Pictures, Inc.*, 334 U.S. 131, 166 (1948).

be labeled as ‘moving pictures,’ rather than to be recognized as a new art form.”⁸³

Fourth Amendment jurisprudence continues to sprout tropes used to relate new technology to more familiar concepts. Challenges brought under the Fourth Amendment, for example, have required courts to analyze the nature of computer files.⁸⁴ In *United States v. Walser*, the court recognized the limits of the use of analogies in this process:

The advent of the electronic age and, as we see in this case, the development of desktop computers that are able to hold the equivalent of a library’s worth of information, go beyond the established categories of constitutional doctrine. Analogies to other physical objects, such as dressers or file cabinets, do not often inform the situations we now face as judges when applying search and seizure law. This does not, of course, mean that the Fourth Amendment does not apply to computers and cyberspace. Rather, we must *acknowledge the key differences and proceed accordingly*.⁸⁵

That is essentially the approach taken by the Tenth Circuit in *United States v. Carey*, in which the court suppressed computer files containing pornographic images seized from the defendant.⁸⁶ The files were discovered on the defendant’s computer after it was seized during a search of his home for drugs.⁸⁷ He moved to suppress the computer files on the ground, *inter alia*, that the police search of his computers exceeded the scope of their original warrant to search the defendant’s computer for “documentary evidence pertaining to the sale and distribution of controlled substances.”⁸⁸ The government defended the search under the plain view doctrine, which authorizes a police officer to seize evidence of a crime without a warrant if the officer is in a lawful position to view the object in plain view and its incriminating character is immediately apparent.⁸⁹ To support its position, the government asserted that “a computer search such as the one undertaken in this case is tantamount to looking for documents in a file cabinet, . . . and instead finding child pornography,” because the images were in plain view.⁹⁰

The court rejected the file cabinet analogy after examining the nature of the materials seized. It found the government’s argument that the computer files were in plain view unavailing because it was “the

83. Ethan Katsh, *Law in a Digital World: Computer Networks and Cyberspace*, 38 VILL. L. REV. 403, 407 (1993).

84. See, e.g., *United States v. Walser*, 275 F.3d 981, 986 (10th Cir. 2001); *United States v. Carey*, 172 F.3d 1268, 1275 (10th Cir. 1999); *United States v. Upham*, 168 F.3d 532, 535 (1st Cir. 1999) (“A sufficient chance of finding some needles in the computer haystack was established by the probable-cause showing in the warrant application; and a search of a computer and co-located disks is not inherently more intrusive than the physical search of an entire house for a weapon or drugs.”).

85. *Walser*, 275 F.3d at 986 (emphasis added).

86. *Carey*, 172 F.3d at 1276.

87. *Id.* at 1270.

88. *Id.* at 1270–72.

89. *Id.* at 1272.

90. *Id.*

contents of the files and not the files themselves which were seized.”⁹¹ The court observed that the officers could distinguish between text files and JPG files containing images before opening them, thus the court could not say that the contents of the files were inadvertently discovered.⁹² The court concluded with a note of caution regarding the adequacy of a file cabinet analogy to analyze electronic storage devices in Fourth Amendment cases: “Relying on analogies to closed containers or file cabinets may lead courts to ‘oversimpli[fy] a complex area of Fourth Amendment doctrine and ignore the realities of massive modern computer storage.’”⁹³

In *United States v. Thompson*,⁹⁴ the court employed analogy to determine whether evidence found within computer files properly supported the enhanced sentences of the defendants. The defendants were convicted of child pornography offenses.⁹⁵ The district court enhanced the defendants’ sentences, pursuant to § 2G2.4(b)(2) of the Federal Sentencing Guidelines, based upon the presence of multiple “items” depicting images of sexual exploitation of a minor found on the defendants’ computers.⁹⁶ Section 2G2.4(b)(2) of the Federal Sentencing Guidelines provides for a two-level enhancement if a child pornography offense “involved possessing ten or more books, magazines, periodicals, films, video tapes, or other items, containing a visual depiction involving the sexual exploitation of a minor.”⁹⁷ The defendants in *Thompson* appealed their sentence on the ground that the term “items” means an entire computer disk, not individual computer files. On appeal, the Tenth Circuit stressed that “[t]he central problem rests on which thing, a computer disk or a computer file, is most like ‘books, magazines, periodicals, films, and video tapes,’” the items enumerated in § 2G2.4(b)(2) of the Federal Sentencing Guidelines.⁹⁸

The defendants argued that “[t]o say that a graphic image file is the container holding the image would be the equivalent of saying that the square of cardboard that makes up the Polaroid is the container for the photograph, or even the piece of canvas upon which da Vinci painted was merely the container for the Mona Lisa.”⁹⁹ However, following the reasoning in *United States v. Fellows*,¹⁰⁰ the court concluded that the nearest computer analog to “books, magazines, periodicals, films, [and]

91. *Id.* at 1273.

92. *Id.*

93. *Id.* at 1275 (quoting Raphael Winick, *Searches and Seizures of Computers and Computer Data*, 8 HARV. J.L. & TECH. 75, 110 (1994)).

94. *United States v. Thompson*, 281 F.3d 1088 (10th Cir. 2002).

95. *Id.* at 1089.

96. *Id.*

97. U.S. SENTENCING GUIDELINES MANUAL § 2G2.4(b)(2) (1998) (emphasis added).

98. *Thompson*, 281 F.3d at 1095.

99. *Id.* at 1091.

100. *United States v. Fellows*, 157 F.3d 1197, 1200 (9th Cir. 1998) (holding that each computer graphics file containing visual depictions of child pornography was an “item” under the Sentencing Guideline provision allowing for base offense level increase for possession of ten or more “items”).

videotapes” is a computer file because “[v]isual depictions in a computer are compiled and stored in graphics files, much like photographs are compiled and stored in books or magazine. . . . [T]he computer user can separately view, copy, delete, or transmit each discrete graphics file.”¹⁰¹ The court therefore held that separate computer files on one computer disk counted as discrete “items” under § 2G2.4(b)(2).¹⁰² The court supported its holding by examining the physical relationship between a computer file and data stored on a computer: “A file is a collection of information (such as text, numbers, graphics, sound or video) stored on a particular medium. . . . A graphic image does not exist without a file—the format of the file defines the image.”¹⁰³ The court thus looked beyond the analogy proposed by the defendants to determine how the relevant technology actually functions.¹⁰⁴

The importance and power of metaphors is equally clear in First Amendment jurisprudence. In his seminal work, Bosmajian examines the use of metaphors in the reasoning of court opinions dealing with First Amendment issues, including the best-known metaphor in First Amendment discourse, the “marketplace of ideas.”¹⁰⁵ The “marketplace of ideas” metaphor developed from Justice Holmes’ dissenting opinion in *Abrams v. United States*.¹⁰⁶ He wrote: “But when men have realized that time has upset many fighting faiths, they may come to believe even more than they believe the very foundations of their own conduct that the ultimate good desired is better reached by *free trade in ideas* – that the best test of truth is the power of the thought to get itself accepted in the competition of the *market*.”¹⁰⁷ Bosmajian notes:

Since there is no literal marketplace of ideas in the world, a [court] might just as well rely on a metaphoric “quest,” “war,” “forest,” “galaxy,” or “rainbow” of ideas. But Justice Holmes was part of a laissez-faire society, and his “free trade in ideas” in the “competition of the market” entered our judicial vernacular. . . . By relying on the Holmes metaphor, [the court has] chosen to highlight competitiveness in the buying and selling of ideas; had a ‘quest’ metaphor prevailed, we would be highlighting searching, a journey, inquiry¹⁰⁸

101. *Thompson*, 281 F.3d at 1091 (quoting *Fellows*, 157 F.3d at 1221).

102. As the *Thompson* court acknowledged, the holding in this case is of limited applicability because § 2G2.4(b)(2) was amended in November 2000 to make the term “items” include computer files. *Id.* at 1090 n.1.

103. *Id.* at 1091.

104. *Id.* (“[The defendants’] argument underestimates the importance of a file when it comes to computers.”).

105. In a separate opinion written as part of the three-judge U.S. District Court panel in Philadelphia that declared the Communications Decency Act unconstitutional, Judge Stewart Dalzell described the Internet as “[t]he most participatory marketplace of mass speech that this country—and indeed the world—has yet seen.” *ACLU v. Reno*, 929 F. Supp. 824, 881 (E.D. Pa. 1996).

106. BOSMAJIAN, *supra* note 3, at 13 (citing *Abrams v. United States*, 250 U.S. 616 (1919)).

107. *Id.*

108. *Id.* at 200–01.

This choice of metaphor (or in this case, the interpretation of language suggesting a metaphor) has thus helped shape an entire arena of constitutional law.¹⁰⁹ The use of metaphors in the First Amendment arena has proven to have particular significance with respect to the new medium of expression known as the Internet.

The Supreme Court has created a hierarchy of speech by granting different degrees of First Amendment protection in accordance with a particular medium of expression. In 1949, Justice Robert H. Jackson wrote in a concurring opinion in *Kovacs v. Cooper*:

I do not agree that, if we sustain regulations or prohibitions of sound trucks, they must therefore be valid if applied to other methods of "communication of ideas." The moving picture screen, the radio, the newspaper, the handbill, the sound truck and the street corner orator have differing natures, values, abuses and dangers.¹¹⁰

Each method of communication "is a law unto itself."¹¹¹

The Court has offered various rationales for relegating broadcast media—first radio and then television – to a low rung of the First Amendment hierarchy: the finite size of the broadcast spectrum, justifying federal regulation in the public interest;¹¹² its "uniquely pervasive presence in the lives of all Americans;"¹¹³ and the ease with which children too young to read can turn a dial and be exposed to unsuitable material.¹¹⁴

Because of this hierarchy of speech, varying according to the medium of expression involved, the Supreme Court has been forced to determine what the Internet is, in order to properly determine where to place it in the hierarchy of First Amendment protection.¹¹⁵

109. See, e.g., CASS R. SUNSTEIN, *DEMOCRACY AND THE PROBLEM OF FREE SPEECH* 23–28 (1993) (describing the market metaphor as one of many metaphors used in news and political media with constitutional implications).

110. *Kovacs v. Cooper*, 336 U.S. 77, 97 (1949).

111. *Id.*

112. The court is to some extent more protective of speech on cable television, where the capacity to offer dozens of channels negates the spectrum-scarcity rationale. But the Supreme Court has avoided pinning themselves down to a legal standard for regulation of cable, citing evolving technology and the absence of a "definitive choice among competing analogies." *Denver Area Educ. Telecomm. Consortium v. FCC*, 518 U.S. 727, 741–42 (1996). Justice Thomas (concurring in the judgment and dissenting in part) criticized the majority for declining to determine whether cable television is more closely analogous, for purposes of First Amendment analysis, to a print medium or a broadcast medium. *Id.* at 812–19. One writer has asked, "Can a court that is nervous about cable television even begin to tackle the Internet, surely as dramatic a departure from the old means of communication as eavesdropping was from an old-fashioned police search?" Greenhouse, *Internet Speech*, *supra* note 23.

113. *FCC v. Pacifica Found.*, 438 U.S. 726, 727 (1978).

114. *Id.* at 748–49. The Supreme Court explains that the limited First Amendment protection given to broadcast media is justified, first, because "[t]he broadcast media have established a uniquely pervasive presence in the lives of all Americans," and second, because it is "uniquely accessible to children, even those too young to read." *Id.*

115. Eugene Volokh suggests that the opinion in *Reno v. ACLU*, 521 U.S. 844 (1997), exposes difficulties in the strict scrutiny framework itself, under which courts rely on the metaphor of

That determination was critical to the Supreme Court's decision regarding the constitutionality of the Communications Decency Act of 1996 ("CDA") in *Reno v. ACLU*.¹¹⁶ The CDA made it a federal crime to display "patently offensive" or "indecent" sexually explicit material over the Internet in a manner accessible to children. The Act defines indecency as material that "depicts or describes, in terms patently offensive as measured by contemporary community standards, sexual or excretory activities or organs."¹¹⁷

Indecent speech, as distinguished from obscenity, is entitled to First Amendment protection.¹¹⁸ However, it may be regulated to a greater or lesser degree, depending on the medium through which it is conveyed.

In *Reno*, the basic question for the Court was where on the spectrum of free speech the Internet belongs: whether it is analogous to radio and television, where indecent speech may be restricted for the purpose of shielding children, or whether its special qualities entitle it to the full First Amendment protection accorded the press. The case thus boiled down to a battle between the lawyers for each party to present the analogy for the Internet most likely to lead to their respective desired result. During the seventy-minute¹¹⁹ oral argument before the Supreme Court in *Reno*, the attorneys spent a significant portion of their time discussing how the Internet works.

The government attorneys defending the CDA characterized the Internet as "a free pass into the equivalent of every adult bookstore and video store" with the click of a mouse.¹²⁰ Attorneys for the parties challenging the CDA, on the other hand, portrayed the Internet as "democratizing and speech enhancing," distinctive as a forum for worldwide conversation at little or no cost.¹²¹ Moreover, the parties proffered specific and divergent analogies for the Court to use in relating the Internet to media analyzed under its prior precedents.

"balancing" to help decide when a competing government interest "outweighs" a free speech value:

Balancing sounds manageable because the metaphor conjures up a familiar real-life device: a balance scale used for weighing two physical objects. The balance scale, though, works only because it uses a reliable physical process that unerringly compares a single, easily commensurable, attribute of two items. No physical device can tell us whether some lump of government interest "weighs" more—is of greater "constitutional gravity"—than some chunk of free speech right. The statement "courts should balance" thus simply invites the question "How?"

Eugene Volokh, *Freedom of Speech, Shielding Children, and Transcending Balancing*, 1997 SUP. CT. REV. 141, 167–68.

116. *Reno*, 521 U.S. at 844.

117. 47 U.S.C. § 223(d) (2002).

118. Obscene material, defined as material appealing to the prurient interest which portrays sexual conduct in a patently offensive way, and which is lacking in any literary, artistic, political, or scientific value, is not entitled to any protection under the First Amendment. *Miller v. California*, 413 U.S. 15, 24 (1973).

119. The Justices added ten minutes to the standard hour in recognition of the importance and complexity of the case. Transcript of Oral Argument, *Reno v. ACLU*, 521 U.S. 844 (1997) (No. 96-511), in 1997 WL 136253 (Mar. 19, 1997) [hereinafter *Reno* Oral Argument].

120. *Id.* at *4.

121. *Id.* at *43.

As discussed below, there were several possible analogies the Court might have chosen in applying First Amendment principles to the Internet.¹²²

1. Television/Radio Analogy

The Supreme Court could have selected a television analogy. This analogy is, however, inherently flawed because television technology as a broadcast medium functions differently from the new technology.¹²³ To their credit, during the oral arguments in *Reno* the Justices appeared uninterested in pursuing the television analogy.¹²⁴

In contrast to print media, the Court demonstrated under its prior rulings that it is willing to permit regulation of radio and television, relegating these media to a lower rung on the First Amendment hierarchy.¹²⁵ As the Court said in *FCC v. Pacifica Foundation*, broadcast media's "uniquely pervasive presence in the lives of all Americans" and the easy access by children justified federal regulation in the public interest.¹²⁶

If the Court adopted the radio or television analogy, it could allow legislators considerable latitude in regulating pornography on the Internet—a fact that was not lost on attorneys for the plaintiff. Christopher A. Hansen, the lead counsel for the ACLU, stated "[t]he danger was that the judges would see a computer screen and, because it looks like a television, they would think of it as a television."¹²⁷ The parties challenging the CDA thus knew they could not succeed in their constitutional challenge unless they persuaded the Court to look beyond this physical analogy to see the Internet as something new.¹²⁸

122. The list of analogies discussed here is by no means exhaustive, as illustrated by Robert Reilly:

Many metaphors have been offered in attempts to capture the nature and meaning of an online computer network. . . . It is analogous to a: newspaper, republisher/disseminator, common carrier (e.g., telephone company), traditional bulletin board (the wood and cork type), broadcaster, desk at the office, desk at home in the den, free and open frontier, safe deposit box in a bank, hotel/motel room which one has rented, fraternity/sorority house. Depending on which metaphor is invoked, the legal perspective of a computer [network] will vary greatly.

Robert Reilly, *Mapping Legal Metaphors in Cyberspace: Evolving the Underlying Paradigm*, 16 J. MARSHALL J. COMPUTER & INFO. L. 579, 581 n.13 (1998).

123. Greenhouse, *Internet Speech*, *supra* note 27.

For the Internet, the most obvious physical analogy is television. A computer monitor, after all, looks most like a television screen; turn the computer on, and the blank screen fills with images. But a physical analogy is imperfect at best, particularly when the old technology functions entirely differently from the new. Television, after all, has tended to be a one-way medium sending images and sound to many viewers; the Internet allows many people to communicate simultaneously with many others.

Id.

124. *Id.*

125. *Id.*

126. *FCC v. Pacifica Found.*, 438 U.S. 726, 748–49 (1978).

127. Linda Greenhouse, *Statute on Internet Indecency Draws High Court Review*, N.Y. TIMES, Dec. 7, 1996, at 10.

128. Greenhouse, *Internet Speech*, *supra* note 27.

The government, on the other hand, believed it had to “anchor the Internet firmly in the world of broadcast.”¹²⁹ Thus, the government relied heavily upon *Pacifica Foundation*, known as the “seven dirty words” case, which upheld the government ban on the prime time broadcast of sexually explicit speech.¹³⁰

2. Newspaper Analogy

A newspaper analogy to the Internet was far more attractive to those challenging the CDA. Any government effort to censure a newspaper for printing even sexually explicit language could be challenged as a violation of the First Amendment. If the Court concluded that Internet communications more closely resemble the contents of a newspaper, it would apply stricter scrutiny to any government control.

Judge Stewart R. Dalzell on the three-judge panel of the federal district court, which declared the CDA unconstitutional, appeared amenable to this analogy. He characterized the Internet as a never-ending global conversation that deserves the highest level of protection under the First Amendment,¹³¹ and considered the Internet “the most participatory marketplace of mass speech that this country—and indeed the world—has yet seen.”¹³² Judge Dalzell explicitly stated that the CDA was no more acceptable than would be a “Newspaper Decency Act” regulating the press or a “Novel Decency Act” regulating “pot-boilers in convenience store book racks.”¹³³

3. Telephone Analogy

During the oral arguments in *ACLU*, Justice Breyer asked several questions in which he compared conversation over the Internet to telephone conversations.¹³⁴ This line of questioning was ominous for the government. In 1989, in *Sable Communications v. FCC*, the Supreme Court affirmed that a federal ban on indecent dial-a-porn pre-recorded sex messages was unconstitutional.¹³⁵ The Court concluded in *Sable Communications* that private telephone conversations do not share the “uniquely pervasive” dangers of radio and television broadcasts that can turn unwilling listeners into a captive audience.¹³⁶ The government therefore could not create a blanket prohibition of indecent interstate commercial telephone messages without first showing that the

129. *Id.*

130. *Id.*; *Pacifica Found.*, 438 U.S. at 750–51.

131. *ACLU v. Reno*, 929 F. Supp. 824, 883 (E.D. Pa. 1996) (Dalzell, J., concurring).

132. *Id.* at 881.

133. *Id.* at 882.

134. *Reno* Oral Argument, *supra* note 119, at *30–31.

135. *Sable Communications of Cal. v. FCC*, 492 U.S. 115, 131 (1989).

136. *Id.* at 127–28.

prohibition was necessary in order to limit access by minors to such messages (a burden the government could not meet).¹³⁷

When, during oral arguments in *ACLU*, Justice Breyer baldly stated, “the Internet is rather like the telephone,” the government’s attorney, Deputy Solicitor General Seth Waxman, quickly challenged this characterization, arguing instead that a telephone conversation is a “discrete communication,” while material “placed on a computer by anybody, anywhere, is available to everybody everywhere.”¹³⁸

4. Summary

In summary, if the Supreme Court used the analogy of radio or television, it would give the federal government wide-ranging latitude to regulate pornography on the Internet. If, however, it decided communication over the Internet was more like newspapers or telephone conversations, it would set higher barriers to government regulation. The district court, heeding the plaintiffs’ argument against adoption of a television or other broadcast media analogy, agreed that there are “significant differences between Internet communications and communications received by radio or television,” and struck down the provisions of the Act at issue.¹³⁹ The Supreme Court concurred, adopting the district court’s finding that “[u]nlike communications received by radio or television, ‘the receipt of information on the Internet requires a series of affirmative steps more deliberate and directed than merely turning a dial.’”¹⁴⁰ Applying the strict scrutiny analysis traditionally employed for print media, the Supreme Court held that the CDA was unconstitutionally overbroad.¹⁴¹

137. *Sable Communications*, 492 U.S. at 126 (“The Government may, however, regulate the content of constitutionally protected speech in order to promote a compelling interest [such as protecting minors] if it chooses the least restrictive means to further the articulated interest.”).

138. *Reno Oral Argument*, *supra* note 119, at *30–31.

139. *ACLU v. Reno*, 929 F. Supp. 824, 845–49 (E.D. Pa. 1996) (“[T]he receipt of information on the Internet requires a series of affirmative steps more deliberate and directed than merely turning a dial.”).

140. *Reno v. ACLU*, 521 U.S. at 854.

141. *Id.* at 874.

D. Metaphors and the Internet

1. "The Internet is . . ."

As discussed *infra*, choosing a metaphor—even the “correct” metaphor—constrains thought. Moreover, selecting the “wrong” metaphor for a novel phenomenon may unjustifiably limit future consideration of the subject. Choosing a metaphor or analogy for developing technologies such as the Internet may prematurely freeze the process of adapting existing legal principles to this new medium.

So which metaphor “best” applies to the Internet? As alluded to earlier, this question highlights the fact that the language used by the architects of the Internet itself is fraught with metaphors. Internet terminology that has become part of everyday vernacular illustrates this point. “Electronic mail,” or “e-mail,” implies that the Internet is primarily a print medium. Likewise, you can “browse” with your browser,¹⁴² as one would in a bookstore, and set “bookmarks” as well.¹⁴³ In cyberspace, we follow “links,” and visit “Web pages,” leaving a trail of “cookies” along the way.¹⁴⁴ As Raymond Gozzi, Jr., noted, “[w]e cannot see the Internet except through this screen of metaphors.”¹⁴⁵

As we view the Internet through the morass of metaphors that have grown up around it, our perception and understanding of the underlying technology is inevitably affected.¹⁴⁶ Take, for example, the term “cyberspace.”

In his novel *Neuromancer*, William Gibson uses “cyberspace” to describe “a futuristic information environment in which actual and artificial intelligence are indistinguishable, and human organisms can be wired to hardware that enables the organisms to access and communicate directly with one another.”¹⁴⁷ The cyberspace metaphor suggests a

142. Maureen O'Rourke, *Fencing Cyberspace: Drawing Borders in a Virtual World*, 82 MINN. L. REV. 609, 623 n.56 (1998).

143. A bookmark is a link stored in a Web browser for future reference. The Webopedia definition of a bookmark notes, “[n]early all Web browsers support a bookmarking feature that lets you save the address (URL) of a Web page so that you can easily re-visit the page at a later time.” Webopedia, What is bookmark?, at <http://www.webopedia.com/TERM/B/bookmark.html> (last visited Mar. 31, 2004).

144. Webopedia, What is link?, at <http://www.webopedia.com/TERM/L/link.html> (last visited Mar. 31, 2004); Webopedia, What is Web page?, at http://www.webopedia.com/TERM/W/web_page.html (last visited Mar. 31, 2004); Webopedia, What is cookie?, at <http://www.webopedia.com/TERM/C/cookie.html> (last visited Mar. 31, 2004).

145. Raymond Gozzi, Jr., *Metaphors Converging on the Internet*, 54 ETC: A REVIEW OF GENERAL SEMANTICS 479, 480 (1997).

146. *Id.* at 481–82 (“[T]he mail metaphor hides some aspects of what is new in this process. . . . [It] can provide the worst of both oral and print worlds.”).

147. Cumbow, *supra* note 55, at 667; NEUROMANCER, *supra* note 34, at 51.

definable, albeit vast, physical location. Thus, for example, cyberspace has been called the “village green” for the entire world.¹⁴⁸

Policymakers and others in the legal arena may have motivations other than thrilling science fiction audiences in the metaphors they propound. In his 1998 article, analyzing the “information superhighway” metaphor,¹⁴⁹ Clay Calvert argues that this metaphor “[was] a strategically chosen rhetorical device employed by President Bill Clinton and Vice President Gore to frame debate about Internet and telecommunications regulation, to implicitly suggest that particular legal choices [were] more viable—and valid—than others, and to guide the future of law” regarding the Internet.¹⁵⁰ “That, after all, is the power of a metaphor – ‘it colors and controls our subsequent thinking about its subject.’”¹⁵¹

Dan Hunter’s 2003 article further suggests that the growing phenomenon of the use of the “cyberspace as place” metaphor by courts has been used to justify the application of traditional laws governing real property to the Internet.¹⁵² Despite the myriad of metaphors for the Internet suggesting locale,¹⁵³ the Internet is not a “place,” but a medium. The term “Internet” identifies one means by which a computer communicates and exchanges information with others:

This information exchange does not occur in some mythic realm called “cyberspace”; nor, as some maintain, in an artificial existence

148. Steve Russell, *The X-On Congress: Indecent Comment on an Indecent Subject*, THE AM. REP., Feb. 8, 1996, at http://www.eff.org/Legal/Cases/Am_Reporter_v_DoJ/020896.article. Russell suggests that cyberspace deserves the First Amendment protection afforded the traditional village green, but that the essential distinctions between cyberspace and traditional media, e.g., the lack of time and “place,” mean that the same analysis applied to set limits on programming broadcast during prime time or to require that shop owners place certain magazines in a white wrapper simply does not fit. *Id.*

149. Calvert, *supra* note 76, at 543.

“[I]nformation superhighway” embraces a distinctly commerce-based, marketplace model of speech regulation. In fact, metaphor meets metaphor when the information superhighway serves the marketplace of ideas. The emphasis of the superhighway metaphor is on the speed and quantity of goods—information—transmitted, not the quality of content of those goods or the ability of speech to sustain extant communities and cultures.

Id. The Internet’s nineteenth-century precursor, the telegraph, was referred to as the “highway of thought.” TOM STANDAGE, *THE VICTORIAN INTERNET: THE REMARKABLE STORY OF THE TELEGRAPH AND THE NINETEENTH CENTURY’S ONLINE PIONEERS* viii (1999).

The Fourth Circuit relied on the following analogy to explain the term “bandwidth”: “If you think of the Internet as the Information Superhighway, then think of bandwidth as how many lanes of traffic it can handle.” *ALS Scan, Inc. v. Digital Serv. Consultants, Inc.*, 293 F.3d 707, 709 n.1 (4th Cir. 2002).

150. Calvert, *supra* note 76, at 543.

151. *Id.* (quoting Steven L. Winter, *The Metaphor of Standing and the Problem of Self-Governance*, 40 STAN. L. REV. 1371, 1383 (1988)).

152. Dan Hunter, *supra* note 76. See also Mark A. Lemley, *Place and Cyberspace*, 91 CAL. L. REV. 521 (2003).

153. Despite the repudiation of the view of cyberspace as a place in the debate concerning self-regulation of the Internet, practitioners, judges, and legislators clearly continue to give credence to the metaphor, as demonstrated by the many analogies courts draw between the Internet and physical phenomena and the recent application of principles such as “trespass to chattel,” to the Internet. See Hunter, *supra* note 76, at 452–58; see also Blavin & Cohen, *supra* note 8, at 268 (examining three particular metaphors applied to the Internet: the information superhighway, cyberspace, and the Internet as “real” space).

known as “virtual reality.” It occurs in the same familiar earthbound social context as do the exchange of mail, radio and television signals, and phone calls. . . .

. . . The digital exchange does not occur in some “other place,” any more than a telephone call between people in two different parts of the world can be said to escape real world law (and jurisdiction) altogether.¹⁵⁴

Just as the Internet is not a place, but a medium, the World Wide Web and electronic mail similarly are not “parts” of the Internet, but rather different ways of using it.

Use of the word “frontier” to describe the Internet, as in, for example, the “Electronic Frontier Foundation,”¹⁵⁵ is appealing to some because of the analogy to the old American West.¹⁵⁶ However, this metaphor is only meaningful if one accepts the proposition that the Internet itself, the “electronic frontier,” is a place, instead of what it really is: “a new, technologically enhanced way of performing very old tasks.”¹⁵⁷ Those tasks are still subject to fundamental principles governing behavior. “The rules may have to be refined, redefined, and applied in new ways,” but there may not be a need to “throw out the baby of law with the bathwater of outdated technology. . . .”¹⁵⁸

Other metaphors used to describe the Internet also cast it as a place. For example, many terms and phrases created by “netizens” suggest movement and destination on the Internet. “[P]eople have embraced the idea of ‘surfing’ the net, ‘visiting’ a Web ‘site,’ or ‘going to’ a bulletin board or ‘chat room.’”¹⁵⁹ This imagery necessarily impacts legal reasoning regarding the technology. For example, when the idea of “visiting” a Web site is taken literally, then the idea that the visitor establishes presence comes to mind.

As Robert Cumbow cautions, however, “[o]nce we remind ourselves that [the Internet] is simply a medium for the transfer of information between real human beings in real jurisdictions with real relationships governed by real laws,”¹⁶⁰ we take a giant step forward in comprehending the truth behind the metaphors.¹⁶¹

154. Cumbow, *supra* note 55, at 667–68.

155. The Electronic Frontier Foundation (“EFF”) is self-described as “a nonprofit group of passionate people — lawyers, volunteers, and visionaries — working to protect your digital rights.” Electronic Frontier Foundation, at <http://www.eff.org/> (last visited Mar. 12, 2004).

156. See generally Jonathan J. Rusch, *Cyberspace and the “Devil’s Hatband,”* 24 SEATTLE U. L. REV. 577 (2000); Alfred C. Yen, *Western Frontier or Feudal Society?: Metaphors and Perceptions of Cyberspace*, 17 BERKELEY TECH. L.J. 1207 (2002).

157. Cumbow, *supra* note 55, at 668.

158. *Id.* at 668.

159. *Id.* at 669.

160. *Id.* at 671 (explaining why a copyright-free Internet is absurd).

161. Calvert suggests that “[a]n alternative to framing questions of legal regulation in terms of economics, commerce, and the marketplace is a cultural model for telecommunications regulation which emphasizes the maintenance and transformation of currently existing communities and cultures.” Calvert, *supra* note 76, at 543. Like the author of this Article, Calvert also considers the

If instead, these metaphors are “held out as the basis for an overhaul of our law of intellectual property, then [these] colorful expressions turn dark and dangerous.”¹⁶² For example, according to Cumbow, those “who make the claim that the law of copyright ‘will not work in cyberspace’ have allowed their thinking to become muddled by treating figures of speech as if they were literal truth.”¹⁶³

Similarly, Hunter recently concluded: “Thinking of cyberspace as a place has led judges, legislators, and legal scholars to apply physical assumptions about property in this new, abstract space This has led to a series of cases and statutes that enshrine the idea of property interests in cyberspace.”¹⁶⁴

In light of the role of precedent in preserving the metaphors and analogies initially applied to new technologies, it is instructive to consider metaphors associated with the fledgling Internet technology. Some of the earliest judicial analogies applied to the Internet were introduced by the district court opinion in *ACLU*.¹⁶⁵ The court concluded, for example, that e-mail is “comparable in principle to sending a first class letter.”¹⁶⁶ In 1996, one district court cited the work of Lance Rose¹⁶⁷ to conclude:

The Internet can be described by a number of different metaphors, all fitting for different features and services that it provides. For example, the Internet resembles a highway, consisting of many streets leading to places where a user can find information. The metaphor of the Internet as a shopping mall or supermarket, on the other hand, aptly describes the Internet as a place where the user can shop for goods, information, and services. Finally, the Internet also can be viewed as a telephone system for computers by which data bases [sic] of information can be

possibility of doing away with metaphor altogether: “Another alternative is simply to go metaphor-less in cyberspace, an option that does not narrow our scope of thinking about emerging telecommunications technologies and the Internet.” *Id.*

One suggestion from an information sciences postdoctoral research associate shifts the focus from the mechanical aspects of the Web to its organic nature:

It may be more productive to view the Web as an *organic* entity (e.g., cyberspace is like: a community, a global brain, a town common). An organic model would cause those who map metaphors to shift their paradigm so as to view cyberspace as a place where a society of people exist—a community is developing, and not as a piece of machinery—a mere technological artifact. An appropriate organic model may be one in which cyberspace is viewed in the same matter the *town commons* of 200 years were viewed—a commonly shared community resource.

Reilly, *supra* note 122, at 580.

162. Cumbow, *supra* note 55, at 669.

163. *Id.* at 666.

164. Hunter, *supra* note 76, at 443. Hunter warns that “the cyberspace as place metaphor leads to undesirable private control of the previously commons-like Internet and the emergence of a digital anticommons.” *Id.* at 442.

165. *ACLU v. Reno*, 929 F. Supp. 824 (E.D. Pa. 1996).

166. *Id.* at 834.

167. See LANCE ROSE, *NETLAW* 14, 23, 58, 124 (1995), cited in *EDIAS Software Int’l, L.L.C. v. BASIS Int’l Ltd.*, 947 F. Supp. 413, 419 (D. Ariz. 1996).

downloaded to the user, as if all the information existed in the user's computer's disc drive.

The highway metaphor highlights the expansiveness of the Internet—the ability for a user to reach another person or database instantly despite great physical distances. The shopping mall metaphor reveals the newly developed commercial feature of the Internet as a place to go to purchase needed items or services. Finally, the Internet as a telephone line describes the technology that allows people and computers to “talk” to each other and access information.¹⁶⁸

A New York district court found that the Internet “can be seen as its own thriving city, where citizens meet to exchange thoughts and ideas, where merchants buy and sell their wares, and where visitors take virtual tours of entire cities and buildings such as the White House and the Louvre.”¹⁶⁹

An article by the Practising Law Institute summarized several Internet-related analogies found in case law analyzing Internet jurisdiction.¹⁷⁰ First, despite the many distinctions between e-mail and other means of communication, courts appear willing to treat e-mail “like phone calls or surface mail.”¹⁷¹ Second, “[o]n-line distribution of software, information, and other electronic ‘goods’ from [or to] the forum state [have been] treated like physical goods being distributed from [or to] that state.”¹⁷² Third, “[n]ationally accessible advertisements on the Internet are likely to be treated like national print or broadcast advertisements,” or toll-free telephone numbers.¹⁷³ Fourth, “[a]n electronic ‘point and click contract’ sent to the forum state via the Internet is [treated as] analogous to a paper contract sent to that state.”¹⁷⁴

Whatever the metaphor chosen for this new technology,¹⁷⁵ we must be careful not to let it frame our thinking too narrowly, and place “metaphorical blinders”¹⁷⁶ on our eyes to the potential benefits, as well as potential harms, of the Internet. Analogizing e-mail to a telephone call

168. *EDIAS Software Int'l*, 947 F. Supp. at 419 (internal citations omitted).

169. *Playboy Enters., Inc. v. Chuckleberry Publ'g, Inc.*, 939 F. Supp. 1032, 1037 (S.D.N.Y. 1996) (holding that Internet use constitutes a distribution within the United States).

170. Dale M. Cendali, *Personal Jurisdiction and the Internet*, 564 PLI/PAT 79, 83–86 (1999).

171. *Id.* at 83.

172. *Id.* at 84.

173. *Id.* at 85.

174. *Id.*

175. One further example to consider is Internet addresses as telephone numbers. *See, e.g.*, *Reno v. ACLU*, 521 U.S. 844, 852 (1997) (quoting *ACLU v. Reno*, 929 F. Supp. 824, 836 (1996)) (Internet alphanumeric addresses are “rather like a telephone number.”); *Nat'l A-1 Adver., Inc. v. Network Solutions, Inc.*, 121 F. Supp. 2d 156, 159 (D.N.H. 2000) (“IP addresses function much like Social Security numbers or telephone numbers: each IP address is unique and corresponds to a specific entity connected to the Internet.”).

176. Calvert, *supra* note 76, at 552. Calvert complains that the “[a]doption of the information superhighway metaphor [limits] our perspective of how to regulate these new and changing...” communications technologies. *Id.* “It places metaphorical blinders on the eyes of those charged with creating regulations to guide the future of the development of these technologies.” *Id.*

should not lead courts to overlook questions such as whether traits like the point-to-point, generally evanescent nature of telephone calls is substantively different from the commonly “broadcast,” and often semi-permanent nature of e-mail for jurisdictional purposes.¹⁷⁷ Analogizing the online distribution of goods to the physical distribution of goods begs the question of whether the sending of electronic bytes should have the same jurisdictional significance as the sending of physical goods. Courts must consider whether differences in the ways in which one accesses the Web versus how one may access an ad in a magazine should lead to different treatment in jurisdictional jurisprudence (e.g., consider the phenomenon of pop-up ads which pop up in a separate window unbidden on the screen). Before grounding jurisdiction on an electronic “point and click contract” sent to the forum state via the Internet as analogous to a paper contract sent to that state, courts should consider whether the two are sufficiently similar to lead to this result.

One non-judicial example of the impact of the adoption of a powerful metaphor for the Internet may be found in former President Clinton’s 1997 State of the Union Address, in which he called access to the Internet “the modern birthright of every citizen.”¹⁷⁸ Setting education as foremost on his agenda, Clinton announced four educational goals for his administration: “Every 8-year-old must be able to read; every 12-year-old must be able to log on to the Internet; every 18-year-old must be able to go to college; and every adult American must be able to keep on learning for a lifetime.”¹⁷⁹

What metaphor lies beneath this priority set by Clinton? In addition to being a “birthright,” Clinton considered the Internet “our new town square,” and harangued that this powerful force of technology must be harnessed to benefit all Americans: “a computer in every home, a teacher of all subjects, a connection to all cultures, this will no longer be a dream, but a necessity. And over the next decade, that must be our goal.”¹⁸⁰ However, the sense of awe of the technology conveyed by Clinton¹⁸¹ and his evident blanket acceptance of the Internet as a limitless

177. The e-mail/regular mail analogy is similarly flawed. The court in *American Libraries Ass’n v. Pataki* noted several important distinctions between these methods of communications:

First, the sender directs his message to a logical rather than geographic address, and therefore need not know the location of his correspondent in real space. Second, most programs provide for a ‘reply’ option which enables the recipient to respond to the sender’s message simply by clicking on a button; the recipient will therefore not even need to type in the sender’s e-mail address. [Furthermore], [w]hile first-class letters are sealed, e-mail communications are more easily intercepted.

Am. Libraries Ass’n v. Pataki, 969 F. Supp. 160, 165 (S.D.N.Y. 1997).

178. William J. Clinton, Address Before a Joint Session of the Congress on the State of the Union, ¶ 33 (Feb. 4, 1997), available at http://www.c-span.org/executive/transcript.asp?cat=current_event&code=bush_admin&year=1997.

179. *Id.* ¶ 17 (emphasis added).

180. *Id.* ¶ 35.

181. *Id.* ¶ 33 (“To prepare America for the 21st century, we must harness the powerful forces of science and technology to benefit all Americans. This is the first State of the Union carried live in video over the Internet.”).

conduit for information belie a lack of a bona fide understanding of how the Internet actually operates.¹⁸²

A metaphor, as a powerful influence on our thinking, reasoning, and actions, is clearly worthy of close examination in the context of judicial decision making.

2. *The Battle in Court*

The cases discussed below demonstrate the impact of courts' choices among the various attractive analogies litigants offer to help elucidate emerging technologies such as the Internet and, in the process, to convince the court that their proffered analogy compels the court to rule in their favor.

The New York district court deciding *American Libraries Association v. Pataki* expressly acknowledged both the prevalence and importance of the judicial tendency to choose an analogy for new technology:¹⁸³

Not surprisingly, much of the legal analysis of Internet-related issues has focused on seeking a familiar analogy for the unfamiliar. Commentators reporting on the recent oral argument before the

182. One writer has noted that most of the technological marvels President Clinton ascribes to the Internet were already achievable through prior existing technologies. See David Gold, *Clinton on the Internet: Internet Myths in Bill Clinton's State of the Union Address*, in *YOU CAN'T SURF A SINE WAVE: METAPHORS AND THE FUTURE OF THE INTERNET* (last updated May 1, 1997), at <http://ccwf.cc.utexas.edu/~dgold/metaphor.project/clinton.html>. For example, the State of the Union Address was carried live via television for years prior to 1997, and far more American homes had televisions than computers and network connectivity at the time. *Id.* While President Clinton did recognize in his 1998 State of the Union Address that the Internet is not limitless, his statements evinced less than a clear understanding of the technology. See William J. Clinton, Address Before a Joint Session of the Congress on the State of Union, ¶ 67 (Jan. 27, 1998), available at http://www.c-span.org/executive/transcript.asp?cat=current_event&code=bush_admin&year=1998 ("I ask Congress to step up support for building the next-generation Internet. It's getting kind of clogged, you know, and the next-generation Internet will operate at speeds up to 1,000 times faster than today.")

However, by 2000, Clinton's State of the Union Address moved beyond rhetoric to reflect a deeper understanding of the working of the Internet, acknowledging, for example, that to reach his educational goal of Internet connectivity in every classroom the government first had to take care of infrastructural shortcomings. William J. Clinton, Address Before a Joint Session of the Congress on the State of Union, ¶ 21 (Jan. 27, 2000), available at http://www.c-span.org/executive/transcript.asp?cat=current_event&code=bush_admin&year=2000.

In 1994, only 3 percent of our classrooms were connected. Today... more than half of them are. And 90 percent of our schools have at least one Internet connection. But we cannot finish the job when a third of all our schools are in serious disrepair. Many of them have walls and wires so old, they're too old for the Internet. So tonight, I propose to help 5,000 schools a year make immediate and urgent repairs and, again, to help build or modernize 6,000 more, to get students out of trailers and into high-tech classrooms.

Id. He further acknowledged that access to the Internet alone is valueless without proper training. See *id.* ¶ 58.

Connecting classrooms and libraries to the Internet is crucial, but it's just a start. My budget ensures that all new teachers are trained to teach 21st century skills, and it creates technology centers in 1,000 communities to serve adults. This spring, I'll invite high-tech leaders to join me on another new markets tour, to close the digital divide and open opportunity for our people.

Id.

183. *Am. Libraries Ass'n v. Pataki*, 969 F. Supp. 160 (S.D.N.Y. 1997).

Supreme Court of the United States, which is considering a First Amendment challenge to the Communications Decency Act, noted that the Justices seemed bent on finding the appropriate analogy which would tie the Internet to some existing line of First Amendment jurisprudence: is the Internet more like a television? a radio? a newspaper? a 900-line? a village green?¹⁸⁴

The *American Libraries Association* court determined that “[t]his case, too, depends on the appropriate analogy.”¹⁸⁵ The plaintiffs in this suit filed an action challenging New York Penal Law § 235.21(3).¹⁸⁶ The statute made it a crime for an individual,

[k]nowing the character and content of the communication which, in whole or in part, depicts actual or simulated nudity, sexual conduct or sado-masochistic abuse, and which is harmful to minors, [to] intentionally use . . . any computer communication system allowing the input, output, examination or transfer, of computer data or computer programs from one computer to another, to initiate or engage in such communication with a person who is a minor.”¹⁸⁷

Plaintiffs asserted that the statute violated the Commerce Clause because it sought to regulate communications occurring wholly outside New York, imposed a burden on interstate commerce disproportionate to the local benefits it was likely to engender, and subjected plaintiffs, as well as other Internet users, to inconsistent state obligations.¹⁸⁸

The district court focused on determining the appropriate analogy to apply to Internet communications. It concluded that the Internet is analogous to a highway or railroad,¹⁸⁹ and consequently reasoned, “[t]his determination means that the phrase ‘information superhighway’ is more than a mere buzzword; it has legal significance, because the similarity between the Internet and more traditional instruments of interstate commerce leads to analysis under the Commerce Clause.”¹⁹⁰ Like “railroads, trucks, and highways,” the Internet “serves as a conduit for transporting . . . goods.”¹⁹¹ Rejecting the State’s argument that the New York statute was aimed solely at intrastate conduct, the court reached the “inescapable conclusion” that the Internet “represents an instrument of interstate commerce,” and agreed that the statute violated the Commerce Clause by subjecting interstate use of the Internet to inconsistent regulations.¹⁹²

184. *Id.* at 161 (citing as an example, Linda Greenhouse, *What Level of Protection for Internet Speech? High Court Weighs Decency-Act Case*, N.Y. TIMES, Mar. 24, 1997, at D5).

185. *Id.*

186. *Id.*

187. N.Y. PENAL LAW § 235.21(3) (2000).

188. *Am. Libraries Ass’n*, 969 F. Supp. at 167.

189. *Id.* at 161.

190. *Id.*

191. *Id.* at 173.

192. *Id.* at 167, 173. Notably, the district court in this case cites extensively to the findings of fact

Several other recent cases illustrate the battle of the analogies in the Internet arena. In *Commonwealth v. Proetto*,¹⁹³ the Pennsylvania Superior Court concluded that e-mails and Internet chatroom conversations are more analogous to answering machine tapes than to telephone conversations. This conclusion was critical to its determination of whether e-mail and chat room communications fall within the mutual consent provision of Pennsylvania's Wiretapping and Electronic Surveillance Control Act.

The defendant in this action, Robert Proetto, was arrested for criminal solicitation, dissemination of obscene materials, and corruption of minors.¹⁹⁴ The charges stemmed from his communications with a fifteen-year-old girl over the Internet.¹⁹⁵ The girl saved Proetto's sexually explicit e-mails and Internet chat messages and turned them over to the police.¹⁹⁶ Proetto sought to suppress the communications under Pennsylvania's Wiretapping and Electronic Surveillance Control Act.¹⁹⁷

Section 5703 of the Act provides:

Except as otherwise provided in this chapter, a person is guilty of a felony of the third degree if he:

(1) intentionally intercepts, endeavors to intercept, or procures any other person to intercept or endeavor to intercept any wire, electronic or oral communication;

(2) intentionally discloses or endeavors to disclose to any other person the contents of any wire, electronic or oral communication, or evidence derived therefrom, knowing or having reason to know that the information was obtained through the interception of a wire, electronic or oral communication; or

(3) intentionally uses or endeavors to use the contents of any wire, electronic or oral communication, or evidence derived therefrom, knowing or having reason to know, that the information was obtained through the interception of a wire, electronic or oral communication.¹⁹⁸

Section 5704 of the Act provides:

It shall not be unlawful and no prior court approval shall be required under this chapter for: . . .

(4) A person, to *intercept* a wire, electronic or oral communication, where all parties to the communication have given prior consent to such interception.¹⁹⁹

describing the Internet made by the district court in *Reno*. *Id.* at 164-67.

193. *Commonwealth v. Proetto*, 771 A.2d 823, 830 (Pa. Super. Ct. 2001).

194. *Id.* at 826.

195. *Id.*

196. *Id.*

197. *Id.* at 827.

198. 18 PA. CONS. STAT. ANN. § 5703 (West Supp. 2003-2004).

199. 18 PA. CONS. STAT. ANN. § 5704(4) (emphasis added).

The Act defines “intercept” as “[a]ural or other acquisition of the contents of any wire, electronic or oral communication through the use of any electronic, mechanical or other device. The term shall include the point at which the contents of the communication are monitored by investigative or law enforcement officers.”²⁰⁰

Because Proetto had not consented to provide the messages to police, the court was first required to determine whether the e-mail and chatroom communications were “intercepted” by police within the meaning of § 1503 and thus, whether the Act barred their admission in the defendant’s trial. The court concluded that because the acquisition of the communications by the police was not contemporaneous with their transmission by the defendant, there was no interception.²⁰¹

More significantly, the court went on to find that, even if the messages were “intercepted” within the meaning of the Act, the e-mail and chatroom communications fell within the mutual consent provision of § 5704(4).²⁰² Rejecting the defendant’s suggestion that an exchange over the Internet is analogous to a telephone conversation, the court instead adopted that state’s proffered analogy to telephone answering machines. The court then relied upon its holding in an earlier opinion that leaving an answering machine message constitutes implied consent to the taping of that message:

This situation is unlike one in which a party is engaging in a conversation over the telephone. While engaging in a conversation over the telephone, a party would have no reason to believe that the other party was taping the conversation. Any reasonably intelligent person, savvy enough to be using the Internet, however, would be aware of the fact that messages are received in a recorded format, by their very nature, and can be downloaded or printed by the party receiving the message. By the very act of sending a communication over the Internet, the party expressly consents to the recording of the message.²⁰³

The court’s finding that “[s]ending an e-mail or chat-room communication is analogous to leaving a message on an answering machine,”²⁰⁴ thus meant the defendant impliedly consented to the recording of the communications at issue.

In *Mainstream Loudoun v. Board of Trustees of the Loudoun County Library*,²⁰⁵ patrons of a county library sued the county library board of trustees under 42 U.S.C. § 1983, alleging that the board’s policy calling for the use of site-blocking software on library computers with Internet access violated the First Amendment. No cases directly addressed this issue. However, the parties agreed that the most analogous authority on this issue was *Board of Education v. Pico*,²⁰⁶ in

200. *Id.* at § 5702.

201. *Proetto*, 771 A.2d at 828–29.

202. *Id.* at 829.

203. *Id.*

which the Supreme Court reviewed the decision of a local board of education to remove certain books from a high school library based on the board's belief that the books were "anti-American, anti-Christian, anti-Sem[i]tic, and just plain filthy."²⁰⁷

In *Pico*, the Second Circuit reversed the district court's grant of summary judgment to the school board on plaintiff's First Amendment claim.²⁰⁸ A sharply divided Supreme Court voted to affirm the Court of Appeal's decision to remand the case for a determination of the school board's motives. However, the Court did not render a majority opinion. In a plurality opinion joined by three Justices, Justice Brennan held that students' First Amendment rights necessarily limit a board of education's attempt to remove materials from a high school library on the basis of their content.²⁰⁹ Justice Brennan reasoned that the right to receive information follows from the right to speak and that "the State may not, consistently with the spirit of the First Amendment, contract the spectrum of available knowledge."²¹⁰ He held that the school board members could not remove books "simply because they dislike the ideas contained [in them]," thereby "prescrib[ing] what shall be orthodox in politics, nationalism, religion, or other matters of opinion;" yet, the board may remove books for reasons of educational suitability, for example pervasive vulgarity.²¹¹

While the parties in *Mainstream Loudoun* agreed that *Pico* applied if the library filtering at issue was analogous to the removal of books from a library in *Pico*, they took opposing views regarding the appropriateness of the analogy. The resolution of this issue thus turned on the choice of metaphor to use in analyzing Internet filtering.

Defendants argued that the *Pico* plurality opinion was inapplicable to the case because it addressed only decisions to *remove* materials from libraries and specifically declined to address library decisions to *acquire* materials.²¹² They likened the Internet to a "vast Interlibrary Loan system" and asserted that "restricting Internet access to selected materials is merely a decision not to acquire such materials rather than a decision to remove them from a library's collection."²¹³ Also, defendants

204. *Id.* at 830.

205. *Mainstream Loudoun v. Bd. of Trs. of the Loudoun County Library*, 2 F. Supp. 2d 783, 787 (E.D. Va. 1998).

206. *Bd. of Educ. v. Pico*, 457 U.S. 853 (1982) (plurality opinion).

207. *Id.* at 857.

208. *Pico v. Bd. of Educ.*, 638 F.2d 404, 436 (2d Cir. 1980).

209. *See Pico*, 457 U.S. at 864-69 (plurality opinion) (Brennan, J.).

210. *Id.* at 866 (quoting *Griswold v. Connecticut*, 381 U.S. 479 (1965)).

211. *Id.* at 871-72 (quoting *W. Va. Bd. of Educ. v. Barnette*, 319 U.S. 624, 642 (1943)) (internal quotation marks omitted).

212. *Mainstream Loudoun v. Bd. of Trs. of the Loudon County Library*, 2 F. Supp. 2d 783, 793 (E.D. Va. 1998).

213. *Id.*

asserted that such an acquisition decision was outside the scope of the *Pico* plurality's holding.²¹⁴

For their part, plaintiffs argued that unlike a library's collection of individual books, the Internet is a "single, integrated system."²¹⁵ As they explained, "[t]hrough information on the Web is contained in individual computers, the fact that each of these computers is connected to the Internet through [World Wide Web] protocols allows all of the information to become part of a single body of knowledge."²¹⁶ "Accordingly, plaintiffs analogize[d] the Internet to a set of encyclopedias, and the library board's enactment of the [policy to filter Internet access] to a decision to 'black out' selected articles considered inappropriate for adult and juvenile patrons."²¹⁷

Which analogy did the district court find most convincing? It agreed with the plaintiffs that the Internet is like a collection of encyclopedias from which defendants had redacted portions that they deemed unfit for library patrons.²¹⁸ Unlike a book purchase or loan, "no appreciable expenditure of library time or resources is required to make a particular Internet publication available to a library patron. In contrast, a library must actually expend resources to restrict Internet access to a publication that is otherwise immediately available."²¹⁹ "In effect, by purchasing one such publication, the library has purchased them all."²²⁰ The court concluded that the library board's action was more appropriately characterized as a removal decision and, therefore, the *Pico* plurality applied to the library board's decision to filter Internet access.²²¹

Although *Pico* only addressed whether the First Amendment limited the discretion of school libraries to place content-based restrictions on constitutionally protected materials within their collections, the court concluded that it extends to public libraries.²²² Moreover, it concluded that the limitation on discretion by public libraries is greater than on school libraries' discretion because adults are patrons in public libraries.²²³ Since adults are deemed mature enough to be entitled to access all categories of speech, the court found:

[T]he unique advantages of Internet speech eliminate any resource-related rationale libraries might otherwise have for engaging in content-based discrimination. The Supreme Court has analogized the Internet to a "vast library including millions of readily available and indexed publications," the content of which "is as diverse as

214. *Id.*

215. *Id.*

216. *Id.* (internal quotation marks omitted).

217. *Id.*

218. *Id.* at 793-94

219. *Id.* at 793.

220. *Id.* at 794.

221. *Id.*

222. *See id.*

223. *See id.* at 795.

human thought.” *Reno*, 117 S.Ct. at 2335. Unlike more traditional libraries, however, there is no marginal cost associated with acquiring Internet publications. Instead, all, or nearly all, Internet publications are jointly available for a single price. Indeed, it costs a library more to restrict the content of its collection by means of blocking software than it does for the library to offer unrestricted access to all Internet publications. Nor do Internet publications, which exist only in “cyberspace,” take up shelf space or require physical maintenance of any kind. Accordingly, considerations of cost or physical resources cannot justify a public library’s decision to restrict access to Internet materials.²²⁴

The court accordingly held that the library board could not adopt and enforce content-based restrictions on access to protected Internet speech absent a compelling state interest and means narrowly drawn to achieve that end.²²⁵

The foreign defendants in *Playboy Enterprises, Inc. v. Chuckleberry Publishing, Inc.* tried to convince the court that the purchase by U.S. citizens of images from its Web site in Italy was akin to “flying to Italy” to purchase a copy of its magazine.²²⁶ In this case, the publisher of *Playboy* magazine brought an action against the Italian publisher, alleging that its “PLAYMEN” Web site violated the terms of a 1981 injunction barring it from selling or distributing *Playmen* magazine in the United States. The Court concluded that posting images on the Italian Web site, accessible in the United States, constituted a distribution in this country.²²⁷ It found that the clear intent of the injunction was to prohibit Tattilo from selling its magazine to U.S. customers, and that Tattilo knowingly attempted to circumvent the injunction by selling its products over the Internet.²²⁸ The court stated, “Cyberspace is not a ‘safe haven’ from which Tattilo may flout the Court’s [i]njunction.”²²⁹

In a footnote, the district court discussed whether the defendant violated additional provisions of the injunction by using the word “Playmen” in the “title, subtitle or anywhere else on the cover of a male sophisticate magazine.”²³⁰ The central inquiry for this issue was whether the Internet site is analogous to a magazine. If yes, then the court reasoned that its homepage, as the first screen viewed by a user browsing the Web page, “is unquestionably its cover.”²³¹

The court opined that the Internet site did indeed constitute a “magazine,” noting that in Webster’s Dictionary, the word “magazine” had been used at one time in book titles to mean a “storehouse of

224. *Id.*

225. *Id.*

226. *Playboy Enters. v. Chuckleberry Publ’g*, 939 F. Supp. 1032, 1039 (S.D.N.Y. 1996).

227. *Id.* at 1040.

228. *Id.*

229. *Id.*

230. *Id.* at 1040 n.6 (noting that the court need not, and did not, reach this issue).

231. *Id.*

information” on a special topic, equivalent to the contemporary use of “encyclopedia,” and has now taken on the meaning of a periodical containing a collection of articles, stories, pictures, or other features.²³²

As these decisions demonstrate, many of the cases in which courts must determine how to apply established legal principles to new technology turned on whether a particular aspect of the technology is more like one physical phenomenon or another. But, as one writer asks, “[c]an we really figure out how to resolve controversies of this kind by straining for analogies—by fighting the Battle of the Paradigm?”²³³ It has been suggested that, rather than focusing on selection of the “best” metaphor, courts should instead focus on a rational analysis of the competing interests and the effect on the public interest if one side or the other prevails.²³⁴ In fact, it appears, at least to some extent, that courts are doing just that. The court in *American Libraries Association v. Pataki*²³⁵ began its analysis with respect to new technology by fitting it within an established framework, using metaphor or analogy. Perhaps recognizing the limits of reasoning by analogy, that court considered the broader implications of its choice of metaphor.

III. INTERNET JURISDICTION

A. Jurisprudence of Jurisdiction

Why pick an analogy to begin with? To return to the question posed earlier, why shouldn’t courts simply make the effort to understand the technological underpinnings of the Internet and achieve a “metaphor-free” understanding of the technology? This section addresses these questions in one of the few contexts in which courts have begun to establish a body of law applying traditional principles to the Internet: personal jurisdiction based upon contacts in “cyberspace.”

In deciding jurisdictional questions, courts have an analytical framework within which they must work, in the absence of new or directly applicable precedents from higher courts. As a consequence, courts determining jurisdiction based upon Internet contacts (which, at this stage, primarily means district courts) must adopt the framework of *International Shoe v. Washington* and its progeny—minimum contacts,

232. *Id.* (citing WEBSTER’S II NEW RIVERSIDE UNIVERSITY DICTIONARY 714 (994)).

233. Richard H. Stern, *Paradigms lost*, IEEE MICRO Sept.-Oct. 1997, at 3, 4, available at <http://www.law.gwu.edu/facweb/claw/Paradigms.pdf> (last visited Dec. 4, 2003). Stern criticizes courts for focusing on “battles over Internet paradigms” to the “exclusion of the merits of the relative interests at stake. . . .” *Id.* “[T]he public would be better served by a legal system in which the outcome depended on the well-articulated, intrinsic merits of the parties’ respective positions rather than on which party put forward the more exciting paradigm or analogy.” *Id.*

234. *Id.*

235. *Am. Libraries Ass’n v. Pataki*, 969 F. Supp. 160 (S.D.N.Y. 1997).

fair play, substantial justice, and purposeful availment.²³⁶ The unique nature of the Internet has proven to be a challenge for courts attempting to apply traditional jurisdictional principles to this new paradigm.

There are two steps in determining whether a court may exercise jurisdiction over a particular defendant. First, each state has its own long-arm statute establishing when the assertion of personal jurisdiction is appropriate. Some long-arm statutes are co-extensive with the limits of the Due Process Clause. Most, however, enumerate specific grounds for jurisdiction that do not reach the limits of due process. Under most long-arm statutes, a court may exercise general jurisdiction over a non-resident if the non-resident conducts routine, continuous, or systematic business in the forum. Generally, a court may exercise specific jurisdiction over the nonresident (i.e., jurisdiction for causes of action arising out of the defendant's activities in the forum) who either (1) transacts business in the forum; (2) commits tortious acts in the forum; or (3) commits a tortious act outside the forum resulting in an injury within the forum if the non-resident derives some economic benefit from the forum.

Once a court determines that jurisdiction is proper under the applicable state long-arm statute, it must then determine whether the assertion of jurisdiction comports with due process, established by showing (1) that the defendant has constitutionally sufficient minimum contacts with the forum, which generally can be established if the defendant can be said to have purposefully availed itself of the forum through contacts that were more than merely "random," "fortuitous," or "attenuated"; (2) that the plaintiff's claims arose out of those contacts;²³⁷ and (3) that the exercise of jurisdiction will be reasonable, i.e., it must comport with "traditional notions of fair play and substantial justice."²³⁸ The nonresident's contacts with the forum must be such that he "should reasonably anticipate being haled into court there."²³⁹

236. *Int'l Shoe Co. v. Wash.*, 326 U.S. 310 (1940).

237. The cases dealing with Internet contacts typically do not involve the question of general jurisdiction, that is, whether the defendant's contacts with the forum are so "continuous and systematic" so as to establish general jurisdiction. Even the establishment of an active Web site through which customers can order products has been rejected as a sufficient basis for establishing general jurisdiction. *Molnycke Health Care AB v. Dumex Med. Surgical Prods.*, 64 F. Supp. 2d 448, 451 (E.D. Pa. 1999). However, in a number of recent cases involving conduct over the Internet, courts have found that where transactions through Web sites are continuous and systematic, they may provide the basis for general jurisdiction. *See, e.g., Gorman v. Ameritrade Holding Corp.*, 293 F.3d 506, 510 (D.C. Cir. 2002) (observing that "[c]yberspace' . . . is not some mystical incantation capable of warding off the jurisdiction of courts built from bricks and mortar"); *Gator.com Corp. v. L.L. Bean, Inc.*, 341 F.3d 1072, 1076 (9th Cir. 2003).

238. *Int'l Shoe*, 326 U.S. 310, 316 (quoting *Milliken v. Meyer*, 311 U.S. 457, 463 (1940)).

239. *World Wide Volkswagen v. Woodson*, 444 U.S. 286, 297 (1980).

B. Internet Jurisdiction: Development of a Standard?

In early Internet jurisdiction opinions, courts emphasized that they were dealing with a unique phenomenon.²⁴⁰ These courts went about adapting traditional principles of personal jurisdiction by analogizing transactions over the Internet to those carried out through traditional media such as mail and telephone. But the courts' ability to choose an appropriate analogy is necessarily impacted by their understanding of the Internet. As a matter of public policy, that understanding of the Internet should be coupled with an understanding of the implications of particular rulings on the future of the Internet. After all, the evolution of personal jurisdiction from the presence-based rationale of *Pennoyer v. Neff*²⁴¹ to the minimum contacts of *International Shoe Co. v. Washington*²⁴² has been repeatedly justified by the Supreme Court by the changing state of interstate transportation, commerce, and communication in American society.²⁴³ In *World Wide Volkswagen v. Woodson*, the Court acknowledged that the transformation of transportation, commerce, and technology that justified the expansion of jurisdiction had only accelerated since *International Shoe*.²⁴⁴ The rise of the Internet simply hastens this trend.²⁴⁵

The issue, then, is how can courts best apply personal jurisdiction principles to the Internet? A few commentators have suggested that a different standard should be used when analyzing the Internet contacts for jurisdictional purposes,²⁴⁶ or perhaps that new "cyber-jurisdictional courts" should be created. However, thus far, courts continue to apply traditional jurisdictional principles in their analyses of Internet jurisdiction rather than attempting to define a new standard. What has emerged are principles centered around the "active" or "passive" nature of a Web site, principles designed to allow courts to analyze Internet

240. See, e.g., *Bensusan Res. Corp. v. King*, 126 F.3d 25, 27 (2d Cir. 1997) ("[A]ttempting to apply established trademark law in the fast-developing world of the internet is somewhat like trying to board a moving bus. . .").

241. *Pennoyer v. Neff*, 95 U.S. 714 (1877).

242. *Int'l Shoe*, 326 U.S. 310 (1945).

243. See *McGee v. Int'l Life Ins. Co.*, 355 U.S. 220, 223 (1957); *Hanson v. Denckla*, 357 U.S. 235, 250 (1958).

244. *Woodson*, 444 U.S. at 94.

245. The district court in *Gorman* aptly observes:

Just as our traditional notions of personal jurisdiction have proven adaptable to other changes in the national economy, so too are they adaptable to the transformations wrought by the Internet. In the last century, for example, courts held that, depending upon the circumstances, transactions by mail and telephone could be the basis for personal jurisdiction notwithstanding the defendant's lack of physical presence in the forum. There is no logical reason why the same should not be true of transactions accomplished through the use of e-mail or interactive websites. Indeed, application of this precedent is quite natural since much communication over the Internet is still transmitted by ordinary telephone lines.

Gorman v. Ameritrade Holding Corp., 293 F.3d 506, 510–11 (D.C. Cir. 2002).

246. See, e.g., David R. Johnson & David Post, *Law and Borders—The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367 (1996) (stating that cyberspace requires a system of distinct rules that do not rely on geographically defined borders).

activity within the legal precepts they are accustomed to applying. Courts' analyses currently focus on three categories of Internet contacts to determine whether particular Internet activity will satisfy jurisdictional requirements.²⁴⁷ In this "sliding scale" of interactivity analysis (first described in *Zippo v. Zippo Manufacturing*²⁴⁸), the constitutionality of the exercise of personal jurisdiction is related to the level of commercial interactivity on a defendant's Web site.

At one end of the scale, the defendant clearly engages in e-commerce, that is, the defendant does business over the Internet (e.g., enters into contracts with residents of the forum, or maintains an interactive Web site whereby sales are made to forum residents).²⁴⁹ This is termed an "active" Web site. All courts agree that this type of Internet activity satisfies both state long-arm statute requirements and due process requirements, at least for purposes of specific jurisdiction.²⁵⁰ At the other end of the scale lie Web sites where the defendant merely posts information or advertisements on a Web site accessible within the forum.²⁵¹ This is termed a "passive" Web site, viewed by most courts as a contact insufficient, standing alone, to establish jurisdiction.

In the middle of the scale are Web sites where a user can exchange information with a host computer, in which case most courts will examine "the level of interactivity and commercial nature of the exchange of information" to decide whether to exercise jurisdiction.²⁵² For example, a Web site with a few "minimally interactive" features, such as forms that may be printed out but not submitted online, a form through which a user can request more information about a product or service but does not actually permit the user to order it online, or a link by which a user may send e-mail directly to the owner of the Web site, falls in this category. This middle category is very ambiguous; courts have held that Web sites with these features fall in the "passive" category.²⁵³

247. In *Blackburn v. Walker Oriental Rug Galleries*, 999 F. Supp. 636, 638–39 (E.D. Pa. 1998), the district court provides a concise summary of the three categories of Internet contacts courts have formulated in determining whether Web site activity can serve as a basis of jurisdiction.

248. *Zippo v. Zippo Mfg. Co.*, 952 F. Supp. 1119 (W.D. Pa. 1997).

249. *Id.* at 1124.

250. Courts have focused on whether specific jurisdiction exists, i.e., whether the defendant's out-of-state Internet activity was purposefully directed toward the forum and caused injury within the forum, such that exercise of jurisdiction would "comport with fair play and substantial justice." The author is not aware of any court that has found general jurisdiction based on Internet activity, i.e. they have not found that it constitutes "continuous and systematic" contact with the state that would support jurisdiction over conduct unrelated to the Internet activity.

251. *Zippo Mfg. Co.*, 952 F. Supp. at 1124.

252. *Id.*

253. The sliding scale approach may yield more than three categories of Web sites. In a *New York Law Journal* article, Eric Schneiderman and Ronald Kornreich proposed a six-level hierarchy, in which three levels would result in specific jurisdiction. Eric Schneiderman & Ronald Kornreich, *Personal Jurisdiction and Internet Commerce*, N.Y.L.J., June 4, 1997, at 1, 4–5, 31. The six levels are: (1) site allows actual financial transactions over the Internet; (2) site allows purchase and downloading of software via the Internet; (3) site allows purchase information in the form of Web pages (Web magazine or subscriber service); (4) site solicits and obtains user information, which can be used to customize the site's Web pages for individual users; (5) site is one through which the viewer can

Courts also have considered the “quality and quantity of contacts”²⁵⁴ with the forum. For example, one court gave weight to the continued access to a Web page by residents in the forum state from the beginning.²⁵⁵ In addition, courts consider evidence of whether the Web site targets the forum. The district courts analyzing Internet contacts initially split regarding what Internet activity constitutes sufficient minimum contacts. Specifically, they disagreed as to whether a court may assert specific personal jurisdiction based upon a *passive* Web site.²⁵⁶ The split in opinion on this issue fell into two camps: *Inset Systems, Inc. v. Instruction Set, Inc.*,²⁵⁷ and *Bensusan Restaurant Co. v. King*.²⁵⁸ Taking what clearly has become a minority position, the 1996 Connecticut district court in *Inset* concluded that Internet presence alone was sufficient to ground jurisdiction.²⁵⁹ A 1999 district court opinion went so far as to say that the *Inset* view of Internet personal jurisdiction is not only the minority view, but also “might be considered ancient in light of the meteoric growth of the Internet and the rapid progress of jurisprudence in this area of the law.”²⁶⁰ Although this case has been heavily criticized, it has yet to be overturned.

Inset was a trademark infringement action. The Connecticut plaintiff registered the trademark “inset” in 1985. Ten years later, when the plaintiff attempted to register the domain name “inset.com,” it learned that the Massachusetts defendant had already obtained “inset.com” as its domain address. The defendant also used the telephone number 1-800-US-INSET in advertisements. The plaintiff filed this action in Connecticut and the defendant moved to dismiss the action for lack of personal jurisdiction and improper venue.²⁶¹ The court noted that Connecticut’s long-arm statute had been interpreted to support jurisdiction where six ads were placed over a six-month period in a newspaper whose circulation included Connecticut.²⁶² The court found

browse; (6) site consists of static home pages with no interactive qualities and no browsing capabilities. *Id.* The authors maintain that the first three levels provide grounds for personal jurisdiction if accessed from the state in question, while the latter three do not. *Id.*

254. *S. Morantz, Inc. v. Hang & Shine Ultrasonics, Inc.*, 79 F. Supp. 2d 537, 540 (E.D. Pa. 1999).

255. *Heroes, Inc. v. Heroes Found.*, 958 F. Supp. 1, 5 (D.D.C. 1996) (finding passive Web site soliciting donations with toll-free number and in the district’s local newspaper sufficient minimum contacts).

256. While it will not resolve all of the differences between these courts, a better understanding of the technology would (1) clarify where differences should exist due to differences in long-arm statutes, and (2) eliminate differences based on a misunderstanding of Internet technology. Generally, however, as Lemley has noted, “[p]ersonal jurisdiction is one area where courts have demonstrated [the] agility” to modify the existing framework designed for the physical world to take into account the peculiarities of the Internet. Lemley, *supra* note 151, at 529.

257. *Inset Sys. Inc. v. Instruction Set, Inc.*, 937 F. Supp. 161 (D. Conn. 1996).

258. *Bensusan Rest. Co. v. King*, 126 F.3d 25 (2d Cir. 1997).

259. *Inset Sys. Inc.*, 937 F. Supp. at 162.

260. *S. Morantz, Inc. v. Hang & Shine Ultrasonics, Inc.*, 79 F. Supp. 2d 537, 540 n.3 (E.D. Pa. 1999).

261. *Inset Sys. Inc.*, 937 F. Supp. at 162.

262. *Id.* at 164.

that to have been a sufficiently repetitious pattern to satisfy the Connecticut long-arm statute regarding actions arising out of “doing business” in the state.²⁶³

Connecticut’s long-arm statute authorizes its courts to exercise jurisdiction over foreign corporations if the cause of action arises “out of any business solicited in [Connecticut] . . . by mail or otherwise if the corporation has repeatedly so solicited business, whether the orders or offers relating thereto were accepted within or without the state.”²⁶⁴ The plaintiff argued that the defendant had repeatedly solicited business within Connecticut via its Internet advertisement and toll-free number and therefore met the requirements of the statute. The court agreed and found it significant that “[u]nlike television and radio, in which advertisements are broadcast at certain times only, or newspapers in which advertisements are often disposed of quickly, advertisements over the Internet are available to Internet users continually, at the stroke of a few keys of a computer.”²⁶⁵ The court further noted that at that time there were “at least 10,000 Internet connected computer users in the state of Connecticut,”²⁶⁶ a number that is probably grossly understated, but which, in any case, held far less relevance than accorded it by the court.

Next, in addressing the minimum contacts requirement of due process, the court found due process was satisfied because the defendant “readily supplied interested potential customers”²⁶⁷ with its Web site and “demonstrated its readiness to initiate telephone solicitation of Connecticut customers.”²⁶⁸ By doing so, the defendant was held to have purposefully availed itself of the privilege of doing business within the state. Observing that, “once posted on the Internet, unlike television and radio advertising, the advertisement is available continuously to any Internet user,” the court concluded that the defendant’s actions constituted purposeful availment.²⁶⁹

Several courts have adopted the reasoning of *Inset* to conclude that the maintenance of a Web site standing alone is sufficient contact with the forum to confer jurisdiction. For example, in *Maritz, Inc. v. Cybergold, Inc.*,²⁷⁰ the court concluded that the defendant’s maintenance of a Web site that had been accessed by Missouri residents was sufficient to satisfy due process requirements. The California defendant in this case had establish “cybergold.com” to advertise its Internet-user mailing

263. *Id.*

264. *Id.* at 163–64, n.2 (quoting Conn. Gen. Stats. § 33-411(c)(2) (1997)).

265. *Id.* at 163.

266. *Id.*

267. *Id.* at 165 (quoting Whelen Eng’g Co. v. Tomar Elecs., Inc., 672 F. Supp. 659, 664 (D. Conn. 1987)).

268. *Id.*

269. *Id.*

270. *Maritz, Inc. v. Cybergold, Inc.*, 947 F. Supp. 1328, 1331–36 (E.D. Mo. 1996).

list service, “Goldmail.”²⁷¹ The plaintiff, owner of the “Goldmail” mark, brought a trademark infringement suit in Missouri.²⁷² The district court cited *Inset* in finding that:

Although Cybergold characterizes its activities as merely maintaining a “passive web site,” its intent is to reach all Internet users regardless of geographic location Through its web site, Cybergold has consciously decided to transmit advertising information to all internet users, knowing that such information will be transmitted globally. Thus, Cybergold’s contacts are of such a quality and nature, albeit a very new quality and nature for personal jurisdiction jurisprudence, that they favor the exercise of personal jurisdiction over the defendant.²⁷³

The court, as a policy matter, was stating that one must either accept national, and, indeed, global jurisdiction, or forego joining the Internet. Notably, the court reached its holding by rejecting analogies to more traditional media that might have led to a more conservative result. It stated:

[B]ecause the internet is an entirely new means of information exchange, analogies to cases involving the use of mail and telephone are less than satisfactory in determining whether defendant has “purposefully availed” itself to this forum. Unlike use of the mail, the Internet, with its electronic mail, is a tremendously more efficient, quicker, and vast means of reaching a global audience. By simply setting up, and posting information at, a website in the form of an advertisement or solicitation, one has done everything necessary to reach the global internet audience.²⁷⁴

Accordingly, the court found “that the nature and quality of contacts provided by the maintenance of a web site on the internet are clearly of a different nature and quality than other means of contact with a forum such as the mass mailing of solicitations into a forum.”²⁷⁵

Other courts, following the pioneering Internet jurisdiction case of *Bensusan Restaurant Corp. v. King*,²⁷⁶ have rejected the idea that simply having a commercial Web site, without more, confers personal jurisdiction.

In *Bensusan*, the defendant, the owner of The Blue Note jazz club in Missouri, posted advertisements, a calendar of club events, and ticketing information on its Web site.²⁷⁷ The well-known New York jazz club of the same name brought suit in New York and alleged that the Web site infringed on its rights in the trademark “The Blue Note.”²⁷⁸ New York’s

271. *Id.* at 1330.

272. *Id.*

273. *Id.* at 1333.

274. *Id.* at 1332.

275. *Id.* at 1333.

276. *Bensusan*, 937 F. Supp. 295 (S.D.N.Y. 1996).

277. *Id.* at 297–98.

278. *Id.*

long-arm statute permits a court to exercise jurisdiction over any nonresident who “commits a tortious act within the state” or commits a tort outside the state that causes injury within the state if the nonresident regularly conducts or solicits business in the state, or expects his act to have consequences in the state and derives substantial revenue from interstate commerce.²⁷⁹

The plaintiff argued that the Missouri club was selling or promoting an infringing product in New York because the Web site was accessible in New York, and that therefore the tort was committed in the state.²⁸⁰ The plaintiff asserted, in the alternative, that the tort was committed outside the state and the defendant should have foreseen that its activities would have consequences within New York because he knew the plaintiff’s club was located there.²⁸¹ The court rejected both arguments, concluding that even if there were a chance that a person would confuse the two clubs, such an act of infringement would have occurred in Missouri, not New York.²⁸² The court found it particularly significant that the Web page only solicited business and was not interactive (e.g., no tickets were sold at the site).²⁸³ Furthermore, the court concluded that “[t]he mere fact that a person can gain information on the allegedly infringing product is not the equivalent of a person advertising, promoting, selling or otherwise making an effort to target its product in New York.”²⁸⁴

In its due process analysis, the court found that even if jurisdiction were proper under New York’s long-arm statute, asserting jurisdiction would violate due process.²⁸⁵ The defendant did not “purposefully avail himself of the benefits of New York,” and thus could not expect to be hauled into court in New York.²⁸⁶ The court concluded, “[c]reating a site, like placing a product into the stream of commerce, may be felt nationwide—or even worldwide—but, *without more*, it is not an act purposefully directed toward the forum state.”²⁸⁷ The Second Circuit unanimously affirmed, stating, “[a]lthough we realize that attempting to apply established trademark law in the fast-developing world of the [I]nternet is somewhat like trying to board a moving bus, we believe that well-established doctrines of personal jurisdiction law support the result reached by the district court.”²⁸⁸

279. *Id.* at 299.

280. *Id.* at 298–99.

281. *Id.* at 299.

282. *Id.*

283. *Id.*

284. *Id.*

285. *Id.* at 300.

286. *Id.* at 301.

287. *Id.* (emphasis added).

288. *Bensusan Rest. Corp. v. King*, 126 F.3d 25, 27 (2d Cir. 1997).

In a later opinion by the U.S. District Court for the Southern District of New York, *Hearst Corp. v. Goldberger*,²⁸⁹ the court further expounded upon the broader policy issues it considered in analyzing Internet contacts. It noted that where a “defendant has not contracted to sell or actually sold any goods or services to New Yorkers, a finding of personal jurisdiction in New York based on an Internet web site would mean that there would be nationwide (indeed, worldwide) personal jurisdiction over anyone and everyone who established an Internet web site.”²⁹⁰

The cases discussed above highlight the need to understand how courts are analyzing cases involving new technologies such as the Internet. Courts are not deciding issues such as Internet jurisdiction in a vacuum. Their opinions necessarily are shaped in part by existing jurisdictional jurisprudence. The extent to which existing case law will affect the Internet jurisdictional analysis may depend on the court’s view of the Internet paradigm.

In *Bensusan* and *Inset*, for example, both courts analogized the Web sites to advertisements in national media.²⁹¹ Once the courts determined that this analogy applied, they were obliged to apply existing legal rules concerning national advertisements. Under New York law, applied in *Bensusan*, mere solicitation, such as a national advertisement, is not a sufficient basis for jurisdiction.²⁹² In contrast, Connecticut law, applied in *Inset*, permits national advertisements of a sufficiently repetitive nature to ground jurisdiction.²⁹³ As a result, even where courts agree with respect to the choice of metaphor for the technology in these cases, they do not necessarily agree upon the outcome.

The *Bensusan* view of Internet jurisdiction has prevailed over the *Inset* line of cases. The test that has emerged looks at the “active” or “passive” nature of a Web site, and places Web sites on a sliding scale of interactivity to determine whether assertion of jurisdiction is appropriate. However, while this “sliding scale” metaphor for analyzing the nature of contacts over the Internet only came into being in the late 1990s, courts already are finding it to be an awkward fit for the technology. The line of personal jurisdiction cases from *Pennoyer*²⁹⁴ to *International Shoe*²⁹⁵ and its progeny shows that advances in technology can force the paradigm to shift over time, but a shift may already be underway with respect to Internet jurisdiction. This is apparently due to the selection of the wrong metaphor in the first place (e.g., the sliding

289. *Hearst Corp. v. Goldberger*, No. 96 Civ. 3620, 1997 WL 97097 (S.D.N.Y. Feb. 26, 1997).

290. *Id.* at *2.

291. *Bensusan*, 937 F. Supp. at 299; *Inset Syss., Inc. v. Instruction Set, Inc.*, 937 F. Supp. 161, 163 (D. Conn. 1996).

292. *Bensusan*, 937 F. Supp. at 299.

293. *Inset*, 937 F. Supp. at 164.

294. *Pennoyer v. Neff*, 95 U.S. 714 (1877).

295. *Int'l Shoe v. Wash.*, 326 U.S. 310 (1945).

scale of interactivity)—wrong in the sense that it too narrowly constrained thought on the subject too early.

At least one court has rejected the *Zippo* sliding scale. In *GTE New Media Services, Inc. v. BellSouth Corp.*, the U.S. Court of Appeals for the District of Columbia instead based its determination of jurisdiction on a more direct examination of the underlying technology and an application of a traditional purposeful availment standard.²⁹⁶ The court focused on the fact that contacting a Web site involves no more than placing a call to the companies' computer servers, which did not create jurisdiction.²⁹⁷ Similarly in *ALS Scan, Inc. v. Digital Service Consultants, Inc.*,²⁹⁸ the U.S. Court of Appeals for the Fourth Circuit has taken a step away from the sliding scale test by modifying it to take into account the traditional effects test of *Calder v. Jones*.²⁹⁹ This move has been mirrored by other courts that have begun using an effects test standard to judge jurisdiction in cyberspace.

In *ALS Scan*, the Fourth Circuit held that due process permits the exercise of personal jurisdiction over a party when it “(1) directs electronic activity into the State, (2) with the manifested intent of engaging in business or other interactions within the State, and (3) that activity creates, in a person within the State, a potential cause of action cognizable in the State’s courts.”³⁰⁰ The Fourth Circuit developed this three-part test by adapting the *Zippo* “sliding scale” to take into consideration the “effects test” articulated by the Supreme Court in *Calder*.³⁰¹ The Fourth Circuit upheld the lower court’s order dismissing the complaint for lack of personal jurisdiction, holding that an Internet service provider (“ISP”) was not subject to the court’s jurisdiction in a copyright infringement case when its only direct contact with the forum was the existence of its site on the Internet, and it was not directly involved in the publication of any of the allegedly infringing material.³⁰²

The expansion of jurisdiction from the rigid test of *Pennoyer* to the broader, more flexible test of *International Shoe* and its progeny took place through a periodic reassessment of jurisdiction in light of the extensive social, economic, and technological changes in American society.³⁰³ As communications technology matures from print media, to broadcast media, to networking, to who knows what, the law cannot be expected to support the same symbols and metaphors, any more than jurisdictional precedents could continue to support the physical presence

296. *GTE New Media Servs., Inc. v. BellSouth Corp.*, 199 F.3d 1343, 1349 (D.C. Cir. 2000).

297. *Id.* at 1349–50.

298. *ALS Scan, Inc. v. Digital Serv. Consultants, Inc.*, 293 F.3d 707 (4th Cir. 2002).

299. *Calder v. Jones*, 465 U.S. 783 (1984) (finding personal jurisdiction when Florida citizen makes libelous story about California citizen in California publication).

300. *ALS Scan*, 293 F.3d at 714.

301. *Id.* (summarizing *Calder*, then making an analogy for Internet jurisdiction based on an out-of-state citizen’s Internet activity directed at and causing injury to the jurisdiction’s citizen).

302. *Id.* at 714–15.

303. *See id.* at 711 (quoting *Hanson v. Denckla*, 357 U.S. 235, 250–51 (1958)).

or consent models used by the Supreme Court to ground the assertion of personal jurisdiction over out-of-state parties.³⁰⁴

Do the technological changes that have emerged since the last Supreme Court pronouncement in this area justify a further evolution of *International Shoe*? At least one court has commented that “the construction of the information superhighway does not warrant a departure from the well-worn path of traditional personal jurisdiction analysis trod by the Supreme Court and innumerable other federal courts,”³⁰⁵ a conclusion *laden* with metaphors. The Supreme Court has said that “‘traditional notions of fair play and substantial justice’ can be as readily offended by the perpetuation of ancient forms that are no longer justified as by the adoption of new procedures that are inconsistent with the basic values of our constitutional heritage.”³⁰⁶ In order to satisfy the “fair play and substantial justice” test of *International Shoe*, courts may need to reassess the current tenets of personal jurisdiction in light of a competent understanding of the new technology stretching the seams of the old paradigms. However, the answer will not be clear while courts narrow and restrict their analytical picture of the new technology by mentally tying it to prior decisions on technologies (e.g., telephone and news print) in place since that time.

IV. THE TROUBLE WITH METAPHORS

The choice of metaphor made by courts applying established principles to new phenomena clearly impacts both the courts’ reasoning and conclusions. Selection of the “wrong” metaphor may lead to attempts to fit the proverbial square peg in a round hole. This Article has focused largely on courts that are apparently avoiding the pitfalls of adopting ill-fitting metaphors to analyze poorly understood technology. These cases should be examined as models of the type of analysis in which courts should engage. However, a recent line of cases involving the theory of trespass to chattels illustrates how courts can misapply metaphors in technology cases.³⁰⁷

In a steadily growing number of rulings, the theory of trespass to chattels has been successfully applied to curtail cyberspace activities ranging from bombarding users of online service providers with unsolicited commercial electronic messages (e.g., spam)³⁰⁸ to conducting

304. *Calder*, 465 U.S. at 783.

305. *S. Morantz, Inc. v. Hang & Shine Ultrasonics, Inc.*, 79 F. Supp. 2d 537, 543 (E.D. Pa. 1999).

306. *Shaffer v. Heitner*, 433 U.S. 186, 212 (1977) (quoting *Milliken v. Meyer*, 311 U.S. 457, 463 (1940)).

307. A growing number of commentators have criticized the application of the trespass to chattels theory to the Internet. See Lemley, *supra* note 152, at 524, 527 (listing commentators critical of the application of trespass to chattels to the Internet, “especially of cases that apply the doctrine to websites rather than spam and that disregard the requirement of damage”).

308. See, e.g., *CompuServe, Inc. v. Cyber Promotions, Inc.*, 962 F. Supp. 1015, 1021–22 (S.D. Ohio 1997).

automated searches of Internet auction websites.³⁰⁹ As Edward Chang notes, these cases are troubling not only because of the impact they have on the growth of electronic commerce,³¹⁰ but because the opinions are grounded in awkwardly fitting metaphors used to shoehorn the trespass to chattels theory onto the Internet domain.

Prior to *eBay v. Bidder's Edge*, use of the “cyber-trespass” theory had been limited to suits against computer hackers and purveyors of spam.³¹¹ In *eBay*, the court expanded the “cyber-trespass” theory beyond its origins to encompass the defendant’s unauthorized access of eBay’s Web site. Defendant Bidder’s Edge is an Internet-based auction aggregation site designed to permit online auction buyers to comparison shop without having to search each Web site individually by providing a search engine that displays information from numerous online auction sites, including eBay.³¹² In order to compile its database, Bidder’s Edge conducted periodic searches of eBay and other auction sites using automated computer programs (also known as “robots,” “spiders,” and “web crawlers”).³¹³

The parties agreed that Bidder’s Edge accessed the eBay site approximately 100,000 times per day, which eBay asserted constituted up to 1.53 percent of the number of requests received by eBay, and up to 1.10 percent of the total data transferred by eBay.³¹⁴ eBay, an Internet-based person-to-person auction site,³¹⁵ filed suit seeking an injunction against Bidder’s Edge in the U.S. District Court for the Northern District of California.³¹⁶ The district court granted eBay a preliminary injunction prohibiting Bidder’s Edge from obtaining information from eBay’s computer systems through the use of robots or other automated computer programs.³¹⁷

Although the district court found that Bidder’s Edge could not be held liable for trespass to chattels under the Restatement (Second) of

309. See, e.g., *eBay, Inc. v. Bidder's Edge, Inc.*, 100 F. Supp. 2d 1058, 1060–62, 1069–72 (N.D. Cal. 2000).

310. Edward W. Chang, *Bidding on Trespass: eBay, Inc. v. Bidder's Edge, Inc., and the Abuse of Trespass Theory in Cyberspace Law*, 29 AIPLA Q.J. 445, 461–64 (2001) (tracing the development of “cyber-trespass” case law).

311. *Id.* at 459.

312. *eBay*, 100 F. Supp. 2d at 1061–62.

313. *Id.* at 1060–61. The terms robot, spider, and web crawler refer to “[computer software] programs that recursively query other computers over the Internet in order to obtain a significant amount of information.” *Id.* Specifically, a robot is “a computer program which operates across the Internet to perform searching, copying and retrieving functions on the web sites of others.” *Id.* at 1060.

314. *Id.* at 1063.

315. *Id.* at 1060.

316. The court noted that the primary dispute in this case apparently was over the method Bidder’s Edge used to search the eBay database: “eBay wanted BE to conduct a search of the eBay system only when the BE system was queried by a BE user,” which would reduce the load on eBay’s system, while Bidder’s Edge wanted to “recursively crawl the eBay system to compile its own auction database.” *Id.* at 1062.

317. *Id.* at 1060.

Torts Section 218(b) because eBay failed to demonstrate that the value of its computer system had been diminished by Bidder's Edge's activities,³¹⁸ the court concluded that Bidder's Edge was still liable under Section 218(d). Permitting Bidder's Edge to conduct automated searches of eBay's system would encourage other auction aggregators to use similar methods and eventually cause eBay to suffer irreparable future harm from reduced system performance, system unavailability, and data losses, thus harming eBay's legally protected property interest in its computer system.³¹⁹

To reach its conclusion that eBay could establish the irreparable harm required for injunctive relief, the district court analogized eBay's web site to a physical storefront:

If eBay were a brick and mortar auction house with limited seating capacity, eBay would appear to be entitled to reserve those seats for potential bidders, to refuse entrance to individuals (or robots) with no intention of bidding on any of the items, and to seek preliminary injunctive relief against non-customer trespassers eBay was physically unable to exclude.³²⁰

The court acknowledged the difficulties with this analogy, which supports a theory of liability more akin to trespass to real property than trespass to chattels.³²¹ It concluded, however, that under the circumstances of the case,³²² Bidder's Edge's ongoing violation of eBay's property right to exclude others from its computer system "potentially causes sufficient irreparable harm to support a preliminary injunction."³²³ The court thus accepted the brick-and-mortar analogy for the plaintiff's Web site to justify application of the trespass to chattels theory.

318. The Restatement says:

One who commits a trespass to a chattel is subject to liability to the possessor of the chattel if, but only if, (a) he dispossesses the other of the chattel, or (b) the chattel is impaired as to its condition, quality, or value, or (c) the possessor is deprived of the use of the chattel for a substantial time, or (d) bodily harm is caused to the possessor, or harm is caused to some person or thing in which the possessor has a legally protected interest.

RESTATEMENT (SECOND) OF TORTS § 218 (1965). The Ninth Circuit found that because Bidder's Edge could not be found liable under § 218(b), eBay did not demonstrate that the value of its computer system had been diminished by Bidder's Edge's activities. *eBay*, 100 F. Supp. 2d. at 1065.

319. *Ebay*, 100 F. Supp. 2d. at 1066.

320. *Id.* at 1067.

321. The Court noted:

eBay's allegations of harm are based, in part, on the argument that BE's activities should be thought of as equivalent to sending in an army of 100,000 robots a day to check the prices in a competitor's store. This analogy, while graphic, appears inappropriate. Although an admittedly formalistic distinction, unauthorized robot intruders into a "brick and mortar" store would be committing a trespass to real property. There does not appear to be any doubt that the appropriate remedy for an ongoing trespass to business premises would be a preliminary injunction.

Id. at 1065.

322. The difficulty in analysis is that a trespasser can commit an ongoing trespass of a computer system that is similar to the notion of a trespass to real property, rather than the traditional notion of a trespass to chattels, because though it is ongoing, it will probably never amount to conversion. *Id.* at 1067.

323. *Id.*

Lemley aptly observes, however, that the courts in these cyber-trespass cases

[h]ave failed to understand how the Internet is different from the physical world. They have not understood that no one ‘enters’ websites. Rather, defendants in these cases merely sent requests for information to a web server that the plaintiff itself opened to the public, and the plaintiff’s own server sent information in return Because they had land rather than information in mind, these courts forgot that the information at issue in these cases is a public good to which we have never applied the ‘inviolability’ rules of real property.³²⁴

The most recent decision in this line of “cyber-trespass” cases, *Playboy Enterprises, Inc. v. Netscape Communications Corp.*,³²⁵ demonstrates how quickly bad law arises from a court’s prior selection of an inappropriate Internet metaphor. On January 14, 2004, the U.S. Court of Appeals for the Ninth Circuit reversed the district court’s holding which rejected the plaintiff’s contention that the defendants’ use of its trademarks as search terms for its Internet banner advertisements constituted trademark infringement and dilution.³²⁶

324. Lemley, *supra* note 151, at 528–29.

325. *Playboy Enters., Inc. v. Netscape Communications Corp.*, 354 F.3d 1020 (9th Cir. 2004).

326. *Id.* at 1022.

Playboy Enterprises International, Inc. (“PEI”), the well-known publisher of adult entertainment, sued Netscape and Excite to prevent the defendants from engaging in a practice known as “keying.”³²⁷ PEI claimed that Netscape’s and Excite’s use of PEI’s trademarks “Playboy” and “Playmate” as terms to which defendants key advertisers’ banner ads on their Web site search engines constituted federal trademark infringement and federal trademark dilution. The district court denied PEI’s motion for injunctive relief after concluding that PEI failed to establish that Excite’s use of the marks created a likelihood of confusion.³²⁸ The court further found that PEI had failed to prove that actual trademark dilution had occurred.³²⁹ On appeal from summary judgment granted to defendants, the Ninth Circuit reversed.³³⁰

PEI argued that the defendants’ keying practice results in a likelihood of confusion by actively creating initial interest confusion.³³¹ It asserted that users are likely to be confused regarding the sponsorship of banner ads, which appear on the defendants’ search results pages, either confusingly labeled or unlabeled, immediately after users type in “playboy” or “playmate.”³³² According to PEI, users may follow the advertisements instructing users to “click here” because of their misimpression that they would be connected to a PEI site.³³³ Even if the user immediately realized that he reached a site unrelated to PEI, “the damage has been done: [t]hrough initial consumer confusion, the competitor ‘will still have gained a customer by appropriating the goodwill that [PEI] has developed in its mark.’”³³⁴ The Ninth Circuit agreed, holding that a genuine issue of fact existed as to whether the defendants’ practice created a likelihood of confusion.³³⁵

327. “Keyword banner advertising is a form of targeted online marketing whereby a banner ad is displayed on a search engine results page,” typically running along the top or bottom of the page. Kurt M. Saunders, *Confusion Is the Key: A Trademark Law Analysis of Keyword Banner Advertising*, 71 *FORDHAM L. REV.* 543, 543 (2002). The banner ad is triggered by the keyword used in the search. Many search engines sell keywords, which advertisers purchase for the purpose of displaying their ads to a targeted audience, i.e., to those who conduct a search using specific keywords. *Id.* at 545.

To take an innocuous example, a person who searches for a term related to gardening may be a likely customer for a company selling seeds. Thus, a seed company might pay to have its advertisement displayed when searchers enter terms related to gardening. After paying a fee to defendants, that company could have its advertisements appear on the page listing the search results for gardening-related terms: the ad would be “keyed” to gardening-related terms. *Playboy*, 354 F.3d at 1022–23.

328. *Playboy Enters., Inc. v. Netscape Communications Corp.*, 55 F. Supp. 2d 1070, 1083 (C.D. Cal. 1999).

329. *Id.* at 1087–88. The court also determined that the First Amendment and the fair use doctrine protected Netscape’s and Excite’s use of the trademarks. *Id.* at 1084–85.

330. *Playboy*, 354 F.3d at 1020.

331. Initial interest confusion is pre-sale confusion that is fully dispelled before purchase, but which creates initial interest in a competitor’s product. *Id.* at 1025.

332. *Id.* at 1023, 1025.

333. *Id.* at 1025.

334. *Id.*

335. *Id.* at 1034.

The Ninth Circuit's ruling in *Playboy* essentially was a foregone conclusion after its 1999 ruling in *Brookfield Communications, Inc. v. West Coast Entertainment Corp.*,³³⁶ in which the court established that initial interest confusion occurs when users access a Web site in the mistaken belief that it is affiliated with the plaintiff, only to discover otherwise upon arriving at the site.³³⁷ In *Brookfield*, the Ninth Circuit concluded that Brookfield Communications was likely to succeed in its claim that West Coast Entertainment had violated the Lanham Act by using Brookfield Communications' trademark "MovieBuff" in its Web site's metatags, as well as in its domain name, "moviebuff.com."³³⁸ The court noted that Web surfers seeking information on Brookfield's "MovieBuff" might confuse "MovieBuff" with West Coast's searchable entertainment database at "moviebuff.com" and simply assume that they have reached Brookfield's Web site.³³⁹

The Brookfield court analogized West Coast's use of the "MovieBuff" mark to a hypothetical road sign scenario:

Suppose West Coast's competitor (let's call it "Blockbuster") puts up a billboard on a highway reading – "West Coast Video: 2 miles ahead at Exit 7" – where West Coast is really located at Exit 8 but Blockbuster is located at Exit 7. Customers looking for West Coast's store will pull off at Exit 7 and drive around looking for it. Unable to locate West Coast, but seeing the Blockbuster store right by the highway entrance, they may simply rent there. Even consumers who prefer West Coast may find it not worth the trouble to continue searching for West Coast since there is a Blockbuster right there. Customers are not confused in the narrow sense: they are fully aware that they are purchasing from Blockbuster and they have no reason to believe that Blockbuster is related to, or in any way sponsored by, West Coast. Nevertheless, the fact that there is only initial consumer confusion does not alter the fact that Blockbuster would be misappropriating West Coast's acquired goodwill.³⁴⁰

The "confusion" found by the court was the increased probability that when a user entered "MovieBuff" as a search inquiry, the defendant's Web site, <http://www.westcoastvideo.com>, would appear in a list of search results.³⁴¹ The court explained that "using another's trademark in one's metatags is much like posting a sign with another's

336. *Brookfield Communications, Inc. v. West Coast Entm't Corp.*, 174 F.3d 1036 (9th Cir. 1999).

337. The Ninth Circuit expressly noted in *Playboy*: "PEI's theory strongly resembles the theory adopted by this court in [Brookfield]." *Playboy*, 354 F.3d at 1025.

338. Metatags are hidden codes that can be embedded in the Hypertext Markup Language ("HTML") source code of a Web page and are searchable by search engines. "The more often a [search] term appears in the metatags and in the text of the web page, the more likely it is that the web page will be 'hit' in a search for that keyword, and the higher on the list of 'hits' the web page will appear." *Brookfield Communications, Inc.*, 174 F.3d at 1045, 1066.

339. *Id.* 1062.

340. *Id.* at 1064.

341. *Id.* at 1062.

trademark in front of one's store."³⁴² Customers believing they are entering the first store rather than the second are still likely to mill around before they leave. The Ninth Circuit concluded that the same theory holds true for Web sites.³⁴³ Once the court applied the analogy of "storefront" initial interest confusion to the Internet, the resulting *Playboy* decision was a foregone conclusion.³⁴⁴

However, as Lisa Sharrock and other commentators have argued, the Ninth Circuit's application of trademark law's initial interest confusion theory to the Internet is flawed in several respects:

First, the court's analysis ignores the strong possibility that the user who types in "MovieBuff" has actually merely omitted the space between "movie" and "buff" in an effort to locate general movie websites or even information about the defendant's products, which are sold under the service mark "The Movie Buff's Movie Store." Moreover, the court's finding of confusion requires the logical stretch that a reasonable Internet user will actually be confused in some manner by the inclusion of the westcoastvideo.com website on a list of search engine results for "MovieBuff." This conclusion is by no means self-evident, because search engine queries almost always return more than one result, and Internet users are thus accustomed to sorting through a list in order to find the intended object of the search. Further, the *Brookfield* court does not appear to consider whether reasonable consumers would be likely to alter their purchasing patterns in any manner as a result of the alleged infringement.³⁴⁵

The Ninth Circuit's choice of metaphor in *Brookfield*—Web site as brick-and-mortar shop, metatags as billboards along a highway—has led to an expansion of the initial interest confusion principle from situations in which consumers are misdirected by competitors by making it appear that they are visiting the trademark owner's shop or Web site, to those in which consumers are simply given another choice of which Web site to visit without any accompanying proof of confusion. This point was not lost on the concurrence in *Playboy*. In his concurring opinion, Judge Berzon criticized the principle reached in *Brookfield* as lacking any actionable misdirection.³⁴⁶ Judge Berzon notes that "the billboard analogy has been widely criticized as inapplicable to the Internet situation, given both the fact that customers were not misdirected and the minimal inconvenience in directing one's Web browser back to the

342. *Id.* at 1064.

343. *Id.*

344. America Online, which now owns Netscape, announced a settlement has been reached between the parties under undisclosed terms. Consequently, the district court will not have the opportunity to reconsider the ruling. Reuters, *American Online Settles Trademark Row with Playboy*, FORBES.COM (Jan. 23, 2004), at <http://www.forbes.com/markets/newswire/2004/01/23/rtr1224877.html>.

345. Lisa M. Sharrock, *Realigning the Initial Interest Confusion Doctrine with the Lanham Act*, 25 WHITTIER L. REV. 53, 68–69 (2003).

346. *Playboy*, 354 F.3d 1020, 1035 (9th Cir. 2004).

original list of search results.”³⁴⁷ While Judge Berzon agreed with the result reached in *Playboy*, he expressed concern that the holding was limited to situations in which banner ads are unlabeled and thus arguably mislead users regarding their affiliation with the trademark holder.³⁴⁸

V. CONCLUSION

Metaphors should be the jumping-off point for understanding new technologies, not a substitute for such understanding. The challenge for courts is to become more attentive in using metaphors to understand new phenomena. As a number of commentators have advised, courts and policymakers must take into account the differences between the Internet and the physical world when formulating legal policies for this new medium.³⁴⁹

As Haig Bosmajian noted while examining metaphors in legal discourse, “[o]ur task is to recognize and be a bit wary of the tropology of the law, for while tropes can help us comprehend the abstract legal concepts and appreciate new perspectives, tropes can also cramp our thinking and result in outmoded and dangerous legal language and precedents.”³⁵⁰ Another writer observes:

Metaphors create insight. But they also distort. They have strengths. But they also have limitations. In creating ways of seeing, they create ways of not seeing. There can be no single theory or metaphor that gives an all-purpose point of view, and there can be no simple ‘correct theory’ for structuring everything we do. The challenge facing modern managers is to become accomplished in the art of using metaphor to find new ways of seeing, understanding, and shaping their actions.³⁵¹

Once you grasp this, you realize you never have the “right” metaphor (or metaphors).³⁵² Rather, by examining a new phenomenon through the prism of a metaphor, “[y]ou are thrust into a mode of

347. *Id.* at 1036 (citing J. Thomas McCarthy, MCCARTHY ON TRADEMARKS & UNFAIR COMPETITION § 25:69 (4th ed. 2003); see also Gregory Shea, *Trademarks and Keyword Banner Advertising*, 75 S. CAL. L. REV. 529, 552 (2002)).

348. *Id.*

349. See, e.g., Mark A. Lemley, *supra* note 152, at 526–32; Hunter, *supra* note 76, at 439; Maureen A. O’Rourke, *Property Rights and Competition on the Internet: In Search of an Appropriate Analogy*, 16 BERKELEY TECH. L.J. 561, 561 (2001).

350. BOSMAJIAN, *supra* note 3, at 205.

351. GARETH MORGAN, *IMAGINATION: NEW MINDSETS FOR SEEING, ORGANIZING, AND MANAGING* (1997) (discussing role of metaphors in managing corporate change).

352. See George Lakoff & Mark Johnson, *The Metaphorical Structure of the Human Conceptual System*, in *PERSPECTIVES ON COGNITIVE SCIENCE* 198, 206 (Donald O. Norman ed. 1986) (“In summary, abstract concepts are not defined by necessary and sufficient conditions. Instead they are defined by clusters of metaphors. Each metaphor gives a partial definition. These partial definitions overlap in certain ways, but in general they are inconsistent, and typically have inconsistent ontologies.” The authors further observe: “The way ordinary people deal implicitly with the limitations of any one metaphor is by having many metaphors for comprehending different aspects of the same concept.”)

inquiry, learning and conversation that leads you to open exploration—to be open to anything.”³⁵³ Without a conscious examination of the metaphors used by judges setting legal precedents, including consideration of competing alternate metaphors, legal analysis of complex technology may be tainted by “limited comprehension masquerading as the whole truth.”³⁵⁴

Given metaphor’s dual nature as both benefit and bane to judicial reasoning, what should courts do? Perhaps the lesson here is just this: *buyer beware*.

353. *Id.*

354. BALL, *supra* note 60, at 22.