CYBERSPACE AS PLACE, AND THE TRAGEDY OF THE DIGITAL ANTICOMMONS

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Abstract

Cyberspace was once thought to be the modern equivalent of the Western Frontier, a place, where land was free for the taking, where explorers could roam, and communities could form with their own rules. It was an endless expanse of space: open, free, replete with possibility. This it true no longer. This Article argues that we are enclosing cyberspace, and imposing private property conceptions upon it. As a result, we are creating a digital anti-commons where sub-optimal uses of Internet resources is going to be the norm.

Part I shows why initial discussions of cyberspace as place have mistaken the idea of how we think about cyberspace, with the normative question of how we should regulate cyberspace. It suggests that we can bracket the normative question, and still answer the descriptive question of whether we think of cyberspace as a place.

Part II then examines the lessons of recent cognitive science, and demonstrates the importance of physical metaphors within our cognitive system. It then examines the evidence of our use a physical metaphor, "cyberspace as place", in understanding online communication environments.

Part III focuses on the unacknowledged, and unrecognized, influence that this metaphor has had on the development of the legal framework for the Internet. It examines tortious, criminal, and constitutional law responses to cyberspace, and concludes that the metaphor of "cyberspace as place" exercises a strong, and unrecognized, influence on the regulatory regimes of cyberspace.

Part IV details the implications of this observation and show why they are extremely troubling. The conception of "cyberspace as place" leads to the implication that there is property online, and that this property should be privately owned, parceled out, and exploited. Though private ownership of resources of itself is not problematic, it can lead to the opposite of the tragedy of the commons: the tragedy of the anti-commons. Anti-commons property occurs when multiple parties have an effective right to preclude others from using a given resource, and as a result no-one has an effective right of use. Part IV argues that this is precisely where the "cyberspace as place" metaphor leads. We are moving to a digital anti-commons, where no-one will be allowed to access competitors' cyberspace "assets" without licensing or other transactionally-expensive (or impossible) permission mechanism.

The Article shows how the "cyberspace as place" metaphor leads to undesirable private control of the previously commons-like Internet, and the emergence of the digital anti-commons. As we all come to stake out our little claim in cyberspace, then the commons which is cyberspace is being destroyed.

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> In the early days of computer networks it seemed a slightly far-fetched metaphor to describe...sites as "places," since bandwidth was narrow...As bandwidth burgeons and computing muscle continues to grow, cyberspace places will present themselves in increasingly multisensory and engaging ways...We will not just look *at* them; we will feel present *in* them.[1]

> In an anticommons...multiple owners are each endowed with the right to exclude others from a scarce resource, and no one has an effective privilege of use. When there are too many owners holding rights of exclusion, the resource is prone to underuse - a tragedy of the anticommons.[2]

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1 WILLIAM J. MITCHELL, CITY OF BITS—SPACE, PLACE AND THE INFOBAHN, 114-5 (1995) [Hereinafter MITCHELL, CITY OF BITS].

2 Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621, 624 (1998) [Hereinafter Heller, *Anticommons*].

INTRODUCTION

Historians will look back to these early years of this century as the moment when the tipping point became apparent. It is not too portentous to say that we stand at the fork between two possible futures of intellectual endeavor. Down one road lies a future of completely propertized and privatized ownership of intellectual activity. Down the other road is a future where the interests of society at large is fostered, which at times leads to private ownership of intellectual activity, and other times demands that some public intellectual space be kept in commons for all.

This observation has being made by others within the spheres of intellectual property rights such as copyright[3] and patent.[4] The concern also motivates the recent Supreme Court decision to grant certiorari in *Eldred v. Ashcroft*, a case challenging congressional extension of copyright terms.[5] However, the focus on intellectual property interests masks the area where the trend to property in ideas has its most pernicious effect: on the Internet. Cyberspace was once thought to be the modern equivalent of the Western Frontier.[6] It was a place, albeit an abstract place, where land was free for the taking, where explorers could roam, and communities could form with their own rules.[7] It was an endless expanse of space: open, free, replete with possibility.[8] No longer. As with the Western Frontier, settlers have entered this new land, charted the territory,

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3 See James Boyle, *The Second Enclosure Movement and the Construction of the Public Domain*, at http://www.law.duke.edu/pd/papers/boyle.pdf, 1-4 (last visited Mar. 23, 2002) [Hereinafter Boyle, *Enclosure Movement*]; Lawrence Lessig, *The Architecture of Innovation*, at http://www.law.duke.edu/pd/papers/lessig.pdf (last visited Mar. 23, 2002).

4 See Boyle, *Enclosure Movement supra* note __ at 4-5.

5 Eldred v. Reno, 239 F.3d 372 (D.C. Cir. 2001), aff'g. 74 F. Supp.2d 1 (D.D.C 1999), *cert. granted,* No. 01-618, U.S. Sup. Ct. (2002).

6 See e.g. Jonathan J. Rusch, *Cyberspace and the "Devil's Hatband"*, *24* SEATTLE UNIV. L. REV. 577 at 578-9 [Hereinafter Rusch, *Devil's Hatband*].

7 HOWARD RHEINGOLD, THE VIRTUAL COMMUNITY—HOMESTEADING ON THE ELECTRONIC FRONTIER (1993) [hereafter RHEINGOLD, COMMUNITY]. See also David R. Johnson and David Post, *Law and Borders—The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367, 1367-75 (1996) [hereafter Johnson & Post, *Law and Borders*].

8 Rusch, *Devil's Hatband supra* note ____ at 578-9

fenced off their own little claim, and erected "No Trespassing" signs.[9] Cyberspace is being sub-divided. Suburbs and SUVs cannot be far off.

This outcome seems anything but surprising: cyberspace appears to be just like a place, and the progression of property interests over the last five hundred years shows that places tend to be enclosed, and privately exploited.[10] However, it is a surprising result in cyberspace, because legal commentators have convinced us that cyberspace is not a place at all. Some early scholars argued that cyberspace was a separate space for the purposes of law and regulation,[11] but they were quickly derided for their naïveté.[12] By the end of the last century, the received wisdom ordained that no-one could be foolish enough to argue that cyberspace was a place.[13] However, the received wisdom has confused the descriptive question of whether we think of cyberspace as a place, with the normative question of whether we should regulate cyberspace as a regime independent of national laws. As I explain, these are two conceptually distinct questions. Whatever the answer to the normative question, there is significant evidence that, purely as a descriptive observation, we do think of cyberspace as a place. Cognitive science investigations into how people think provide ample evidence of this.[14]

Thinking of cyberspace as a place has led judges, legislators and legal scholars into assuming that our physical assumptions about property should apply to this new, abstract space. Owners of internet resources start to think of their website or email system as their own little claim in cyberspace, which must be protected against the typical encroachments we find in the physical property world. This has lead to a series of cases and statutes which enshrine the idea of these property interests in cyberspace.[15]

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9 See Part III.C. *infra*.

10 See Part IV.A. *infra*.

11 See Part I.A. *infra*.

12 *Id*.

13 Timothy Wu, *When Law & the Internet First Met*, 2 GREEN BAG 2d 171 (2000) [Hereinafter Wu, *First Met*]. See Part I. *infra*

14 See Part II. *infra*

15 See Part III.A-D. *infra*.

The effect of this is to take the hitherto commons-like character of cyberspace, and splinter it into millions of tiny landholdings. Privatization in this form is not, of itself, a problem: private interests are the dominant forms of resource allocation in our world. However, modern property theorists have demonstrated the dangers of splintering interests: the undesirable consequence is to create "anticommons property."[16] Anticommons property emerges where multiple people hold rights of exclusion to a property such that no-one has an effective right of use. As a result, a "tragedy of the anticommons" occurs, where property is locked into sub-optimal and wasteful uses, because the preclusion rights-holders block the best use of the resource.[17]

This Article suggests that thinking of cyberspace as a place, and the consequent legal propertization of cyberspace, is leading us to a tragedy of the digital anticommons. Recent laws and decisions are creating millions of splintered rights in cyberspace, and these rights are destroying the commons-like character of the Internet, which has previously lead to such extraordinary innovation. If we continue down the fork we currently are traveling, we risk creating a digital anticommons that would destroy much of the innovations we have created to date. Historians will look back on our time and wonder—when we have seen what the Internet could be—how we could have sat and watched as the tragedy of the digital anticommons occurred.

This Article tells a long and complex story, which requires the explication of a number of non-obvious arguments that lead to the digital anticommons conclusion. The starting point is to challenge the previous wisdom that cyberspace is not a place for legal purposes. In Part I, then, this Article explains the history of the argument, and demonstrates why the received wisdom is wrong. It suggests that we have previously confused normative issues with descriptive questions.

With this issue resolved, Part II develops a descriptive theory of how we think about cyberspace. Here, the Article examines recent theories of cognitive science; the science of the workings of the mind.[18] One of the most important

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16 Heller, *Anticommons*, *supra* note ___ at 624-6. See Part IV *Infra*.

17 *Id*.

18 Cognitive science is, broadly, the "long-term enterprise to understand the mind scientifically.' DAVID W. GREEN ET AL, COGNITIVE SCIENCE—AN INTRODUCTION, 2. (1996).

theories of cognition demonstrates the importance of physical metaphors within our cognitive system. These metaphors are used, usually unconsciously, in an effort to understand the abstract in terms we recognize from our physical environment. Metaphor is now considered central in shaping our thinking. It should come as no surprise then that, in an arena as abstract as online communications, we should draw on a conceptual spatial metaphor to structure our thinking.

Though theories of metaphor now form a major category of study in the philosophy of language, in linguistics and in cognitive science,[19] the renewed interest has largely passed law by. A few legal articles and fewer books devote themselves to a serious study of recent metaphor theories. [20] There is still a general perception that law is a "serious" and objective study that should eschew figurative language as much as possible. Justice Cardozo once reminisced about his early days on the bench:

> I was much troubled in spirit, in my first years upon the bench, to find how trackless was the ocean on which I had embarked. I sought for certainty. I was oppressed and disheartened when I found that the quest for it was futile. I was trying to reach land, the solid land of fixed and settled rules...[21]

Many would agree that, in making law, we should prefer Cardozo's "solid land of fixed and settled rules" to the fluid and dangerous sea of metaphor. It is no

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It involves the disciplines of computer science, linguistics, neuroscience, psychology, and philosophy, in an effort to understand how the mind works, *Id* 5. See Dan Hunter, *Reason is Too Large: Analogy and Precedent in Law*, ___ EMORY L.J. ____, ____ (2001) (forthcoming)

19 See W.A. SHIBLES, METAPHOR: AN ANNOTATED BIBLIOGRAPHY AND HISTORY (1971), J.P. VAN NOPPEN, METAPHOR: A BIBLIOGRAPHY OF POST-1970 PUBLICATIONS (1985) and J.P. VAN NOPPEN & E. HOLS, METAPHOR II: A CLASSIFIED BIBLIOGRAPHY OF PUBLICATIONS, 1985-1990 (1990).

20 The most important exception is the work of Steven L. Winter, *The Metaphor Of Standing And The Problem Of Self-Governance*, 40 STAN. L. REV. 1371 (1988) [Hereinafter Winter, *Standing*]; Steven L. Winter, *The Cognitive Dimension of the Agon Between Legal Power and Narrative Meaning*, 87 MICH. L. REV. 2225 (1989) [Hereinafter Winter, *Agon*]; Steven L. Winter, *Transcendental Nonsense, Metaphoric Reasoning, and the Cognitive Stakes for Law*, 137 U. PA. L. REV. 1105 (1989) [Hereinafter Winter, *Nonsense*]; Steven L. Winter, *Bull Durham and the Uses of Theory*, 42 STAN. L. REV. 639 (1990) [Hereinafter Winter, *Bull Durham*]; Steven L. Winter, *Death is the Mother of the Workplace*, 105 HARV. L. REV. 745 (1992) (book review) [Hereinafter Winter, *Death*]; Steven L. Winter, *The "Power" Thing*, 82 VA. L. REV. 721 (1996) [Hereinafter Winter, *Power*].

21 BENJAMIN N. CARDOZO, THE NATURE OF THE JUDICIAL PROCESS, 166 (1921).

wonder then that lawyers assume that metaphors are dangerous, and often wrong. Against this, I explain the cognitive science view of metaphor, and detail its obvious importance in legal reasoning.

Using this as a foundation, Part III applies the insights of cognitive science to the regulation of cyberspace. It explores the evidence that the specific structuring metaphor of CYBERSPACE AS PLACE[22] operates on us all, in both lay discussion of online interactions, and in legal analysis. It begins by discussing the evidence of the metaphor from geographers exploring the sense of place that is present in online communities. It then details a number of different Internet-related legal domains, in each of which we see that judges, legislators, and other lawyers all adopting the CYBERSPACE AS PLACE metaphor, whether they realize it or not. So, for example, in traditional views of the criminality of cyberspace hacking, it is forbidden to "trespass" upon a computer or a computer system. The application of the place metaphor within the criminal system is neatly reflected in the application, within the civil sphere, of the tort of "trespass to chattels" in cyberspace. This tort—made famous in the *eBay v Bidders Edge* case[23] but found in spam cases also—is now a significant method of protecting against competitive practices that rely upon accessing any internet resource. Though the "trespass to chattels" action would seem to be directed at the personal property at the edges of the net—the webservers, fileservers, or email servers—a careful analysis of the language of the judges in these cases demonstrates that they have a real property action in mind. Other examples of the "placeness" of cyberspace regulation exist: from the agonized musings over Internet jurisdiction and conflict of law questions, through place-based American constitutional law theories used in a cyberspace context, to zoning laws applied to parts of the Internet. These examples are so multifarious, and so wide-ranging, that I will suggest that the CYBERSPACE AS PLACE metaphor operates as one of the most compelling theories of how we have regulated cyberspace to date, and how we will continue regulating it in future.

This observation leads, in Part IV, to the very disturbing implications alluded to in the opening paragraphs. Using the CYBERSPACE AS PLACE metaphor, we can

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22 The capitals used henceforth for the metaphor "CYBERSPACE AS PLACE" are to distinguish it as a conceptual metaphor in the tradition of Lakoff and others. See *infra* Part II.B.

23 eBay, Inc. v. Bidder's Edge, Inc., 100 F. Supp.2d 1058 (N.D.Cal. 2000).

now see how, and why, the Internet moved from its open state (circa 1995)[24] to its increasingly proprietary—and proprietarily owned—state. If we accept the CYBERSPACE AS PLACE metaphor, then it is a very short step to assume that there is some kind of property online, and that this property should be privately owned, parceled out, and exploited. This comports with recent concerns about the gradual whittling away of the public domain within intellectual property. James Boyle has called this the "Second Enclosure Movement"[25] after the enclosure movement in England during medieval times, where commons property was fenced off and was enclosed as private property. Part IV demonstrates that we are witnessing a similar process in the "Cyberspace Enclosure Movement." Private interests are reducing the public ownership of, and public access to, ideas and information in the online world. Private ownership of resources of itself is not problematic; indeed private ownership is generally considered to be the most efficient form of allocation of property resources. However, as Part IV examines modern property theory and shows how private ownership can lead to the tragedy of the anti-commons. This Part argues that this is precisely where the CYBERSPACE AS PLACE metaphor leads. The recent rise of the "trespass to chattels" action, the extension of criminal liability to competitors' legitimate investigation of rival's websites, the rise of the importance of website Terms of Use, and a number of other online developments, means that we are moving to a digital anti-commons, where no-one will be allowed to access competitors' cyberspace "assets" without some form of licensing, or other transactionally-expensive permission mechanism.

The conclusion of the Article shows how the CYBERSPACE AS PLACE metaphor leads to undesirable private control of the previously commons-like Internet, and the consequent emergence of the digital anti-commons. As we all come to stake out our little claim in cyberspace, the commons which is cyberspace is being destroyed.

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24 LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE, 26-7 (1999) (contrasting the Chicago and Harvard network access regime, and arguing that the Net was initially open and that software code changed the regulatory balance) [hereafter LESSIG, CODE].

25 Boyle, *Enclosure Movement*, *supra* note _____.

I. AUTONOMY AND PLACE IN CYBERSPACE

I think that cyberspace is a place. It may be virtual and abstract, but I think that it is a place nonetheless. Let me be bolder: though you have never consciously thought about the proposition, you also think that cyberspace is a place. Actually, let me go further: and all lawyers, judges, and lawyers unconsciously think that cyberspace is a place, even though at times they may argue vehemently that it is not.

These are dangerous claims. For those aware of the development of internet and cyberspace law, any attempt to defend the idea of cyberspace as a place will appear either ill-informed or quixotic. For a brief moment, the legal conception of "cyberspace as place" flared, and then was gone. As a legal argument it peaked around 1996, was attacked soon thereafter and, as one commentator has noted, by the year 2000 one was hard-pressed to find anyone foolish enough to subscribe to this theory.[26] Why I am foolish enough to defend this theory—indeed to base this entire Article around the theory—requires an understanding of the history of the theory.

A. The History of Cyberspace as a Legal Place

The idea that cyberspace might be regulated as a place stemmed from the early cyberlibertarian conception that cyberspace was different than "here" and so should be accorded some form of autonomy from real world—or so called "meatspace"—sovereigns.[27] At its high point, the rhetoric was amusing, and intentionally overblown:

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26 "When first introduced, the Internet, as Cyberspace, was introduced as a place...One is pressed to find that place in 2000." Wu, *First Met supra* note ____ at 171.

27 See, e.g., John Perry Barlow, *Is There a There in Cyberspace?*, http://www.eff.org/pub/Publications/John_Perry_Barlow/HTML/utne_community.html (visited April 1, 2002); Esther Dyson, George Gilder, George Keysworth, and Alvin Toffler, *Cyberspace and the American Dream: A Magna Carta for the Knowledge Age*, August 22, 1994, http://seldy.townhall.com:80/pff/position.html (visited April 1, 2002); Mitchell Kapor and John Perry Barlow, *Across the Frontier*, July 10, 1990,

> Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather...[28]

The legal reflection of this idea, shorn of its rhetorical excesses, asked "What is the appropriate mechanism for cyberspace regulation?" The initial answer was that self-regulation was the only appropriate governance structure. Within legal discourse, the cyberspace self-governance movement was championed most notably by Johnson and Post in a seminal 1996 article.[29] They argued that the Internet challenged the power of the nation-state to regulate online behavior, as well as its legitimacy to do so.[30] They argued that there was no longer an obvious method to connect an electronic transaction or communication to a particular nation-state jurisdiction. As a result, both from the descriptive and normative perspective, it was no longer obvious that national laws should apply to cyberspace transactions. They concluded that cyberspace should be left to

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http://www.eff.org/pub/Publications/John_Perry_Barlow/HTML/eff.html (visited April 1, 2002).

28 John Perry Barlow, *Declaration of the Independence Cyberspace*, February 9, 1996, http://www.eff.org/pub/Publications/John_Perry_Barlow/barlow0296.declaration (visited April 1, 2002).

29 Johnson & Post, *Law and Border, supra* note ____. See also David G. Post, *Anarchy, State, and the Internet: An Essay on Law—Making in Cyberspace*, 1995 J. ONLINE L. art. 3, http:// www.law.cornell.edu/jol/jol.table.html (arguing for a dectralized system of Internet governance); David Johnson & David Post, *And How Shall the Net Be Governed? A Meditation on the Relative Virtues of Decentralized, Emergent Law*, in COORDINATING THE INTERNET (B. Kahin and J. Keller eds., 1997) (same); David G. Post, *Governing Cyberspace*, 43 WAYNE L. REV. 155, 161 (1996) (arguing that cyberspace transactions occur in a virtual space); David G. Post & David R. Johnson, *"Chaos Prevailing on Every Continent": A New Theory of Decentralized Decision-Making in Complex Systems*, 73 CHI.-KENT L. REV. 1055 (1998) (applying complexity theory in support of decentralization argument).

30 "The rise of the global computer network is destroying the link between geographical location and: (1) the power of local governments to assert control over online behavior; (2) the effects of online behavior on individuals or things; (3) the legitimacy of a local sovereign's efforts to regulate global phenomena; and (4) the ability of physical location to give notice of which sets of rules apply. The Net thus radically subverts the system of rule-making based on borders between physical spaces, at least with respect to the claim that Cyberspace should naturally be governed by territorially defined rules." Johnson & Post, *Law and Borders*, *supra* note ____ at 1370.

develop its own self-regulatory structures, and that national sovereigns should, under certain circumstances, defer to this new legal environment.[31]

Around the same time, other theorists developed similar arguments in favor of internal self-regulatory structures. These arguments included suggestions that online transactions might be better regulated by an system of norms similar to the development of the *Lex Mercatoria*—the set of norms governing merchant transactions in medieval times[32]—or that we might see the rise of the "US District Court for the District of Cyberspace",[33] amongst other surprising claims.[34] At least three major legal symposia related to this question ran at this time,[35] and a significant number of the participants assumed that it was either

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31 Johnson & Post, *Law and Borders*, *supra* note ___ at 1400-1402.

32 I. Trotter Hardy, *The Proper Legal Regime for 'Cyberspace'*, 55 U. PITT. L. REV. 993, 994, 1019-25 (1994) (contending that in the absence of some compelling social reason to the contrary, rules of conduct in cyberspace should be governed by self-help, custom, and contract of cyberspace participants, and arguing specifically in favor of recognizing a limited Law Merchant-like regulatory mechanism); Joel R. Reidenberg, *Lex Informatica: The Formulation of Information Policy Rules Through Technology*, 76 TEX. L. REV. 553 (1998) (arguing for the *Lex Mercatoria*, applied to cyberspace as the "*Lex Informatica*").

33 Henry H. Perritt Jr., *Jurisdiction in Cyberspace*, 41 VILL. L. REV. 1, 100-1 (1996).

34 See e.g. Henry R Perritt, Jr. *The Internet is Changing International Law*, 73 CHI-KENT L. REV. 997 (1998) (arguing that the Internet challenges national sovereignty, and alters international law as a consequence); John T. Delacourt, *The International Impact of Internet Regulation*, 38 HARV. INT'L. L.J. (1997) (arguing for consensual self-regulation as the best way avoid overly-restrictive and parochial national regulations); Shamoil Shipchandler, *Note, The Wild Wild Web: Non-Regulation as the Answer to the Regulatory Question*, 33 Cornell Int'l L.J. 435, 443-45 (2000) (arguing against strong top-down regulation); David Kushner, *The Communications Decency Act and the Indecent Indecency Spectacle*, 19 HASTINGS COMM. & ENT. L.J. 87, 131 (1996); Tom Steinert-Threlkeld, *Of Governance and Technology*, INTER@CTIVE WK ONLINE, (Oct 2 1998) http://www.zdnet.com/intweek/filters/tthrelkl.html; Llewellyn Joseph Gibbons, *No Regulation, Government Regulation, or Self-Regulation: Social Enforcement or Social Contracting for Governance in Cyberspace*, 6 Cornell J.L. & Pub. Pol'y 475 (1997); Henry H. Perritt, Jr., *Cyberspace Self-Government: Town Hall Democracy or Rediscovered Royalism?*, 12 BERKELEY TECH. L.J. *413, 419-20 (1997)* (contending that as a general rule "self-governance is desirable for electronic communities"); Edward J. Valauskas, *Lex Networkia: Understanding the Internet Community*, FIRST MONDAY (Oct. 7, 1996) <http://www.firstmonday.dk/issues/issue4/valauskas/index.html> (calling for formalization of Internet self-governance); Joel R. Reidenberg, *Governing Networks and Rule-Making in Cyberspace*, 45 EMORY L.J. 911 (1996) (arguing that attempts to define rules for the development of cyberspace rely on disintegrating concepts of territory and sector, and ignore the new borders that transcend national boundaries);

35 "The Law of Cyberspace" Symposium, University of Chicago Law School, 1996 U. CHI. LEGAL. F. 1-653; "Surveying Law and Borders" Symposium, Stanford Law

desirable, or inevitable, that some form of self-regulatory structure would apply to cyberspace.[36] Though many different ideas were proffered and many different legal doctrines analyzed, one of the defining—albeit often unstated—characteristics of the arguments of this period was that cyberspace is a place. The second defining characteristic was that these theorists suggested, in part because they viewed cyberspace as a place, that cyberspace should be regulated independently of physical sovereigns. As a result, the received wisdom, *circa* 1996-7, was that cyberspace is, or should be, an autonomous place for the purposes of regulation.

School, 48 STAN L. REV. 1037-1420, (1996); "Legal Issues in Cyberspace", Randolph W. Thrower Symposium, Emory University School of Law, 45 EMORY L.J. (1996)

36 See e.g. Johnson & Post, *Law and Borders*, *supra* note ___; Reidenberg, *Governing Networks*, *supra* note ___; Edward Soja, *Afterword*, 48 STAN L. REV. 1421 (1996) (connecting spatial scholarship to law and cyberspace); Larry Irving, *Safeguarding Consumers Interests in Cyberspace*, 1996 U. CHI. LEGAL. F. 1 (noting the new spatial characteristics of cyberspace and discussing the national governmental response); David G. Post, *Pooling Intellectual Capital: Thoughts on Anonymity, Pseudonymity, and Limited Liability in Cyberspace*, 1996 U. CHI. LEGAL. F. 139 (examining the legal implications of anonymity and pseudonymity within the context of cyberspace as place); I. Trotter Hardy, *Property (and Copyright) in Cyberspace*, 1996 U. CHI. LEGAL. F. 217 (examining particular intellectual property conceptions and how they differ in this new online space); Henry H. Perritt, *Property and Innovation in the Global Information Infrastructure*, 1996 U. CHI. LEGAL. F. 261 (same); M. Ethan Katsh, *Software Worlds and the First Amendment: Virtual Doorkeepers in Cyberspace*, 1996 U. CHI. LEGAL. F. 335 (applying the First Amendment to the online space); Richard H. Acker, *Choice-of-Law Questions in Cyberfraud*, 1996 U. CHI. LEGAL. F. 437 (examining the inadequacies of choice-of-law rules in cyberspace); Keith Sharfman, *Regulating Cyberactivity Disclosures: A Contractarian Approach*, 1996 U. CHI. LEGAL. F. 639 (arguing for a internal, contractarian approach to cyberspace disclosure problems); But see Frank Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHI. LEGAL. F. 207 (suggesting that concentrating on cyberspace as a separate regulatory environment was like concentrating on the law of the horse, rather than the traditional doctrinal bodies of law affecting horses); Lawrence Lessig & Paul Resnick, *Zoning Speech on the Internet*, 98 MICH. L. REV. 395 (1999) (examining concept of zoning certain parts of cyberspace, notably pornographic content); Lawrence Lessig, *Reading the Constitution in Cyberspace*, 45 EMORY L.J. 869 (1996) (seeking to translate the Constitution into cyberspace, and effect the same protections online as offline) [Hereinafter Lessig, *Reading*]; John K. Halvey, *The Virtual Marketplace*, 45 EMORY L.J. 959 (1996) (examining the US regulatory response to electronic currency, and concluding that existing responses were appropriate); Scott K. Pomeroy, *Promoting the Progress of Science and the Useful Arts in the Digital Domain: Copyright, Computer Bulletin Boards, and Liability for Infringement by Others*, 45 EMORY L.J. 1035 (1996) (charting the application of copyright to BBSs, and implicitly assuming that the offline law applies online).

By 1998, the tide had turned. Jack Goldsmith, a conflicts lawyer, mounted an influential attack on those he labeled as "cyberspace regulation skeptics".[37] His argument was, essentially, that cyberspace created no problems that had not already been resolved by unexceptional jurisdictional rules, and legal mechanisms derived from conflict of laws.[38] Goldsmith challenged the descriptive argument underlying cyberspace self-regulatory theories: cyberspace was not, he argued, descriptively different from realspace. His conclusion was that transactions in cyberspace were no different from those occurring in the "physical space" of international trade or international crimes.[39] Since we are able to regulate these matters effectively and appropriately on a national basis, why should we treat cyberspace differently for the purposes of regulation and governance?

Following on from the descriptive challenge laid down by Goldsmith, Neil Weinstock Netanel attacked the normative basis for cyberspace self-regulation.[40] The core of the normative argument in favor of self-regulation is that "[g]overnments derive their just powers from the consent of the consent of the governed."[41] Netanel identified two specific normative claims that arose in the cyberspace environment based on this social-contractarian, bottom-up,

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37 Jack Goldsmith, *Against Cyberanarchy*, 65 U. CHI. L. REV. 1199, 1199-1200 (1998) [Hereinafter Goldsmith, *Against Cyberanarchy*]. *See, also,* Jack Goldsmith, *The Abiding Significance of Territorial Sovereignty*, 5 IND. J. GLOB. LEG. STUD. 475, 479 (1998) (arguing that Internet activities are functionally identical to these non-Internet activities and may be regulated in the usual manner); Jack Goldsmith, *Unilateral Regulation of the Internet: A Modest Defense,* EUROPEAN J. INT'L L. 11(1), 135-148 (2000) (same); Allan Stein, *The Unexceptional Problem of Jurisdiction in Cyberspace*, 32 INT. LAW. 1167, 1180 (1998) (arguing that the Internet is just a medium and is no different from the myriad of ways that people from one place injure people in other places).

38 Goldsmith, *Against Cyberanarchy*, *supra* note ___ at 1239-40 ("Transactions in cyberspace involve real people in one territorial jurisdiction either (i) transacting with real people in other territorial jurisdictions or (ii) engaging in activity in one jurisdiction that causes real-world effects in another territorial jurisdiction. To this extent, activity in cyberspace is functionally identical to transnational activity mediated by other means, such as mail or telephone or smoke signal").

39 *Id* at 1249-50.

40 Neil Weinstock Netanel, *Cyberspace Self-Governance: A Skeptical View from Liberal Democratic Theory*, 88 CAL. L. REV 395 (1999) (hereafter Netanel *Self-Governance*).

41 John Perry Barlow, *A Declaration of the Independence of Cyberspace*, *supra* note ___ (visited April 1, 2002).

governance approach.[42] First, is the claim that cyberspace self-regulation is the perfection of liberal rule, since it embodies the liberal democratic goals of individual liberty, popular sovereignty, and consent of the governed.[43] Second, is the claim that a truly liberal state grants autonomy to groups which seek it. If cyberspace then is a self-defining community, intrusion by a state amounts to a "colonial" usurpation of group norms and authority.[44] Netanel demonstrated that both of these claims were unfounded. He argued that a "unregulated" cyberspace would prove inimical to these liberal democratic ideals, in part due to the usual counter-majoritarian and tyrannical government concerns[45] pragmatic concerns with popular referenda[46] and theoretical problems with direct democracy,[47] *inter alia*.[48] As a result, state intervention was warranted under democratic theory in order to protect the ideals of liberalism.[49] Even if this were not to occur, Netanel argued that, in the absence of a state regulatory structure, cyberspace would develop its own quasi-state institutions. These institutions would demonstrate the same democratic deficits that formed the basis of the cyber-libertarian challenge on the state's regulatory legitimacy.[50] Far from being the perfection of liberal democratic ideals, he argued that cyberspace self-governance lead to a breeding ground for illiberal activities such as status discrimination, narrowing of content access, systematic invasions of privacy, and gross inequality.[51]

Though these two scholars remain the most influential critics of the idea that "cyberspace is, or should be, an autonomous regulatory sphere", other commentators fleshed out additional reasons why the early "cyberspace self-

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42 Netanel, *Self-Governance supra* note ___ at 402-3.

43 *Id.* at 402, 410-14,

44 *Id.* at 403, 446-51

45 *Id.* at 414-5, 421-27, 429-33.

46 Such as uneven voter turnout, ambiguous and misleading ballots, and so forth, *Id.* at 416-20

47 *Id.* at 419-21.

48 *Id.* at 403

49 *Id.* at 403-4.

50 *Id.* at 483-89

51 Netanel, *Self-Governance supra* note ___ at 497-8.

regulation" approach was problematic or flawed.[52] Most of these theorists did not argue directly against the "cyberspace as place" metaphor, confining themselves to discussing problems with the idea of online self-regulation. However, most of the approaches assumed that cyberspace self-governance arose because the self-regulation advocates considered cyberspace to be a separate place. Furthermore, two theorists, Andrew Shapiro and Timothy Wu, directly attacked the conception of cyberspace as place. Shapiro, the well-known author of the influential cyberspace policy book, THE CONTROL REVOLUTION,[53] argued against the metaphor of cyberspace as autonomous place.[54] His argument mirrors much of what was said elsewhere by "cyberspace self-governance" critics: what happens in cyberspace happens in the real world also,[55] cyberspace is not a real place but just a medium that we may control,[56] and so on.[57] He

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52 Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach*, 113 HARV. L. REV. 501, 505-6 (1999) ('Many believe that cyberspace simply cannot be regulated...This belief about cyberspace is wrong, but wrong in an interesting way. It assumes either that the nature of cyberspace is fixed – that its architecture, and the control it enables, cannot be changed – or that government cannot take steps to change this architecture.'); LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (1999); James Boyle, *Foucault in Cyberspace: Surveillance, Sovereignty, and Hardwired Censors*, 66 U. CIN. L. REV. 177 (1997); Julie E. Cohen, *A Right to Read Anonymously: A Closer Look at "Copyright Management" in Cyberspace*, 28 CONN. L. REV. 981 (1996); Julie E. Cohen, *Intellectual Privacy and Censorship of the Internet*, 8 SETON HALL CONST. L.J. 693 (1998); Lawrence Lessig, *Constitution and Code*, 27 CUMB. L. REV. 1 (1996-97); Lawrence Lessig, *The Limits in Open Code: Regulatory Standards and the Future of the Net*, 14 BERKELEY TECH. L.J. 759 (1999); Lawrence Lessig, *What Things Regulate Speech: CDA 2.0 vs. Filtering*, 38 JURIMETRICS J. 629 (1998); Andrew L. Shapiro, *The Disappearance of Cyberspace and the Rise of Code*, 8 SETON HALL CONST. L.J. 703 (1998); Philip E. Agre, *Life After Cyberspace*, 18 EASST Rev. (Sept. 1999) http://www.chem.uva.nl/easst/easst993.html; Lawrence Lessig, *The Zones of Cyberspace*, 48 STAN. L. REV. 1403, 1404 (1996); Timothy S. Wu, *Note, Cyberspace Sovereignty?--The Internet and the International System*, 10 HARV. J.L. & TECH. 647 (1997); See also Margaret Jane Radin & R. Polk Wagner, *The Myth of Private Ordering: Rediscovering Legal Realism in Cyberspace*, 73 CHI-KENT L. REV. 1295 (1999) (arguing that private regulation online operates within context of public regulatory structure, as for the real world); A Michael Froomkin, *Of Governments and Governance*, 14 BERKELEY L. & TECH. J. 617 (1999).

53 ANDREW L. SHAPIRO, THE CONTROL REVOLUTION: HOW THE INTERNET IS PUTTING PEOPLE IN CHARGE AND CHANGING THE WORLD WE KNOW. (1999) (arguing that the Net creates positive effects in society, but also some problems such as control, personalization, and so forth).

54 Andrew L. Shapiro, *The Disappearance of Cyberspace and the Rise of Code*, 8 SETON HALL CONST. L.J. 703, 709 (1998) [Hereinafter Shapiro, *Disappearance*].

55 Shapiro, *Disappearance*, *supra* note __ at 704-11.

56 Shapiro, *Disappearance*, *supra* note __ at 711-13.

suggested that we are not well-served by the idea of "cyberspace as an autonomous place",[58] and that "cyberspace is not elsewhere."[59]

Wu argued much the same, suggesting that it is no longer possible to conceive of cyberspace as an autonomous place—"the general sense of Cyberspace as one place is missing"[60]—and further that the metaphor of cyberspace as place was dead:

> The metaphor of place did not exactly stand the test of time. For the Internet, as a whole, did not develop into a kind of other-world kingdom inhabited by netizens; or even, more modestly, develop a real "commons." Yes, many years ago, the mainstay of Internet usage was community-based and somewhat place-like. Users were fewer, more similar in personality, and there was little reason to log on if it wasn't to interact (there was nothing else to do). But the early users of the Internet notwithstanding, the Internet was never designed to be "like" a place. It was designed to be a multiple-use network, capable of supporting any kind of application anyone wanted to run on it...The metaphor and the technology never matched.[61]

It now should be clear why defending the idea that "cyberspace is a place" appears quixotic. The received wisdom is now that cyberspace is not a place, and cannot be regulated separately from realspace. As Shapiro points out, the metaphor just did not seem to stand the test of time.

B. Reconsidering Autonomy and Place

Shapiro, Wu, and the others peddling the received wisdom are wrong. They confuse the idea of cyberspace autonomy with the idea that we might think that cyberspace has the characteristics of a place. I do not argue that cyberspace

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57 Including a discussion of why we do not regulate alphabets independently of laws that rely on alphabets for communication, see Shapiro, *Disappearance supra* note __ at 712-5. And an analysis of regulation of cyberspace generally, see Shapiro, *Disappearance*, *supra* note __ at 715-21.

58 Shapiro, *Disappearance*, *supra* note __ at 709.

59 Shapiro, *Disappearance*, *supra* note __ at 710.

60 Wu, *First Met*, *supra* note ____ at 171.

61 *Id*. at 172-3.

should be self-regulated. I do argue, as a matter of brute descriptive fact, that cyberspace is treated exactly as if it were a physical place, by judges, legislators, lawyers, and lay-people. If we look at how people discuss their online interactions, we find a vast amount of evidence that people think about online communications, transactions, and even life, as occurring in some place. The place may be inchoate and virtual, but this makes it no less real in our minds.

If we set aside the issue of how we regulate cyberspace, the question remains as to what evidence there is for us thinking of cyberspace as though it were a place. Later in this Article I explain both the theory underlying this assertion,[62] and extensive evidence of it in law.[63] However, some evidence is necessary here, since my claim runs counter to the theories described above. Consider then, the way in which everyone talks about events, transactions, and systems that exist or occur online. At it most fundamental, think of the term *web*,[64] an allusion to the "web-like" connections between computers.[65] What about the *Net*, referring to the network of connections, and also to the net-like character of the material caught in the network.[66] We *surf* this *web*, *moving* from one *site* to the next, *entering* or *visiting* the site,[67] or, in the slightly old-fashioned nomenclature, someone's *homepages*.[68] We *hang out in chatrooms* communicating with our

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62 *Infra* Part II.

63 *Infra* Part III.

64 In this paragraph, all italics indicate terms which have physical connotations.

65 Mark Sableman, *Linked Law Revisted: Internet Linking Law at Five Years,* 16 BERKELEY TECH. L.J. 1273, 1274 (2001) (referring to Tim Berners-Lee thinking of developing the Web to facilitate making connections between computers).

66 Rachel Jane Posner, *Manipulative Metatagging, Search Engine Baiting, And Initial Interest Confusion,* 33 COLUM. J.L. & SOC. PROBS. 439, 444 n.25 (2000) (noting the difference between the Net, computers connected through cables; and the Web, where connections are hyperlinks); Xuan-Thao N. Nguyen, *Shifting the Paradigm in E-Commerce: Move Over Inherently Distinctive Trademarks—The E-Brand, I-Brand, and Generic Domain Names Ascending to Power?,* 50 AM. U. L. REV. 937, 948 (2001) (explaining that the net is a network of computers).

67 American Civil Liberties Union v. Reno, 31 F. Supp.2d 473, 486 (E.D.Pa. 1999) (mentioning the activity of browsing or surfing the Web). See also Michael J. Brady, et. al., *The World Wide Web and the New World of Litigation: A Basic Introduction,* 66 DEF. COUNS. J. 497, 511-512 (1999) (describing how hyperlinks allow the visitor to "surf the web," transparently moving from site to site by simply clicking on the hyperlinks).

68 Ford Motor Co. v. Great Domains, Inc., 141 F. Supp.2d 763, 775 (E.D.Mich. 2001) (noting homepages for Ford dealerships, inter alia).

online buddies.[69] We *roam around* multi-user *dungeons and domains* (MUDs and MOOs).[70] Software programs called *robots*, or *agents*, or *spiders*, are allowed to *crawl* over websites,[71] except where they barred by terms and conditions of *entry* or *access*,[72] or by the robot *exclusion* standard.[73] We *navigate* the *web*,[74] using computer programs with names like *Navigator* and *Explorer*.[75] We use Uniform Resource *Locators*[76] and *domain* names,[77] to find our way. Information is sent to

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69 People v. Barrows, 677 N.Y.S.2d 672, 678-679 (N.Y.Sup.1998) (explaining how chatrooms or cyberchats function).

70 Patrick F. McGowan, *Global Trademark and Copyright 1996: Management and Protection. The Internet and Intellectual Property Issues,* Practising Law Inst. PLI Order No. G4-3981 (Oct. 1996) (enumerating different activities to do on the internet including roaming around); Robert M. Kossick, *The Emerging Disharmony of Electronic Commerce Legislation in Latin America,* 9 TUL. J. INT'L & COMP. L. 387 (2001) (referring to MUDs and MOOs).

71 Ticketmaster Corp. v. Tickets.Com, Inc., No. CV99-7654-HLH, 2000 U.S. Dist. LEXIS 12987, at *8 (C.D. Cal. Aug. 10, 2000) (speaking of "webcrawlers" or "spiders", computer devices to obtain information by opening up an interior web page and reading the information off the screen); eBay, Inc. v. Bidder's Edge, Inc., 100 F. Supp.2d 1058, (N.D.Cal. 2000) (explaining the function of a software robot and giving the different names assigned to them: spiders, web crawlers, etc.); EF Cultural Travel BV v. Explorica, Inc., 274 F.3d 577, 579 (1st Cir. 2001) (noting the use of bots for screen scraping).

72 Register.com, Inc. v. Verio, Inc., 126 F. Supp.2d 238, 245 (S.D.N.Y. 2000) (referring to WHOIS database terms and conditions to entry into the web-enabled database).

73 Typically by online Terms of Use (see Infra Part IV); or via the robots.txt file on the website, see the Robot Exclusion Standard, available at http://info.webcrawler.com/mak.projects/robots/norobots.html (visited 1 April, 2002). For legal implications see eBay, Inc. v. Bidder's Edge, Inc., 100 F. Supp.2d 1058, 1061 (N.D.Cal. 2000) (use of robot exclusion standard as basis for de-authorizing access to public database).

74 American Civil Liberties Union v Reno, 117 S.Ct. 2329 at 2343. ("Navigating the Web is relatively straightforward.")

75 Old hands may recall that when Microsoft finally got the Net, its slogan changed to "Where do you want to go today?" See e.g. Richard Philip Rollo, *The Morass of Internet Personal Jurisdiction: It is Time for a Paradigm Shift,* 51 Fla. L. Rev. 667, 668 (1999) ("When Bill Gates posed the question, "Where do you want to go today?" in Microsoft's advertising campaign for the Windows95 operating system, few people would have answered, "to court in a distant state.""").

76 America Online, Inc. v. Huang, 106 F. Supp.2d 848, 849 (E.D.Va. 2000) (defining domain names, URL, and http); Eolas Technologies, Inc. v. Microsoft Corp., No. 99 C 0626, 2000 WL 1898853, at *1 (N.D.Ill. Dec. 29, 2000) (defining URLs and its function).

77 Virtual Countries, Inc. v. Republic of South Africa, 148 F. Supp.2d 256, 260 (S.D.N.Y.2001) (considering the inclusion of geographical terms within the domain name system); Kenneth L. Port, *Japanese Intellectual Property Law in*

us using hypertext *transport* protocol (http) or simple mail *transport* protocol.[78] We use email *addresses*[79] to send messages to others, and the machines themselves use IP *addresses*.[80] We log *into* or log *onto* our Internet Service Provider.[81] Malignant wrongdoers *access* our accounts, hack *into* the system, using *backdoors*, *trapdoors* or stolen *keys*,[82] and engage in computer *trespasses*.[83]

The point here is not to document exhaustively all of the evidence that we hold a conception that cyberspace is a place. Rather, this is merely a short demonstration that the very language we use in discussing cyberspace is shot through with physical references. Indeed, even those who explicitly argue against cyberspace as place, find it impossible to talk about internet regulation without invoking spatial references. For example, when arguing in favor of setting aside public forums on the Internet, Andrew Shapiro specifically applied the metaphor of CYBERSPACE AS PLACE—including references to online bookstores, online shopping malls, meandering down the cyberspace boulevards, and so on.[84]

Translation: Representative Cases and Commentary, 34 VAND. J. TRANSNAT'L L. 847, 883-884 (2001) (describing the function of domain names).

78 America Online, Inc. v. Huang, 106 F. Supp.2d 848, 849 (E.D.Va. 2000) (defining domain names, URL, and http); Eolas Technologies, Inc. v. Microsoft Corp., No. 99 C 0626, 2000 WL 1898853, at *1 (N.D.Ill. Dec. 29, 2000)(explaining the HTTP function).

79 Sprint Corp. v. DeAngelo, 12 F. Supp.2d 1188, 1992 (D.Kan. 1998) (explaining e-mail addresses function); Hotmail Corp. v. Van$ Money Pie Inc., No. C-98 JW PVT ENE, 1998 WL 388389, at *8 (N.D.Cal. Apr. 16, 1998) (speaking of e-mail addresses in the context of spam e-mails).

80 Columbia Ins. Co. v. seescandy.com, 185 F.R.D. 573, 575 (N.D.Cal.1999) (describing the function and characteristics of IP addresses).

81 SightSound.Com Inc. v. N2K, Inc., 185 F. Supp.2d 445, 462 (W.D.Pa. 2002); Bell Atlantic of Maryland, Inc. v. Intercom Systems Corp., 782 A.2d 791, 806 (Md. 2001).

82 DONN B. PARKER, FIGHTING COMPUTER CRIME—A NEW FRAMEWORK FOR PROTECTING INFORMATION (1998) at 90-91.

83 *Infra* Part III.B.

84 Andrew L. Shapiro, *Street Corners In Cyberspace*, available at http://www.corpwatch.org/trac/internet/whoowns/streetcorners.html (visited April 1, 2002) ("you use a computer and modem to go on-line and enter a virtual world called Cyberkeley. As you meander down the sidewalk, you find a post office, libraries and museums, shopping malls full of stores, and private clubs that service a limitless variety of clientele, from those who want spiritual guidance, tips on gardening or legal advice to those with a penchant for live sex

All of the above evidence proves little on its own. We need some more comprehensive account of why we think of cyberspace as a place, and some indication that our linguistic utterances reflect a deeper understanding of cyberspace. This account is provided by cognitive psychological theories of how we construct our understanding of the world. These theories—theories which focus on the importance of physical metaphors in our cognitive processes—form the subject matter of Part II.

II. MORE THAN COOL REASON

> Lovers and madmen have such seething brains,
> Such shaping fantasies, that apprehend
> More than cool reason ever comprehends.[85]

Even the most fastidiously objective lawyer must agree that metaphor is useful in law, as it is in all language. To say that we will "pierce the corporate veil" is more evocative than saying we will "make company shareholders or directors personally liable for defaults of a company." Or suggesting that a particular case is "seminal" or the "touchstone" of its field carries more meaning than merely saying that the case is important.

Metaphors are more evocative, and conjure up more associations, than their purely literal counterparts. But is this all they do? Are they merely rhetorical "flourishes," which may leaven language, but which are not vital to the way that we express or even conceive ideas? For a very long time, this was the accepted view in philosophy, and linguistics. At its most charitable, this view suggested that metaphor was sometimes useful, but never essential, to the way we express

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> or racist hatemongering. You also encounter vibrant public spaces -- some large like a park or public square, others smaller like a town hall or street corner. In these public forums, some people are talking idly, others are heatedly debating social issues. A few folks are picketing outside a store where hard-core pornography is sold, others are protesting the post office's recently increased mail rates and one lone activist outside the Aryan Militia's hangout hands out leaflets urging racial unity. Most people are just passing through, though you and they can't help but take notice of the debaters, the demonstrators, even the leafleter.")

85 WILLIAM SHAKESPEARE, MIDSUMMER NIGHT'S DREAM , Act V, Scene i.

ideas. The view was also held that metaphor was not necessary for us actually to *think* our ideas. When not being generous, this theory's focus on the persuasive character of metaphor lead to its denigration even as a form of speech. Metaphors and other rhetorical features were "devices" thought to mislead and deceive, and were thus the subject of great opprobrium.

In the last few decades, linguists, philosophers and cognitive scientists have suggested that metaphor is more central to language and thought than the prior conception would have it. Within philosophical and cognitive science circles, metaphor has been rehabilitated, and become the subject of great interest. Metaphor has been seen to reflect our thinking, and to shape it in subtle ways not captured by a purely literal conception of thought. Metaphor studies have burgeoned, and now form a major category of study in the philosophy of language, in linguistics and in cognitive science.[86]

However, this renewed interest seems to have passed law by. Few legal articles and fewer books devote themselves to a serious study of recent metaphor theories. There is still a general perception that law is a "serious" and objective study that should eschew figurative language as much as possible. Many would agree that, in making law, we should prefer the solid and secure land of the literal, to the fluid and dangerous sea of metaphor.[87]

The purpose of this Part is to challenge this perception. I demonstrate here that metaphor is central to legal thinking. I argue that metaphors form a structuring constraint that profoundly influences the legal decision-making process. I show, by reference to modern theories of mind, that metaphors are part of a larger cognitive model that we all hold, and that they are not merely rhetorical devices. Part II.A therefore discusses how metaphors structure our thinking about the world. Here I examine the pervasive presence of metaphor in our thinking, and explain one particular cognitive science theory of how metaphors drawn from our physical world affect abstract thinking. Part II.B

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86 See the vast number of works cited in the bibliographies of W.A. SHIBLES, METAPHOR: AN ANNOTATED BIBLIOGRAPHY AND HISTORY (1971), J.P. VAN NOPPEN, METAPHOR: A BIBLIOGRAPHY OF POST-1970 PUBLICATIONS (1985) and J.P. VAN NOPPEN & E. HOLS, METAPHOR II: A CLASSIFIED BIBLIOGRAPHY OF PUBLICATIONS, 1985-1990 (1990).

87 BENJAMIN N. CARDOZO, THE NATURE OF THE JUDICIAL PROCESS, 166 (1921).("I was much troubled in spirit, in my first years upon the bench, to find how trackless was the ocean on which I had embarked. I sought for certainty. I was oppressed and

demonstrates how these physical metaphors are fundamental to understanding how judges, lawmakers, and lawyers think about the law. I explain the application of these theories to legal reasoning by demonstrating the role that metaphor plays in well-understood areas of law. The example used is the metaphor, THE CORPORATION IS A PERSON, a physical metaphor that is a staple of corporate law.

The purpose of this Part is, therefore, to explain the role of physically-based metaphors in constraining legal thinking, and demonstrate its importance in the well-understood area of corporate law. Then, in Part III this new appreciation of metaphor will illuminate how we structure our understanding of cyberspace and the legal issues around it.

A. Thinking in Metaphors

> We cannot get through three sentences of ordinary fluid discourse without [metaphor].[88]

I.A.Richards, one of the seminal philosophers of metaphor, suggested that metaphor is so central to our ability to express ideas that we cannot speak without relying on metaphorical concepts. A cynically "objective" lawyer might question the importance of metaphor and would probably disagree with Richards' assertion. A quick glance at any newspaper would show her wrong. The text of newspapers is replete with metaphorical expression, yet the use of metaphor is so widespread and commonplace that we barely recognize that the language is metaphorical and not literal. For example, take a front page of *The New York Times* at random.[89] It was a "feast" of metaphors:[90]

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disheartened when I found that the quest for it was futile. I was trying to reach land, the solid land of fixed and settled rules...")

88 I.A.RICHARDS THE PHILOSOPHY OF RHETORIC, 92 (1936).

89 *New York Times*, March 15, 2001. This just happened to be the newspaper I was reading on the day I wrote this section. Other days, other papers, and indeed all other language, are equally full of metaphor. To give another example, some years ago I undertook an analysis of an English newspaper in the same way. This newspaper was the *The Guardian* of Friday 6 March 1998. The metaphorical usage of the front page of this paper was as follows: Water had

President Bush *sounds* concern with the stock *market tumbling*, amid *growing* fears of economic problems associated with the *steep sell-off* of stocks. He *conveyed* a *glancing* sense of optimism, after allegedly *talking down* the economy as a way of *building support* for his tax cut.

Yugoslavian troops had re-entered the *zone* bordering Kosovo because of *spreading* attacks by gunmen on the *outskirts* of certain towns. With *Belgrade run* by democrats, the soldiers sought to *seal* routes against smugglers.

In Laredo, TX, the *fruits* of NAFTA trading were *choking* the city, with the *sprawl* of warehouses and the *burdens* of NAFTA and trucking causing damage. Local Interstates to *points north*, especially the north-south *artery* were *backed up* with 18-wheelers, since Laredo is the *hand-off point* for trade between Mexico and the US. A *Bush administration*[91] was negotiating the problem with Mexico.

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been discovered on the moon. It was thought to be our *passport* to the planets. It meant that the Moon is *a stepping-stone* that is *calling us* into space. The water *opens the way* for settlement of our *nearest neighbor* and *opens up* space for us. We could expect a *rush* of interest in exploration, perhaps leading even to an *epic number* of rocket launches to the *high frontier*. It made the moon a *petrol station* where we can *fuel up*. Since humans need to *top up* on four or five pints of water a day, the discovery provided a *means of survival*. The finding removed two *barriers* to Moon settlement, and destroyed the myth that the moon is as dry as *concrete*. In other news, the Freemasons had finally *surrendered* a list of names to a House of Commons Committee which was investigating *links* between Masons and a *disbanded* and *discredited* police squad. The Masons *released* the names as a deadline *loomed*. They *expressed* disquiet and described this as a *challenge* to, and an *erosion* of, their basic rights, as well as being an *invasion* of privacy. Elsewhere on the front page, a company *backs* a lottery game; the CIA was training others in the *art* of interrogation; Denzel Washington was a *brick*; and The Guardian won a *raft of honours* for *dogged* journalism, outstanding narrative *flow*, and *colourful* writing which sent *shockwaves* through *Whitehall*.

90 As in the examples given in Part I.B *supra*, all terms with metaphorical content are italicized.

91 Some people might take exception at the suggestion that the use of expressions "run," "Belgrade", "backed-up", and "Bush administration" are metaphorical. These are metaphors, but they can be understood as "conventional" metaphors: metaphors that are so commonly used that we do not even think of them as metaphorical at all. Indurkhya was surprised when a referee of his marvelous METAPHOR AND COGNITION (1992) objected to his characterization of the following as metaphorical: "The chairman plowed through the agenda." Though there is the literal meaning of plow, being "to turn the earth", Indurkhya notes that: "...one reviewer of this manuscript objected to my using the...statement as an example of metaphor...To her, the...description of a meeting was not metaphorical at all", B. INDURKHYA, METAPHOR AND COGNITION: AN INTERACTIONIST APPROACH (1992). The same is true of the conventional metaphors I use here, such as "Belgrade", "Bush administration", and so forth. "Belgrade" is a conventional metaphor meaning the government or sovereign power of Serbia. (Actually, in the traditional nomenclature, this would actually be called a metonym. However the traditional distinctions between the different types of metaphor -- metonym, synecdoche, catachresis, etc -- is unimportant for my purposes). We say "the Bush administration negotiated with Mexico" when what we really mean is "A representative of the US Federal government, especially the Bush-appointed executive standing as the sovereign in respect of this transaction, negotiated with her equivalent in the Mexican government, etc etc".

Our cynical lawyer may suggest that this florid language is restricted to newspapers.[92] Surely we would not find this in law, that bastion of objectivity? Taking a few pages of a case at random,[93] we find the same thing. Lying in front of me is the Supreme Court decision entitled *George W. Bush* v. *Albert Gore, Jr.*[94] In this case, the judges talk of *margins of victory*,[95] one party *winning* the electoral *race*,[96] *diminished margins*[97] as a consequence of the *undervotes*[98] or possibly *overvotes*,[99] the *deadline*[100] for election *returns*,[101] the *sharp focus*[102] of

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Indurkhya explains that: "Conventional metaphors are those metaphors that are so much a part of everyday speech that they seem hardly metaphorical...Conventional metaphors are evidence to the fact that metaphoric transference is not something confined to poetry and literature, but is very much part of our everyday speech." INDURKHYA, *supra* note ____, at 1-2.

92 Or may even suggest that the metaphor habit is restricted to that bastion of flowery rhetoric, the *New York Times*. Consider then the business newspaper *Financial Times* of the same day, March 15, 2001. The following metaphors were used on the front page of the US edition: Global equity *markets* were in *turmoil* as the NASDAQ *fell back* below 2000, while investors were *seeking safe havens* of government bonds, *pushing up* the bond rate; the *Wall Street falls* had a *knock-on effect* on Japanese stocks and sent European *markets* into a *tailspin*, as the *bear market dropped* prices *sharply* lower; US farm lobbyists *pushed* for emergency payments *on top* of existing subsidies; the likelihood of OPEC *cutting* output *strengthened* as *weaker* global *demand* for oil was reported; Carmakers *told* the *Bush administration* of their successes; and so on. What about the *Wall Street Journal*? Same day, front page: California *shares* Indonesia's *pain*, and if lucky may *skirt recession*; Toyota *wins high marks* on quality surveys; Mozambique gets a *small taste of hope*. Et cetera, et cetera.

93 I have not fixed the outcome of this. The case mentioned was the first one that I had to hand. As for note ____ *supra*, I undertook the exercise for an old English case that I happened to be reading for other purposes. The English case, *Wells v Hopwood* (1832) 3 B & Ald 20, is an old insurance case dealing with a ship's stranding at low tide. I looked at pages 25 - 30 (about two pages in the English Report reprint) and discovered the following metaphorical use in the stolid English Admiralty Court of 1832: The ship was *laid aground* after *she* was made *fast* at pier. She was *compelled* by the weather to go to a *basin* where she was damaged after the tide *left her*. She was moored at her *head* but put her *forefoot* on a *bank* of stones and was damaged. The exception in the contract was *destroyed*, *in favor* of other clauses, and the *operation* of the policy was not affected. And so on.

94 *George W. Bush, et al.,* v. *Albert Gore, Jr. et al.*, 121 S.Ct.525, 2000 U.S. LEXIS 8430, 148 L.Ed.2d 388, 69 U.S.L.W. 4029 (2000)

95 *Id at* 528.

96 *Id*.

97 *Id*.

98 *Id* at 531-2.

99 *Id* at 531.

100 *Id* at 528.

the issues, the *exercise*[103] of federal functions, the *branches*[104] and *machinery*[105] of government (which needs a little *play* in its *joints*),[106] the *safe harbor* provisions of 3 U.S.C. § 5,[107] the *weight*[108] of each vote, and the *discharge*[109] of duties of electors; to say nothing of the usual legal metaphors of *petitions* for *relief*,[110] *vesting* of powers,[111] *reversing*[112] or *vacating*[113] decisions, examination of the *holdings*[114] of prior cases, and so forth.

I have belabored the point here in order to demonstrate that metaphors are omnipresent; to show that in fields as diverse as journalism, and law—or even science[115]—we use metaphor constantly, and unconsciously. Then there is, of course, the field of literature, where the discipline depends almost entirely on

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101 *Id*.

102 *Id* at 529.

103 *Id* at 533, per Rehnquist CJ

104 *Id* at 534, per Rehnquist CJ; *Id* at 540 , per Stevens J

105 *Id* at 541, per Stevens J.

106 *Id* at 541, per Stevens J.

107 *Id* at 534, 538, per Rehnquist CJ

108 *Id* at 529.

109 *Id* at 533, per Rehnquist CJ

110 *Id* at528.

111 *Id* at 533, per Rehnquist CJ

112 *Id*. at 539, per Rehnquist CJ

113 *Id*. at 537, per Rehnquist CJ

114 *Id* at 535, per Rehnquist CJ

115 K.K. Cetina, *Metaphors in the Scientific Laboratory: Why are they there and what do they do?*, in Z. RADMAN ed., FROM A METAPHORICAL POINT OF VIEW: A MULTIDISCIPLINARY APPROACH TO THE COGNITIVE CONTENT OF METAPHOR 329 (1995) (discussing example of *wave* and *packet* theories of light, sub-atomic particles have *color*, *charm* and *spin*, etc); M.B. HESSE, MODELS AND ANALOGIES IN SCIENCE (1966); M.B. Hesse, *Models, Metaphors and Truth*, in FROM A METAPHORICAL POINT OF VIEW: A MULTIDISCIPLINARY APPROACH TO THE COGNITIVE CONTENT OF METAPHOR 351 (Z. Radman, ed., 1995); G. Holton, THEMATIC ORIGINS OF SCIENTIFIC THOUGHT (1973); G. HOLTON, *Metaphors in Science and Education*, in FROM A METAPHORICAL POINT OF VIEW: A MULTIDISCIPLINARY APPROACH TO THE COGNITIVE CONTENT OF METAPHOR 259 (Z. Radman, ed., 1995); .M. Soskice & R. Harré, *Metaphor in Science*, in FROM A METAPHORICAL POINT OF VIEW: A MULTIDISCIPLINARY APPROACH TO THE COGNITIVE CONTENT OF METAPHOR 289, 297-302 (Z. Radman, ed., 1995).

figurative language.[116] The point here is that metaphors are not rhetorical flourishes used in, say, commentary about sports—"You live by the 3-point shot, you run the risk of dying by it"[117]—but instead are embodied in the language we use everyday, and its use often goes unrecognized.

Our cynical lawyer might still hold to the view that metaphor is just a linguistic device. Indeed this has been the commonly-held conception of metaphor for thousands of year, in both philosophical and legal thinking. Philosophy has shown an historical distrust of metaphor. John Locke had a particularly jaundiced view of rhetoric, which marks one highpoint of the dislike for metaphor:

> But yet if we would speak of things as they are, we must allow that...all the artificial and figurative applications of words eloquence hath invented, are for nothing else but to insinuate wrong ideas, move the passions, and thereby mislead the judgement; and so indeed are perfect cheats...[T]hey ...cannot but be thought a great fault either of the language or the person that makes use of them.[118]

The distrust has been widespread and longstanding. Its earliest expression can be found in Socrates and Plato, particularly in Plato's quarrel between "philosophy and poetry" and the suggestion in *The Republic* that: "[The poets'] art corrupts the minds of all who hearken to them, save only those whose knowledge of reality provides an antidote."[119] However, in Ancient Greece rhetoric was seen as a powerful form of argumentation, and not merely a persuasive trick. Thus, Aristotle suggested a more positive view: "...the greatest thing by far is to be master to metaphor. It is the one thing that cannot be learnt from others; and it is also a sign of genius, since a good metaphor implies an intuitive perception of

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116 There are so many references to the use of metaphors in literature, that it is pointless to single any out. However, in Part II.A*. below, I discuss the work of GEORGE LAKOFF & MARK TURNER, MORE THAN COOL REASON: A FIELD GUIDE TO POETIC METAPHOR (1989) and show how, in both law and literature, metaphors demonstrate a balance between complete freedom of expression and the constraints of how we think.

117 Joe Drape, *Duke Going With New Math: Counting by 3's to the Crown*, N.Y.TIMES, March 15, 2001, D1.

118 JOHN LOCKE, AN ESSAY CONCERNING HUMAN UNDERSTANDING, Vol. II 146-7 (Oxford, Clarendon Press, 1894).

119 PLATO, THE REPUBLIC, 285.

the similarity in dissimilars."[120] Nonetheless, all shared a view of metaphor that emphasized its linguistic *deviance* from proper or ordinary usage. Aristotle's *Poetics*, on which much of the traditional view of metaphor is based, suggested that metaphor consisted of giving one thing a name that "properly belonged to something else."[121]

The metaphor-as-deviance conception gathered strength: in the seventeenth century the model of language and language-comprehension came to be based on mathematics. The Age of Reason did not value even the (subsidiary) persuasive aspects of metaphor which the Ancient Greeks admired. Hence was born the suspicion of metaphorical language, shown in Locke's "perfect cheats' metaphor.[122] The Age of Reason took as its foundation the idea that rational thought was the highest human virtue, and that rhetorical embellishments merely flawed or masked the perfection of properly reasoned thought.

Literal language became increasingly valued, just as figurative expression became more and more suspect. Ideal language philosophy and logical positivism in the twentieth century simply concluded the work that had been done for centuries.[123] Both movements shared the view that language is fundamentally literal, and sought to express what was true and verifiable.[124] Since metaphors are inevitably not literally true,[125] and they have troubling referents, they were seen as descriptively meaningless and not worthy of

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120 Aristotle, *Prior Analytics and Poetics*, in THE BASIC WORKS OF ARISTOTLE 1459a (R. McKeon ed., 1941).

121 *Id.* at 1459. For a discussion of Aristotle's view, see WAY, *supra* note ___, at 3.

122 Locke's use of a metaphor to attack metaphors is amusing. Whether this was intentionally or accidentally ironic is lost to history.

123 See WAY, *supra* note ___, at 3-5.

124 MARK JOHNSON, ed., PHILOSOPHICAL PERSPECTIVES ON METAPHOR (1981).

125 Take the metaphor "Richard is a wolf." This generates the T-sentence:

"Richard is a wolf" is true iff Richard is a wolf.

Man is not a wolf, and so the expression "Man is a wolf" is not true. For a defense of the use of T-sentential logic, and what I have called the substitutionalist approach see D. DAVIDSON, *What Metaphors Mean*, 5 CRITICAL INQUIRY 31 (1981) and D. ROSS, METAPHOR, MEANING AND COGNITION (1993). There are, of course, cases where a metaphor might be interpreted as literally true ("Richard" being the name of a pet wolf) but these are aberrant examples, and indeed are not even metaphors properly defined.

study.[126] Though logical positivism is no longer a dominant force in philosophy, the legacy of it and hundreds of years of "logical" thinking about figurative language remains. As Mark Johnson notes:

> Although positivism is officially dead, its influence is still very much with us, and is one of the chief obstacles to an adequate understanding of metaphor. With a few important exceptions...twentieth century Anglo-American thinking about metaphor has been emasculated, narrowed, and inhibited by logical positivist views of language and is therefore either hostile or patronizing towards figurative expression.[127]

Johnson calls this the "literal-truth paradigm": the idea that the human conceptual system is fundamentally literal.[128] This means that appeals to figurative language in philosophical discussion are wrong or inappropriate, since the literal is at the heart of human thinking.

However, the literal-truth paradigm has increasingly come under attack. This movement can be traced back as far as the fundamental, but initially ignored, book of I.A. Richards.[129] In THE PHILOSOPHY OF RHETORIC,[130] Richards presented a number of ideas that have become fundamental to our current model of metaphor. First, he insisted that metaphors are not merely linguistic devices; they are in fact cognitive constructs:

> The traditional theory...made metaphor seem to be a verbal matter, a shifting and displacement of words, whereas fundamentally it is a borrowing between and intercourse of *thoughts*, a transaction between

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126 JOHNSON, *supra* note ____, at 16.

127 JOHNSON, *supra* note ____, at 16.

128 JOHNSON, *supra* note ____, at 12.

129 Actually, it can be traced farther back than Richards. Both Kant and Nietzsche probably held views of metaphor contrary to the literal-truth paradigm, see JOHNSON, *supra* note ____, at 14-15 (noting that Kant rejected the idea that metaphorical expression is reducible to literal concepts, since metaphorical expression was an aspect of the irreducible capacity for creativity; and that Nietzche thought that metaphor was not a linguistic entity but a process by which we experience the world); INDURKHYA, *supra* note ____, at 7 (explaining why Kant's CRITIQUE OF PURE REASON implicitly contains a version of the interaction theory of cognition and metaphor) However, these ideas of Kant and Nietzche were never taken up by the philosophers of the day, and it was not until late in the Twentieth Century that ideas like these came to be acceptable within mainstream philosophical thought.

130 I.A. RICHARDS, THE PHILOSOPHY OF RHETORIC (1936).

> contexts. *Thought* is metaphoric...and the metaphors of language derive therefrom.[131]

The previous "literal-truth" view held that thought was literal, and metaphors were figurative linguistic devices which our literal-cognitive system generated. Richards stood this order on its head: according to him, the cognitive system was in part metaphoric, and figurative language was a reflection of our figurative cognitive system.

Second, and as a corollary of this, Richards suggested that metaphors were not superficial flourishes with which we might dispense. Even at the level of the merely linguistic, he suggested that metaphor was fundamental: it is, he said, "the omnipresent principle of language."[132] So important is metaphor, "[w]e cannot get through three sentences of ordinary fluid discourse without it".[133] He was the first to suggest what I noted above; that we use metaphors ubiquitously and unconsciously in ordinary expression. So much do we do so, that if asked whether the language of law, science, or news relied fundamentally on metaphor we should probably say no.

Finally, Richards introduced a conception of metaphor that still holds great power: he said that metaphor was the interaction of "two thoughts of different things active together..."[134] This idea captures the currently favored view of metaphor, and indeed the name of the theory uses his word: it is known as the interaction theory. Thus Richards[135] overturned the literal-truth conception of thinking and especially metaphor, and provided the basis for our modern understanding of metaphorical inference.

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131 *Id.* at 94.

132 *Id.* at 92.

133 *Id.* at 92.

134 *Id.* at 93.

135 Max Black adopted Richard's approach and became in fact the main proponent of the theory, . BLACK, MODELS AND METAPHORS (1962). However it was Richards who first challenged the literal-truth conception as it applied to metaphor, and paved the way for our current understanding of metaphor.

B. Metaphors We Live By

In the section that follows, I discuss the interaction theory of cognitive metaphors. This is not, by any means, a complete account of metaphor. In 1962 Max Black[136] discovered Richards's early book on metaphor[137] and in so doing rescued metaphor from the philosophical and psychological doldrums. Since then, metaphor studies have burgeoned: the most recent bibliography on metaphor lists over 4000 works directly on the topic.[138] The analysis which follows is, therefore, a radically circumscribed account which discusses one major approach, since it is the most salient to legal reasoning and thinking.

There are of course, many different ways of thinking about metaphor: its literary usage, its social function, its philosophical basis,[139] its psychological-motivational force, or how humans comprehend it.[140] In this section, I look to the interaction theory which discusses the role that metaphor has in structuring the way we think.[141] Other major approaches exist, such as emotive, tension,[142] and

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136 MAX BLACK, MODELS AND METAPHORS (1962).

137 RICHARDS, *supra* note ____.

138 VAN NOPPEN & E. HOLS, *supra* note ____. See also the other bibliographies cited *supra* note ____.

139 DAVIDSON, *supra* note ____; ROSS, *supra* note ____.

140 A. Paivio and M. Walsh, *Psychological Processes in Metaphor Comprehension and Memory*, in METAPHOR AND THOUGHT 307, 308-9 (A. ORTONY, ED. 2nd ed. 1993).

141 This is now a typical approach: see WAY, *supra* note ____, INDURKHYA, *supra* note ____, and the collected works in A. ORTONY ed., METAPHOR AND THOUGHT (2nd ed. 1993), Z. RADMAN, FROM A METAPHORICAL POINT OF VIEW: A MULTIDISCIPLINARY APPROACH TO THE COGNITIVE CONTENT OF METAPHOR (1995) and D.S. MIALL ed., METAPHOR: PROBLEMS AND PERSPECTIVES, (1982). This is to be contrasted with, say, the literary/philosophical approach of Scott Brewer, *Figuring the Law: Holism and Tropological Inference in Legal Interpretation*, 97 YALE L.J. 823 (1988) (suggesting that metaphor in law operates by a process of "tropological inference.") .

142 Emotive and tension theories posit that metaphors are deviant uses of literal language, in keeping with the "literal truth paradigm." The emotive theory is distinguished by its adherence to the notion that metaphors play no role in our thinking and merely "excite the emotions." The tension theory holds that metaphors are only interesting in that they force the hearer to try to resolve the dissonance generated between the target and source: "Juliet is not the sun, so in what respect might she be like the sun?" The tension theory is closely related to the emotive theory because it suggests that metaphors are purely aesthetic, and exist only for the pleasure of the person making or hearing the metaphor. Metaphor plays no other rôle. Both emotive and tension theories suggest that metaphor has no cognitive significance apart from the need to resolve the ambiguity inherent in the metaphor. Unfortunately, this does not

anomaly theories,[143] or the substitution[144] and comparison[145] theories of metaphor. However these all have extensive limitations which render them

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really explain why metaphors should be used at all. The utterer of the metaphor is presumed merely to like the aesthetic tension or the emotions that the metaphor generates. This is a weak answer, and one that has increasingly come to be disregarded.

143 Anomaly theories are exemplified by Beardsley's approach: M.C. BEARDSLEY, AESTHETICS: PROBLEMS IN THE PHILOSOPHY OF CRITICISM (1958); M.C. Beardsley, *The Metaphorical Twist*, in PHILOSOPHICAL PERSPECTIVES ON METAPHOR 105 (M. Johnson ed., 1981). They are closely related to emotive and tension theories. Anomaly theories rely on the idea that a metaphor is a semantic category mistake: to say that "men are wolves" violates the established categories we have for men and wolves, and we are therefore forced to look for a secondary meaning. How we resolve these meanings differs depending on the theorist. Some of the more sophisticated anomaly theorists grant some importance to metaphor as part of our cognitive system, For example A. Ortony, *Beyond Literal Similarity*, 86 PSYCHOL. REV. 161 (1979). At this point they begin to rely on either the substitution or interactionist approaches to flesh out the role in the cognitive system. I can therefore safely ignore the anomaly approaches since I am interested in examining the role that metaphor plays in the legal thinking, and these theories are not useful for this purpose. Anomaly theories furthermore have significant problems which militate against their adoption. For example, reliance on semantic category mistakes fails to account for metaphor where both literal and metaphorical interpretations are possible at once, as in the case of all puns; expressions like "the rain dampened the festivities" or "the old rock is getting brittle" (remarking on a geology professor, see M. Reddy, *The Conduit Metaphor: A Case of Frame Conflict in our Language About Language*, in METAPHOR AND THOUGHT 164 (2nd ed. 1993)); and the figurative readings of Miller's *The Crucible* (an attack on McCarthyism), Carroll's *Alice in Wonderland* (a parody of philosophy of language), Orwell's *Animal Farm* (an attack on communism) and *The Wizard of Oz* (which can be read as an attack on the abandonment of the Gold Standard in the US, see INDURKHYA, *supra* note ___, at 1). For a longer analysis of the anomaly, emotive and tension theories see WAY, *supra* note ___, at 30-33, 41-46.

144 Dr Johnson, in common with much of his age, adopted the substitution theory when he said that metaphor was "a sort of happy extra trick with words,...a grace or ornament, or *added* power of language, not its constitutive form." See RICHARDS, *supra* note ___, at 90. The substitution theory holds that all metaphors are merely an oblique way of saying what could otherwise be said literally. This theory relies on the idea that a literal expression can be substituted for any metaphor. This can seen as directly stemming from the "literal truth" view of language, since it is literal language which are "words proper," rather than metaphors which take a name which "properly belongs to something else". In essence, the approach assumes the Aristotelian view that a metaphor takes the name which *properly* belongs to something else. There are significant problems with the substitution theory. First, if one accepts the theory, there is the question of why metaphor exists at all (See WAY, *supra* note 21, at 33, SOSKICE & HARRÉ, *supra* note ___, at 290). If one can say anything literally, why would one use such the roundabout, deviant, non-proper metaphorical form? The typically supposed answer is, like the tension and emotive theories, reliant on some aesthetically pleasing aspect of metaphor. As Black scathingly says: "[T]he reader is taken to enjoy problem solving—or to delight in the author's skill at half-concealing, half revealing his meaning. Or metaphors provide a shock of "agreeable surprise" and so on. The principle behind these "explanations" seems to be: When in doubt about some peculiarity of language, attribute its existence to the pleasure it gives a reader. A

principle that has the merit of working well in default of any evidence." BLACK, *supra* note ___, at 34. The second problem is that of the cognitive content of metaphor. The substitution theory grants no cognitive content to a metaphor outside its literal meaning. But this does not accord with our sense, when reading literature, poetry, or even legal texts, that a well-crafted metaphor carries with it something more than its simple literal meaning. "Juliet is the sun" not only carries the meaning that she brings light to Romeo's life, but also that she is constant, present in his life each day, that her absence turns his world to darkness, that she provides the basis for life, and so forth. (On multiple interpretations of this metaphor, see J.R. SEARLE, METAPHOR AND THOUGHT 96 (1993): "Cavell (1976, 78-9) gives as part of its explanation that Romeo means that his day begins with Juliet. Now, apart from the special context of the play, that reading would never occur to me. I would look for properties of the sun to [substitute].") And these interpretations are just mine: many other meanings have been ascribed to this simple metaphor. Related to this concern, is the practical difficulty of coming up with a ready literal expression for a great many metaphors. What literal expression adequately captures the meaning of "A stubborn and unconquerable flame Creeps in his veins and drinks the streams of life"? (Quoted in RICHARDS, *supra* note ___.) Or even the simpler expression that a "boy in his fiery youth stands on the giddy brink of life"? Finally, there is difficulty of the truth-literalness of the substitution theory. If all metaphors are substituted for literal expressions then we should see some evidence that literal language is the predominant method of cognition. However, no evidence points in this direction. Lakoff and Johnson have shown that metaphors are central to our cognitive system, and not a superficial artifact superimposed after a supposedly literal-based cognitive processing, see Part II.C. *infra*. Further, reaction time studies have shown that processing metaphorical expressions takes no more time than processing literal expressions, M. KEYSAR, *On the Functional Equivalence of Literal and Metaphorical Interpretations in Discourse*, 28 J. MEMORY & LANGUAGE 375 (1989); D. GLUCKSBERG AND B. KEYSAR, *Understanding Metaphorical Comparisons: Beyond Similarity*, 97 PSYCHOL. REV. 3 (1990); D. GLUCKSBERG et al., *On Understanding Nonliteral Speech: Can People Ignore Metaphors?*, 21 J. VERBAL LEARNING & VERBAL BEHAVIOUR 85 (1982). The implication of this is that the literal is not necessarily the basic mechanism of thought.

145 In the comparison theory, metaphor is held to be a type of condensed literal comparison or simile. So, when we say that "Juliet is the sun" we know that she is not actually the sun. We are stating, elliptically, that "Juliet is *like* the sun." A metaphor thus becomes a condensed or elliptical simile: we merely forget to include "like" or "as" when making the comparison. The one major benefit this has over the substitution theory is that it recognizes that metaphors compare two things for similarity, rather than substituting one term or expression for another. It thus captures some of the flexibility inherent in metaphorical language: for Romeo, Juliet is similar to the sun in a number of ways. However, just like the substitution theory, the comparison view still holds that there is some literal equivalent possible for each metaphor which exactly captures the sense of the metaphor. SEARLE, *supra* note ___, at 87-9 dismantles this approach by demonstrating its imability to compare extended metaphors such as those we find in poetry (His example being Emily Dickinson's "My Life had stood - a Loaded Gun"). The second problem for the comparison theory is caused by its reliance on a metric of similarity. Similarity is a symmetrical relation, and to say that *X* is similar to *Y*, is to say that *Y* is similar to *X*. Hence, on the comparison thesis, to say that "Juliet is the sun" is to say that "Juliet is like the sun" and therefore also to say "The sun is like Juliet." Though we might agree with the former simile, few would subscribe to the latter. The comparison theory suffers from a second problem with similarity: the "relevant attribute choice" issue. To say that something is "like" another thing is empty, as two things are similar in an infinite number of ways, N. GOODMAN, *Seven Strictures on Similarity*, in PROBLEMS AND PROJECTS (1972), SEARLE, *supra* note ___, L.

implausible as theories of metaphor generally,[146] and specifically make them unsuitable for application to law.

1.Interaction Theories of Metaphor

To understand interaction theories, we first need to consider some initial technical terminology.[147] We use the terms *target* and *source* for the "two halves of metaphor."[148] In any given metaphor, the target is the principal subject. The source—which carries the metaphor—is the domain from which the salient features are drawn and then attributed to the target. So, in the simple metaphor

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ALEXANDER, *Bad Beginnings*, 145 U. PA. L. REV. 57 (1996), S. BREWER, *Exemplary Reasoning: Semantics, Pragmatics and the Rational Force of Legal Argument by Analogy*, 109 HARV. L. REV. 923 (1996). From this infinity of possible similar features, which is the appropriate attribute to choose in interpreting a metaphor as an elliptical simile? The final problem with the comparison theory revolves around what has been called the "most interesting of metaphors," those which *create* similarity, SOSKICE & HARRÉ, *supra* note ___, at 290. Indurkhya demonstrates, through a series of examples, that metaphors do not just rely on existing similarity relations, but can create previously unthinkable relations, INDURKHYA, *supra* note _____. In these situations there is, quite simply, no literal equivalent which can be used for the purpose of the comparison. Comparison theorists have a hard time explaining how to resolve this difficulty.

146 For sophisticated defenses of this position see DAVIDSON, *supra* note ___; ROSS, *supra* note ___; E.F. KITTAY, METAPHOR: ITS COGNITIVE FORCE AND LINGUISTIC STRUCTURE (1987); E.F. KITTAY, *Metaphor as Rearranging in the Furniture of the Mind: A Reply to Donald Davidson's "What Metaphors Mean"* in FROM A METAPHORICAL POINT OF VIEW: A MULTIDISCIPLINARY APPROACH TO THE COGNITIVE CONTENT OF METAPHOR 55 (Z. Radman, ed., 1995). These elaborate defenses not relevant to the argument here. There is a variant of the comparison theory, called the analogy theory which, though interesting, is not held by many. For an exposition and dismantling of it, see WAY, *supra* note ___, at 35, 39.

147 The same terminology is used for analogy, cementing the similarity between the two processes of reasoning. See Hunter, *supra* note ___ at _____.

148 I.A. RICHARDS, THE PHILOSOPHY OF RHETORIC (1936). Richards, in common with others, actually uses *tenor* and *vehicle* for *target* and *source*, respectively. *infra.* p. 96. I prefer the use of target and source used by Indurkhya, *supra* note ___ at 14-17, LAKOFF & TURNER, *supra* note ___, at 38-40. This is the convention used in analogy research. The consistent use of the same terms in metaphor and analogy will highlight the connection between the two fields. It will also avoid the confusion introduced by multiple nomenclatures. Max Black, an important theorist in metaphor, was particularly prone to this, introducing "frame", "focus", "primary subject", and "secondary subject." Beardsley introduced "subject", "modifier" and "connotations." Some add "ground" to the tenor and vehicle, and so forth. For a description of these approaches, see E.C. WAY,

"lawyers are pigs", "lawyers" is the target and "pigs" is the source. The source imports a host of features associated with "pigs" without seeking to draw an identity-relation between lawyers and pigs. The associations here might include "has rapacious appetite", "has non-discriminating taste, "eats at the trough," "grows fat," "fails to do any work," and even perhaps "has an absence of personal hygiene." However, not all metaphors are as simple as this example, and many involve hidden targets, secondary sources, and many more complex elements which need not detain us.[149]

It is fundamental to interaction theories that: "...what is expressed by metaphor can be expressed in no other way. The combination effected by the metaphor results in a new and unique agent of meaning."[150] In the interaction theory, the source and target interact: the ideas, the "associated commonplaces," and the implications of the source domain are projected onto the target, and vice versa.[151] Max Black calls these features the "implication-complex" to emphasize that they

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KNOWLEDGE REPRESENTATION AND METAPHOR 28-30 (1991). They are not useful to this discussion.

149 An example by way of passing: take the line of poetry from Richards: "A stubborn and unconquerable flame Creeps in his veins and drinks the streams of life." In this case, the target is not mentioned: it is the fever, and the source which carries the metaphor is the "stubborn and unconquerable" flame. So the target is unmentioned, though completely understood. Equally there is the secondary source of a beast which creeps in the fevered-person's veins; as well as a separate (though not distinct) second metaphor of blood (target) as a flowing stream (source). For a more thorough analysis of this metaphor, see WAY *supra* note ____ at 28-9.

150 SOSKICE & HARRÉ, *supra* note _____, at 291.

151 I stress here the effect that the source has upon the target. However, the interaction theory takes its name from the idea that the target and source "interact." Black's account holds that the relationship also works in the other way: that the target also influences the source. On this interpretation, upon hearing the "man is wolf" metaphor, our view of a wolf is also changed to adopt man-like features ("If to call man a wolf is to put him in a special light, we must not forget that the metaphor makes the wolf seem more human than he otherwise would." BLACK, *supra* note ____, at 44 and "[The interaction] reciprocally induces parallel changes in the [vehicle]". BLACK, *supra* note _____, at 28.) While the interaction theory has come to hold center stage in metaphor accounts—see SOSKICE & HARRÉ, *supra* note ____, at 292—this feature of the theory has come under significant criticism, INDURKHYA, *supra* note 17, at 68, SOSKICE & HARRÉ, *supra* note ____, at 292. In its suggestion of a two-way interaction, it falls into much the same trap as the comparison theory's requirement of symmetrical similarity. Recall that it surely cannot be the case that "the sun is like Juliet", *supra* note ____. Various approaches have been suggested which ameliorate the effect of this problem, most of which are not relevant here. Instead, I shall follow Indurkhya and suggest that Black's notion of filtering and projection resolves much of the problem, INDURKHYA, *supra* note ____, at 69. The technical reason for this is beyond the scope of a law review article.

are a *set* of features that affect the interpretation of the target.[152] He explains this by suggesting that the implication-complex must be a system rather than an individual thing. So for instance, "man is a wolf" is not about the wolf *qua* thing, but rather the system of relationships that are signaled by the presence of the word "wolf." When we hear the metaphor, we are influenced by all the commonplaces of the source system. The source system selects, and emphasizes some features of the target system, while suppressing others.[153] So we interpret "wolf" on the basis of our knowledge and "associated commonplaces" about wolves. When presented with the metaphor, we are immediately assailed with recollections about wolves being "ferocious, territorial, and possessive." The source selects and emphasizes those "wolf-like" aspects which are already present in our view of man.[154]

Black's interaction theory[155] articulates two fundamental features of metaphor that are not explained by other theories: the effect of the source domain's implication complex on the target domain, and the concept that the metaphor creates something new in cognitive processes and is not merely a transmission or reflection of some other term.[156] However, what it fails to do is explain why we chose the metaphors we do. This is where the most prominent modern theorists emerge, Professor George Lakoff and his colleagues, Mark Johnson and Mark Turner.

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152 M. BLACK, *More About Metaphor*, in METAPHOR AND THOUGHT 19, 27-8 (A. Ortony ed., 2nd ed. 1993). For the sake of clarity, in describing Black's view I have not used his numerous variants in nomenclature.

153 In *id.* at 27, Black retracted his suggestion that the target be a system, and suggested it must be a single entity. INDURKHYA, *supra* note ____, at 73 rescues the target system as a valuable concept by suggesting that they may work at different levels. He also shows, neatly, that the interpretation of metaphors relies on the target having an independent system of its own; otherwise it would be impossible for there to be any constraint in the interpretation of metaphor. I shall thus assume that there is a system for both the source and target.

154 Note of course that the associated commonplaces may be wrong, as studies of wolves show them to be anything but inherently ferocious, or possessive. As long as the commonplaces are commonly held, then their accuracy is irrelevant.

155 As modified by various commentators, most notably INDURKHYA supra note ____.

156 See discussion of other theories, notes ____, ____, and ____ *supra*.

2. Lakoff and Metaphor

Lakoff and his colleagues[157] have amassed a large body of empirical data which supports a form of interactionist theory of metaphor.[158] Their influential theory has a number of distinguishing features; but it is most notable for its assertion that our everyday concepts are structured and molded by a series of cognitive metaphors which all human beings share. Their cognitive metaphors are not simply metaphors like Shakespeare's "Juliet is the sun" or Justice Cardozo's "trackless ocean of law." Instead, they look to general conceptual metaphors which organize our thinking.[159] These metaphors break down into various types, most of which stem from our physical experiences as humans in the world. These conceptual cognitive metaphors are reflected in linguistic utterances; that is, what we would normally think of as a "metaphor." In Lakoff's system, the cognitive system is metaphorical, and the language reflects this.

Lakoff suggests therefore that we can excavate the underlying conceptual metaphorical structures, by a close examination of our use of language: "Since metaphorical expressions in our language are tied to metaphorical concepts in a systematic way, we can use metaphorical linguistic expressions to study the nature of metaphorical concepts and to gain an understanding of the metaphorical nature of our activities."[160]

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157 G. LAKOFF, WOMEN, FIRE AND DANGEROUS THINGS (1987); G. LAKOFF & M. JOHNSON, METAPHORS WE LIVE BY (1980); LAKOFF & TURNER, *supra* note ___, M. Turner, *Categories and Analogies*, in ANALOGICAL REASONING: PERSPECTIVES OF ARTIFICIAL INTELLIGENCE, COGNITIVE SCIENCE, AND PHILOSOPHY 3 (D.H. Helman ed., 1988), M. JOHNSON ed., PHILOSOPHICAL PERSPECTIVES ON METAPHOR (1981), M. JOHNSON, THE BODY IN THE MIND (1987). I will hereafter simply refer to "Lakoff" but this should be taken to include his colleagues who advance similar approaches to metaphor and the embodiness of cognitive processes.

158 Lakoff disputes whether his theory is an interaction theory LAKOFF & TURNER, *supra* note ___, at 131-3 but this characterization seems to be more to do with his unhappiness with the symmetrical requirement in Black's view of metaphor, see INDURKHYA, *supra* note ___, at 81. Since I have already dismissed this requirement, *supra* note _____, for my purposes the Lakoffian view fits within the interaction school.

159 "Therefore, whenever...we speak of metaphors...it should be understood that *metaphor* means *metaphorical concept*." LAKOFF AND JOHNSON, *supra* note _____, at 6.

160 LAKOFF AND JOHNSON, *supra* note ___, at 7.

An example may make the approach clearer. According to Lakoff, we all hold a communal, cognitive conceptual metaphor that ARGUMENT IS WAR. We see this metaphorical structure reflected in language thus:

> —Your claims are *indefensible*.
> —He attacked every weak point in my argument.
> —His criticisms were *right on target*.
> —I *demolished* his argument.
> —I've never *won* an argument with him.
> —You disagree? Okay, *shoot*!
> —If you use that *strategy*, he'll *wipe you out*.
> —He *shot down* all of my arguments.[161]

Lakoff is not saying that we actually view arguments *exactly* as war. Rather, he suggests that features from the source domain (WAR) are mapped onto the target (ARGUMENT). Thus, we cognitively structure our perception of arguments in terms that adopt elements of war; and this structuring is reflected in our use of language.

We see the same metaphor in the construction of the common law trial system: thus LEGAL ARGUMENT IS WAR. Apart from the historical significance of the violence attendant on legal process[162] and the idea of medieval "trial by battle"[163] which was a possible mode of trial in some common law jurisdictions until 1819,[164] there is the fact that the system is *adversarial*, that attorneys go off to *do battle* or *go into combat* with the *other side*; that in the English system Queen's Counsel *lead* junior barristers; that attorney's offices have *war rooms* for big pieces of litigation; that one party *wins* the case; and so forth.

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161 LAKOFF AND JOHNSON, *supra* note ____, at 4.

162 "[The] principal object [of the appeal of felony in Norman and Angevin times] was retribution, the invaluable satisfaction to be gained from annihilating an aggressor by legal process." J.H. BAKER, AN INTRODUCTION TO ENGLISH LEGAL HISTORY 413 (2nd ed. 1979).

163 "The proper mode of trial was not the jury...but *battle*; and the delays and evasions which accompanied *judicial combat* made the proceedings cumbersome..." Emphasis added. *Id.* at 414.

164 G. CROSS & G.D.G. HALL, RADCLIFFE AND CROSS ON THE ENGLISH LEGAL SYSTEM 19 n. 2 (4th ed. 1964).

Lakoff's great advance was to demonstrate through a large body of empirical linguistic evidence that metaphors such as these are not free-form. That is, he exposed the fact that the utterer of a linguistic metaphor was constrained in the content of the metaphor by a cognitive conceptual metaphor that is commonly held. Lakoff showed that linguistic metaphors are consistent with these physical cognitive concepts. This is demonstrated most compellingly in a study of poetry. At first blush, we might consider that poets are free to invent any metaphor they choose. However, Lakoff and Turner explain:

> [W]e make a distinction between basic conceptual metaphors, which are cognitive in nature, and particular linguistic expressions of these conceptual metaphors. Thus, though a particular poetic passage may give a unique linguistic expression of a basic metaphor, the conceptual metaphor underlying it may nonetheless be extremely common.[165]

The salient points in this are to recognize, first, that metaphors are not just linguistic devices: they actually form part of the core of our cognitive conceptual system. Thus, conceptual metaphors form an important part of any model of legal reasoning, and will be particularly important to my model of cyberspace regulation.[166] Second, Lakoff and Turner make the vital point that all humans share a system of conceptual metaphors, even if the individual linguistic utterances may be unique. This requirement of sharing imposes a very great constraint on the types of reasoning which we may undertake. We readily understand the allusions inherent in Emily Dickinson's poem "Because I Could Not Stop For Death,"[167] since we share a metaphor that LIFE IS A JOURNEY. We would have a harder time understanding a poem structured around a metaphor LIFE IS THE SKY, since this is not a metaphor which we hold as a shared construct.

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165 LAKOFF & TURNER, *supra* note ____, at 50.

166 *Infra* Part III.

167 "Because I could not stop for Death, |He kindly stopped for me; | The carriage held but just ourselves | And Immortality.

We slowly drove, he knew no haste, |And I had put away | My labor, and my leisure too, | For his civility.

We passed the school where children played, | Their lessons scarcely done; | We passed the fields of gazing grain, | We passed the setting sun.

We paused before a house that seemed | A swelling of the ground; | The roof was scarcely visible. | The cornice but a mound.

Since then 'tis centuries; but each | Feels shorter than the day | I first surmised the horses' heads | Were toward eternity."

This general observation about the importance of the construction of conceptual metaphors cashes out in a specific way: what Lakoff and Turner call "structural mapping". They discuss a number of poems, such as Emily Dickinson's "Because I Could Not Stop For Death," which presents life as travel.[168] They note that, in comprehending these poems, we are using the LIFE IS A JOURNEY metaphor that people commonly hold. But what does "use" mean, in this context. They suggest that this involves identifying the structural elements of the metaphor, and then mapping the source elements (our knowledge of journeys) onto the target (the poem about life). Thus: all journeys have well-differentiated structural elements, such as beginning, middle and end; all journeys have travelers; there are impediments on the road of life; and so on..[169]

In using this metaphor, we map the source onto the target. In so doing, we generate new thoughts about the way in which the target works, which were not there in the first place. [170]

The process of mapping leads to the identification of new features in the metaphor which are brought over, when the metaphor is made. Thus, the simple LIFE IS A JOURNEY metaphor leads to all manner of additional inferences, such as the person is spinning her wheels, there is a roadblock that she has to get over, and so on. I will shortly argue that we see the same thing happening in law, particularly in the new field of cyberspace regulation. The metaphor CYBERSPACE AS PLACE lead to a series of metaphorical inferences: cyberspace is like the physical world, it can be "zoned", trespassed upon, interfered with, and

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168 LAKOFF & TURNER, *supra* note _____, at 1-56, 60-63.

169 This corresponds with Schanks' model, used in artificial intelligence. For its use in law, see JOHN ZELEZNIKOW & DAN HUNTER, BUILDING INTELLIGENT LEGAL INFORMATION SYSTEMS—REPRESENTATION AND REASONING IN LAW (1994).

170 LAKOFF & TURNER, *supra* note ____, at 62 ("Part of the power of such a metaphor [LIFE IS A JOURNEY] is its ability to *create* structure in our understanding of life. Life, after all, *need* not be viewed as a journey. It *need* not be viewed as having a path, or destinations, or impediments to travel, or vehicles. That structuring of our understanding of life comes from the structure of our knowledge about journeys. When we reason about life in terms of destinations, forks in the road, roadblocks, guides, and so on, we are importing patterns of inference from the domain of journeys to the domain of life. For example, we can infer from the facts that someone is spinning his wheels that he is not getting anywhere and will not reach his destination. We can infer from the fact that someone has hit a roadblock that if he is to continue on he must deal with it in some way: remove it, get over it, get around it, or find another route. Much of our reasoning about life involves inferences of this sort. Thus, the power to reason about so abstract an idea as life comes very largely through metaphor.")

divided up into a series of small landholdings that are just like real world property holdings.

Before turning to cyberspace, it is worthwhile to consider the application of this sort of metaphor to law, and specifically see how it is used in framing legal analysis. In the section that follows I therefore demonstrate how Lakoffian metaphor can be used to understand corporate law regulation.

C. Metaphors We Adjudicate By

> We live in a magical world of law where liens float, corporations reside, minds hold meetings, and promises run with the land. The constitutional landscape is dotted with streams, walls, and poisonous trees. And these wonderful things are cradled in the seamless web of law.[171]

This final section of Part II demonstrates how interaction theories of cognitive metaphor can be applied to law and legal reasoning, in order to understand how we think of law.

Until recently metaphors in law have led a beleaguered existence. This is hardly surprising: law is a serious business, demanding "objective" and "rational" language and thought. As we saw above, metaphors are thought to be deviant language, taking a name which properly belongs to something else. In law, we have seen a reluctance to admit metaphorical usage, and at various points a demand to root them out altogether. Lord Mansfield insisted that "...nothing in law is so apt to mislead than a metaphor."[172] Justice Benjamin Cardozo thought legal metaphors to be dangerous: "A metaphor...is, to say the least, a shifting test whereby to measure degrees of guilt that mean the difference between life and death."[173] He worried that a certain legal problem was "...one that is still enveloped in the mists of metaphor" and went on to warn that "Metaphors in law

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171 See T. Ross, *Metaphor and Paradox*, 23 GA. L. REV. 1053, 1053 (1989) [Hereinafter Ross, *Paradox*].

172 Id at 1057 n.9.

173 Benjamin Cardozo, *What Medicine Can Do for Law*, in LAW AND LITERATURE 100 (1930).

are to be narrowly watched, for starting as devices to liberate thought, they end often by enslaving it."[174]

This reluctance to surrender to metaphor is seen also in learned legal scholarship, most notably in the work of the legal theorist Wesley Hohfeld. Hohfeld was concerned to systematize legal relationships, and to drive out the imprecise terminology which he thought lead to sloppy thinking.[175] In so doing he reserved special opprobrium for metaphor: agreeing with Lord Mansfield's dictum[176] and creating his own: "Chameleon-hued words are a peril both to clear thought and to lucid expression."[177] His efforts to devise a legal logic of rights, duties, powers and immunities led—just as we saw above in scientific logic[178]—to a distrust and dislike for metaphorical language and thought.

However, in keeping with the changed perception within philosophy, psychology, and cognitive science, we have recently witnessed an awakening of interest in metaphor within legal scholarship, sometimes discussing the use of metaphor generally in law[179] or more often pointing out the dangerous legal implications of certain metaphors.[180] Of these articles, the most important are by Steven

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174 *Berkey v Third Ave Ry.*, 244 N.Y. 84 at 94-5; 155 N.E. 58 at 61. It seems impossible to believe that Cardozo could have failed to notice the irony of warning against metaphor using a sentence that (1) applies the striking metaphor of enslavement; and (2) followed his use of the delightful "mists of metaphor" metaphor.

175 Wesley N. Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 22 YALE L.J. 16 (1913) [Hereinafter Hohfeld, *Fundamental I*]; Wesley N. Hohfeld, *Fundamental Legal Conceptions as Applied Judicial Reasoning*, 26 YALE L.J. 710 (1917) [Hereinafter Hohfeld, *Fundamental II*];; WESLEY N. HOHFELD, FUNDAMENTAL LEGAL CONCEPTIONS AS APPLIED IN JUDICIAL REASONING, AND OTHER ESSAYS (1923).

176 HOHFELD *Fundamental II*, *supra* note ____, at 711 n.4.

177 HOHFELD *Fundamental I*, *supra* note ____, at 28.

178 *Supra* Part II.A.

179 J.G. Deutsch, *Law as Metaphor: A Structural Analysis of Legal Process*, 66 GEO L.J. 1339 (1978), B. Hibbitts, *Making Sense of Metaphors: Visuality, Aurality, and the Reconfiguration of American Legal Discourse*, 16 CARDOZO L. REV. 241 (1994), Minda, *supra* note ____; J.E. Murray, *Understanding Law as Metaphor*, 34 J. LEG. ED. 714 (1984) [Hereinafter Murray, *Understanding*]; Winter, *Standing*, *Agon*, *Nonsense*, *Bull Durham*, *Death*, *Power*, *supra* note ____.

180 See e.g. M. Boudin, *Antitrust Doctrine and the Sway of Metaphor*, 75 GEO. L.J. 395 (1986); J.F. Childress, *Triage in Neonatal Intensive Care: The Limitations of Metaphor*, 69 VA. L. REV. 547 (1983); David Hamer, *The Continuing Saga of the Chamberlain Direction: Untangling the Cables and Chains of Criminal Proof*, 23 MONASH U. L. REV. 43 (1997); B. Henley, *"Penumbra": The Roots of a Legal Metaphor*,

Winter[181] and it is little surprise that he adopts the work of Lakoff and applies it to law.[182]

How then can the Lakoffian view of metaphor be of assistance in understand how lawyers, judges, legislators, and scholars think about law? The next section takes one example of a well-known area to demonstrate the approach.

1. The CORPORATION AS PERSON metaphor.

> Instead of addressing itself to such economic, sociological, political, or ethical questions as a competent legislature might have faced, the court [in *Tauza* v. *Susquehanna Coal Co*] addressed itself to the question, 'Where is a corporation?'... Clearly the question of *where a corporation is* ... is not a question that can be answered by empirical observation ... Nobody has ever seen a corporation. What right have we to believe in corporations if we don't believe in angels?[183]

The term "corporation" betrays its metaphorical content, and the legal principle which follows from it. Its Latin root, *corporatus*, means "made into a body"[184] and refers to the group of individual shareholders who became one in the *corpus* or body of the company. The CORPORATION AS PERSON is one of the strongest

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15 HASTINGS CONST. L.Q. 81 (1987); J.B. WHITE, WHEN WORDS LOSE THEIR MEANING, (1984); M.G. Duncan, *In Slime and Darkness: The Metaphor of Filth in Criminal Justice*, 68 TUL. L. REV. 725 (1994); G. Minda, *The Law and Metaphor of Boycott*, 41 BUFF. L. REV. 807 (1993).

181 Winter, *Standing*, *Agon*, *Nonsense*, *Bull Durham*, *Death*, *Power*, *supra* note ___.

182 Many of the other works which attempt to explain the effect of metaphor in law are hamstrung by their adoption of outmoded metaphor theories, *supra* note ___ and ___. Ross adopts the comparison theory (Ross, *supra* note ___, at 1057 n.10 "This...explanation and each of the other particular ways of understanding our metaphors discussed in this essay are taken in large measure from the metaphor scholarship of others...[A particular argument] is taken in part from the notion of metaphor as a condensed simile...") while Murray accepts the tension theory (Murray, *supra* note ___, at 719: "The theory advanced here is that the tension theory of metaphor...can help us better understand law.") As explained *supra*, note ___ and ___ both of these theories are seriously flawed.

183 Felix Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV.809, 810-11 (1935) [Hereinafter Cohen, *Nonsense*].

184 Sanford A. Schane, *The Corporation is a Person: The Language of a Legal Fiction*, 61 TUL. L. REV. 563, 565 (1987) [Hereinafter Schane, *Corporation*].

metaphorical constructions in law, and has been described as one of the most enduring of legal institutions and most widely accepted legal fictions.[185]

We might first think that this metaphor was a simple legal invention that we created to encourage investment in this institution. Further, we might hold as true, the standard Supreme Court pronouncement on the CORPORATION AS PERSON metaphor given by the then Chief Justice Marshall: "A corporation is an artificial being, invisible, intangible, and existing only in contemplation of law. Being the mere creature of law, it possesses only those properties which the charter of its creation confers upon it."[186] Using this as a base, we might agree with the dismissive, pragmatic view of the magisterial John Dewey:

> In saying that "person" might legally mean whatever the law makes it mean, I am trying to say that "person" might be used simply as a synonym for a right-and-duty-bearing unit. Any such unit would be a person; such a statement...would convey no implications, except that the unit has those rights and duties which the courts find it to have. What "person" signifies in popular speech, or in psychology, or in philosophy or morals, would be as irrelevant...as it would be to argue that because a wine is called "dry," it has the properties of dry solids...Obviously, "dry" as applied to a particular wine has the kind of meaning, and only the kind of meaning, which it has when applied to the class of beverages in general. Why should not the same sort of thing hold of the use of "person" in law?[187]

Sanford A. Schane's exemplary study[188] demonstrates however that both Chief Justice Marshall and Professor Dewey are wrong. The metaphor is not merely a fiction, created out of legal "whole cloth." Instead, Schane shows that the metaphor accords with generally-held conceptions that humans have about institutions. Through linguistic examples he traces how we refer to institutions made up of a number of individuals as though they were a single unit or person.[189] For example in some situations it is quite common to refer to institutions using singular verbs and pronouns:

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185 *Id.* at 563.

186 *Trustees of Dartmouth College* v. *Woodward*, 17 U.S. (4 Wheat) 518 (1819) per Chief Justice Marshall at 636.

187 John Dewey, *The Historic Background of Corporate Legal Personality*, YALE L.J. 655 (1926).

188 Schane, *Corporation, supra* note ___.

189 Schane, *Corporation supra* note _____, at 595-609.

—The law school *has* sent *its* vote to the administration.

—The faculty *is* suing *its* architect.

—The University *believes* that *it* must raise tuition and increase *its* endowment.

From these and from more complex examples, Schane argues that "[t]he human mind does attribute shared properties to corporations and persons"[190] and further that "[t]he law did not invent the linguistic imagery of the corporation as a person. Rather, it capitalized on a natural propensity already within language."[191] Schane is correct, but he does not go on to ask from whence the "natural propensity" in language stems. Taking his work as a starting point, we can extend it using the Lakoffian approach. A number of metaphorical entailments stem from the structural metaphor of the CORPORATION AS PERSON. Think of the judicially imposed exception where members of a company are made personally liable for the company's actions.[192] This is called "piercing the corporate veil." This stems from the CORPORATION AS PERSON metaphor: the corporation has a body and, *a fortiori*, a face. Moreover this is extended to give the corporation a female body, and the corporation is so chaste she wears a veil to cover her face. In looking to ascribe personal liability, the veil is "pierced" which cannot help but connote that violence is being done on the *corpus* (body) of the company.[193] It is hardly surprising then that the veil is pierced infrequently, and only under the most unusual circumstances.[194]

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190 Schane, *Corporation supra* note _____, at 595. For an earlier formulation of a similar proposition, see A.W. Machen, *Corporate Personality*, 24 HARV. L. REV. 253, 263 (1911): "When a jurist first said, "A corporation is a person," he was using a metaphor to express the truth that a corporation bears some analogy or resemblance to a person, and is to be treated in law in certain respects as if it were a person, or a rational being capable of feeling and volition."

191 Schane, *Corporation supra* note _____, at 595.

192 See R.B. Thompson, *Piercing the Corporate Veil: An Empirical Study*, 76 CORN. L. REV. 1036.

193 Though it would be too much for me to suggest that the relative reluctance on the part of judges to pierce the veil is due to this image of violence, it would surprise me if it did *not* have an effect. It would be an interesting study to see whether the alternative expression, "lifting the corporate veil," which does not have such violent connotations occurs more often in judgments where individual liability was ascribed. But such a study is beyond the scope of this Article.

194 See the empirical analysis of the American experience in Thompson, *supra* note ____. There are, of course, good policy reasons for not piercing the veil. I

Another entailment of the CORPORATION AS PERSON metaphor is the question of physical presence of corporation. Obviously a person must have an embodiment, and a corporation should have some physical analogue. When the Supreme Court in *Burnham*[195] decided that physical presence in a state was sufficient for that state to have jurisdiction over individuals, the question arose as to the links necessary for jurisdiction over companies. The author of at least one article was troubled by the question: "The result of using "presence" as an alternative basis for jurisdiction could lead to many instances of unlimited jurisdiction over large corporations in virtually every state."[196]

The problem of the physical embodiment of the corporation for the purposes of jurisdiction is real. In the US, Australia, and other countries where there exist a confederation of states having control over companies the problem has a venerable provenance. There has long been a "legal fiction"[197] of a company being "present" in a jurisdiction where it is incorporated, or if it is doing business in the state, or has significant links.[198] The actual principle is not relevant to this discussion: what matters here is that corporate presence is such a vital, difficult and important question. It is barely to be credited that there would be a need to expend so much energy on determining the "presence" of an obviously intangible entity. However, once we commit to the CORPORATION IS A PERSON metaphor then we are obliged to give it physical presence.

I can therefore suggest that Professor Felix Cohen was wrong to criticize judges who tried to resolve the corporate presence conundrum by reference to metaphor.

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am not ascribing direct causation between the metaphor and the reluctance on the part of judges to pierce the veil; I am merely suggesting that the relationship is suggestive. For an analysis of the circumstances where the corporate veil might be pierced see US v CPC, 141 L.Ed.2d 43, 66 USLW 4439 (US Sup Crt) (Corporate veil may be pierced and the shareholder held liable for the corporation's conduct when, inter alia, the corporate form would otherwise be misused to accomplish certain wrongful purposes, most notably fraud, on the shareholder's behalf.)

195 *Burnham v Superior Court of California*, 495 U.S. 604, 110 S.Ct. 2105 (1990).

196 S.M. Wald, *The Left-for-dead Fiction of Corporate "Presence": Is it Revived by* Burnham*?*, 54 LA. L. REV. 187, 187 (1993). One is tempted to ask why this might be a bad thing, but that question is not germane here.

197 *Id*. at 188.

198 On the US situation, see Wald, *supra* note ___. In Australia, the problem has been resolved by the states granting power back to the federal government to regulate companies, see H.A.J. FORD & I.M. RAMSAY, FORD'S PRINCIPLES OF CORPORATIONS LAW (1997).

He famously attacked what he called "transcendental nonsense" in law.[199] He said, for example: "When the vivid fictions and metaphors of traditional jurisprudence are thought of as reasons for decisions, rather than poetical or rhetorical devices...[then one] is apt to forget the social forces which mold the law."[200] And, in criticizing an early corporate presence case[201] he became heated:

> Instead of addressing itself to such economic, sociological, political, or ethical questions as a competent legislature might have faced, the court addressed itself to the question, 'Where is a corporation?'... Clearly the question of *where a corporation is*...is not a question that can be answered by empirical observation...Nobody has ever seen a corporation. What right have we to believe in corporations if we don't believe in angels? To be sure, some of us have seen corporate funds, corporate transactions, etc. (just as some of us have seen angelic deeds, angelic countenances, etc.). But this does not give us the right to hypostasize, to "thingify," the corporation, and to assume that it travels about from State to State as mortal men travel...[202]

Cohen's attack is not so much on metaphor as on traditional, doctrinal analysis which was at odds with his Realist perspective. Further, he was writing at a time when theories of mind and metaphor were not as advanced as they are today. Nonetheless, he was wrong to suggest that corporate presence is transcendental nonsense. Rather it is just one example of the structural entailments that flow from the adoption of the original CORPORATION AS PERSON metaphor.[203]

There are other examples of the metaphorical entailments which flow from accepting the CORPORATION AS PERSON metaphor, and the legal difficulties which stem from it. For example there is the major issue whether the corporation is a citizen—since all persons are citizens—which erupted in the courts during the 1800s and early part of the twentieth century.[204] Then there is issue of

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199 Cohen, *Nonsense*, *supra* note ____.

200 *Id*. at 812.

201 *Tauza v Susquehanna Coal Co.*, 220 N.Y. 259, 115 N.E. 915 (1917).

202 Cohen, *supra* note ____, at 810-11.

203 Winter has a more extended response to Cohen, Winter *Nonsense supra* note ____, at 1162-1171.

204 See Schane, *Corporation supra* note _____, at 569-583.

whether or not the corporate "will" has been coerced, and so on.[205] Whatever the outcome of these debates, we can see now that metaphors are not just figures of speech in law, but rather carry entailments that constrain our thinking in legal reasoning. Metaphors are a fundamental part of the way we think about law.[206]

The CORPORATION AS PERSON example has demonstrated how influential Lakoffian metaphor can be in legal analysis. It is a good example because it is a familiar one. In the Part that follows, I apply the same theory, and approach a more unfamiliar area: cyberspace regulation. Here we see the same process in action, and it leads to a much less palatable result than we have seen with corporations law.

III. CYBERSPACE AS (LEGAL) PLACE

> With the Web becoming an important mechanism for commerce...companies are racing to stake out their place in cyberspace.[207]

As the previous discussion of Lakoffian view of metaphor shows, the language which we use to describe our experience of the Web is a reflection of an underlying conceptual metaphor. This metaphor is of CYBERSPACE AS PLACE, and it means that we understand the medium of Internet communication as having certain spatial characteristics from our real world experience. Telling in

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205 See Minda, *supra* note _____, at 876-877. For the development of the corporate metaphor generally, see M. Horowitz, *Santa Clara Revisited: The Development of Corporate Theory*, 88 W. VA. L. REV. 173 (1985).

206 Other examples of this are provided by Winter, *Standing*, *Agon*, *Nonsense*, *Bull Durham*, *Death*, *Power*, *supra* note ___. He uses Lakoffian metaphor to "...demonstrate how an appreciation of the [Lakoffian view] of metaphor can help us construct a framework for a more realistic concept of law." Winter *Nonsense*, *supra* note ___, at 1161. See also Winter *Power*, *supra* note ___, at 744-755. He suggests that the Lakoffian view of metaphor can resolve the Hart-Fuller debate on rule interpretation, see Winter *Nonsense*, *supra* note ___, at 1172-1179; as well as remove legal indeterminacy, see Winter *Nonsense*, *supra* note ___, at 1180-1205; and overthrow current legal power relations, see Winter Power, *supra* note ___. While I may not claim as grand ends as these for the metaphor in operation here, Winter's work is seminal in the application of Lakoffian ideas to legal reasoning and thinking.

this regard are the references which have been variously used to describe the "consensual hallucination"[208] of life on the Internet. A number of simple examples were given earlier: web, net, sites, access, trespass, navigating, visiting, transport, and so forth.[209]

A short while ago, Mark Lemley memorably congratulated James Boyle[210] on managing to write a whole book on the law of information without mentioning any of the usual tropes: "information superhighway,"[211] "infobahn,"[212] "metaverse,"[213] or the more prosaic "National Information Infrastructure."[214] Of the term "cyberspace", Lemley noted that all law review articles about the Net will tell you that the term was coined by William Gibson in his wildly successful novel, NEUROMANCER.[215] Interestingly, however, "cyberspace" was not the term

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207 Brookfield Communications, Inc. v. West Coast Entm't Corp., 174 F.3d 1036, 1044 (9th Cir. 1999).

208 WILLIAM GIBSON, NEUROMANCER 51 (1984) (inventing the term "cyberspace" and calling it "a consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts. . . . A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding...")

209 *Supra* Part I.B.

210 Mark A. Lemley, *Romantic Authorship and the Rhetoric of Property* (Reviewing JAMES BOYLE, SHAMANS, SOFTWARE, AND SPLEENS), 75 TEX. L. REV. 873 (1997) [Hereinafter Lemley, *Romantic Authorship*]

211 *Id.* at 873, n.2.

212 *Id.* at 873, n.6. ("...popularized by Wired magazine in 1994 as an alternative to the then-ubiquitous "Information Superhighway." See John Perry Barlow, *Jackboots on the Infobahn*, Wired, Apr. 1994, at 40.")

213 Id. at 873, n.8. The term, which never gained currency, is from NEAL STEPHENSON, SNOW CRASH 22 (1992). As a relevant aside, Stephenson's *metaverse* was a virtual world laid out in familiar spatial terms, with a main street to the city, houses and commercial "buildings", nightclubs and bars, transportation facilities, and so forth.

214 *Id.* at 873, n.3.

215 *Id.* at 873, n.4. In common with a number of other law review articles, Lemley suggests that Gibson coined the term in NEUROMANCER, *supra* note ___. This common misconception seems to stem from relying on the mistake in either A. CAVAZOS & GAVINO MORIN, CYBERSPACE AND THE LAW: YOUR RIGHTS AND DUTIES IN THE ON-LINE WORLD 1 (1994) or RHEINGOLD, COMMUNITY *supra* note ___ at 5. The earliest reference of the term was in "Burning Chrome" (OMNI July 1982, 72, later collected in WILLIAM GIBSON, BURNING CHROME (1984)). Lemley noted that the reference to Gibson is now a reflex in cybserpace and law articles. He noted that, as at September 17, 1996, there were 36 law review hits for "gibson w/25

used most often by Gibson. Gibson usually referred to cyberspace as "the matrix".[216] It is revealing of our understanding of the web, that the term "cyberspace", rather than "matrix" or any other expression,[217] has triumphed over other alternatives.[218] "Cyberspace" is a more expansive description of all of the multifarious interactions which occur via these new communications mechanisms. I think this is due to the CYBERSPACE AS PLACE metaphor; though of course this is impossible to prove. The many linguistic usages mentioned earlier point the same way.[219]

The CYBERSPACE AS PLACE metaphor is also clearly evident in the legal material. There are now numerous legal cases which have decided issues relating to the Internet and the Web. In keeping with the observation about the use of spatial

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cyberspace". In the interests of the obvious longitudinal study, I note that as at 1 April, 2002 the same search returned a mind-boggling 235 hits.

216 Gibson's term was appropriated, obviously, by the Brothers Wachoswski in their 1999 movie, *The Matrix*, Warner Bros. (2000). But they did not use in the same way at Gibson initially used it: in the film "The Matrix" was the Plato's Cave illusion of Reality, being a computer-simulated construct generated by evil artificial intelligences. Though artificial intelligences were a feature of NEUROMANCER (both Neuromancer and Wintermute were AIs) the matrix was synonymous with cyberspace, and was not a simulation of reality. The Wachowskis' use of the term seems to have been influenced by Gibson, and by the fact that they could have called the simulated reality anything they wanted, and they needed a cool name. But I digress. Wildly.

217 Including "the information superhighway", the "Infobahn", and so on.

218 As early as 1995, the MIT cyber-theorist and Dean of the Architecture School, noted that the term was the dominant expression. *See* MITCHELL, CITY OF BITS, *supra* note _____ at 181 n.34 ("This word ["cyberspace"] does not have a respectable technical pedigree, but was introduced by William Gibson in his 1984 novel *Neuromancer*. Many old computer hands detest it for the conceptual vulgarities that it has come to connote. But it has won out against all the plausible alternatives and has succeeded in taking possession of its semantic niche, so I shall use it.")

219 Part II.B. *supra*. Other linguistic evidence of this seems to exist in the subtle changes of terminology that have occurred as our understanding of cyberspace has changed. At first, web material usually existed as "homepages". That term made sense when the web was primarily a publishing mechanism, see TIM BERNERS-LEE, WEAVING THE WEB (2000). It is interesting to note though that even when the term "homepage" was common, the place-like character was still evident. See MITCHELL, CITY OF BITS, *supra* note ____ at 118, 124 ("[Your]homepage is your castle") The term seems to have been supplanted over the last few years by the term "website", in part probably because many sites are commercial and no longer "home"-ly. I also suspect that this is so because the more elaborate sites no longer give the impression of being pages at all, but rather are abstract sites that one visits and interacts with, rather than reads. This is, of course, consistent with the CYBERSPACE AS PLACE metaphor.

terms in lay speech,[220] we find a proliferation of references in legal cases. Thus, in deciding whether a company was entitled to adopt its competitor's registered trademark in the metatags of its site,[221] the court in *Brookfield v. West Coast*[222] compared the metatag to a billboard, deceptively advertising the competitor's store as its own.[223] In a series of cases concerned with the liability of bulletin board systems ("BBSs") and Internet Service Providers ("ISPs") for the conduct of their users, courts were presented with a series of analogies. These ISPs were at times analogized to telecommunications carriers,[224] newsprint publishers,[225]

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220 *Supra* Part I.B.

221 "Metatags are HTML code intended to describe the contents of the web site. There are different types of metatags, but those of principal concern to us are the "description" and "keyword" metatags. The description metatags are intended to describe the web site; the keyword metatags, at least in theory, contain keywords relating to the contents of the web site. The more often a 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. v. West Coast Entm't Corp., 174 F.3d 1036, 1045 (9th Cir. 1999).

222 *Id*.

223 Brookfield Communications, Inc. v. West Coast Entm't Corp., 174 F.3d 1036, 1064 ("Using another's trademark in one's metatags is much like posting a sign with another's trademark in front of one's store. 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.")

224 *Religious Technology Center* v. *Netcom On-Line Communication Services, Inc.,* 37 U.S.P.Q.2d 1545 (N.D.Ca 1995).

225 *Religious Technology Center* v. *Netcom On-Line Communication Services, Inc.,* 37 U.S.P.Q.2d 1545 (N.D.Ca 1995) ("Recent decisions have held that where a BBS exercised little control over the content of the material on its service, it was more like a "distributor" than a "republisher" and was thus only liable for defamation on its system where it knew or should have known of the defamatory statements. Cubby, Inc. v. CompuServe, Inc., 776 F.Supp. 135 (S.D.N.Y.1991). By contrast, a New York state court judge found that Prodigy was a publisher because it held itself out to be controlling the content of its services and because it used software to automatically prescreen messages that were offensive or in bad taste. Stratton Oakmont, Inc. v. Prodigy Services Co., 1995 WL 323710, THE RECORDER, June 1, 1995, at 7 (excerpting May 24, 1995 Order Granting Partial Summary Judgment to Plaintiffs)."

landlords of dance halls with illegal music,[226] landlords for the operators of infringing record swap-meets,[227] and illegal radio stations.[228] All of these examples take the physical characteristics—and legal consequences—of the real world and maps them onto the abstract virtual world.

This process, of mapping the real onto the virtual, is pervasive in legal academic discourse, in judicial pronouncements, and in legislative enactment. There is nothing wrong with the adoption of the CYBERSPACE AS PLACE metaphor—indeed Lakoff explains how we cannot help but see abstract concepts in physical terms such as this. However, we need to recognize what the adoption of the metaphor entails. As Lakoff and Black have shown, the metaphor carries with it the implication complex that constrains the sorts of outcomes we can expect.[229] Specifically, adoption and use of the CYBERSPACE AS PLACE metaphor within law means that we begin to see cyberspace as land that may be fenced off and privatized, an issue which I take up later.[230]

This Part details the application of the CYBERSPACE AS PLACE metaphor both within law and in lay discourse. I begin by examining the "sense of place" geographers who have mapped out how we experience our environment, and shown that we experience cyberspace in a similar way. This demonstrates how the CYBERSPACE AS PLACE metaphor accords with our sense that it is a place.

Then this Part turns to the numerous examples of the metaphor within legal discourse, including criminal law, torts, and constitutional law, amongst others. It shows how judges, legislators and commentators in each legal area

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226 *Fonovisa, Inc.* v. *Cherry Auction, Inc.*, 847 F.Supp. 1492, 1496 (E.D.Cal.1994) (finding that renting space at swap meet to known bootleggers not "substantial participation" in the infringers' activities). See also Kelly Tickle, *Comment, The Vicarious Liability of Electronic Bulletin Board Operators for the Copyright Infringement Occurring on Their Bulletin Boards*, 80 Iowa L. Rev. 391, 415 (1995) (arguing that BBS operators "lease cyberspace" and should thus be treated like landlords, who are not liable for infringement that occurs on their premises).

227 *Religious Technology Center* v. *Netcom On-Line Communication Services, Inc.,* 37 U.S.P.Q.2d 1545 (N.D.Ca 1995). ("Providing a service that allows for the automatic distribution of all Usenet postings, infringing and noninfringing, goes well beyond renting a premises to an infringer. It is more akin to the radio stations that were found liable for rebroadcasting an infringing broadcast.")

228 *Select Theatres Corp.* v. *Ronzoni Macaroni Corp.*, 59 U.S.P.Q. 288, 291 (S.D.N.Y.1943).

229 *Supra* Part II.B.

230 *Infra* Part IV.A.

have (often unconsciously) adopted the metaphor. Contrary to those who have argued that cyberspace is not a place for the purposes of legal analysis,[231] this Part proves that the law of cyberspace is shot through with spatial assumptions.

A. City of Bits, Sense of Place

> Media, like physical places, include and exclude participants. Media, like walls and windows, can hide and they can reveal. Media can create a sense of sharing and belonging or a feeling of exclusion and isolation.[232]

In 1990 Mitch Kapor and John Perry Barlow penned a manifesto that created the Electronic Frontier Foundation, the online civil liberties group.[233] Entitled "Across the Electronic Frontier" the manifesto adopted the term "cyberspace" as well as a series of spatial metaphors for aspects of life on or using the electronic communication system of the Internet.[234] The development of online communities became the subject of significant description and discussion, during this early phase of cyberspace's development. The "frontier" was pushed

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231 *Supra* Part I.A.

232 JOSHUA MEYROWITZ, NO SENSE OF PLACE: THE IMPACT OF ELECTRONIC MEDIA ON SOCIAL BEHAVIOR 7 (1985).

233 http://www.eff.org (visited April 1, 2002)

234 As an example, the opening paragraphs read:

> "Over the last 50 years, the people of the developed world have begun to cross into a landscape unlike any which humanity has experienced before. It is a region without physical shape or form. It exists, like a standing wave, in the vast web of our electronic communication systems. It consists of electron states, microwaves, magnetic fields, light pulses and thought itself.
>
> It is familiar to most people as the "place" in which a long-distance telephone conversation takes place. But it is also the repository for all digital or electronically transferred information, and, as such, it is the venue for most of what is now commerce, industry, and broad-scale human interaction. William Gibson called this Platonic realm "Cyberspace," a name which has some currency among its present inhabitants.
>
> Whatever it is eventually called, it is the homeland of the Information Age, the place where the future is destined to dwell." Mitchell Kapor and John Perry Barlow, "Across the Frontier," July 10, 1990, available at http://www.eff.org/pub/Publications/John_Perry_Barlow/HTML/eff.html (visited April 1, 2002), reprinted in Robert B. Gelman & Stanton McLandish, Protecting Yourself Online: The Definitive Resource on Safety, Freedom, and Privacy in Cyberspace 14 (1998).

back by electronic homesteaders, and they were eager to provide their accounts of this new virtual place and the communities inhabiting it. Howard Rheingold's THE VIRTUAL COMMUNITY[235] was sub-titled "Homesteading on the Electronic Frontier," and explained the construction of new kind of virtual places,[236] the emergence of community structures,[237] and other early examples of how spatially-based community expectations were moved into cyberspace.[238]

Apart from first person accounts of the lives lived in that abstract space, a number of theorists—usually geographers, architects, or urban planners—began examining the spatial characteristics of the online world. These scholars explained how we generate a sense of place in the real world, and how this sense of place mapped to the virtual world. The most influential theorist was the dean of MIT's School of Architecture and Planning, William Mitchell, who provided the fundamental roadmap of the online world in his seminal CITY OF BITS.[239]

Mitchell's insight was to demonstrate how we effortlessly translate an enormous number of our physical understandings of our environment into the online world.[240] He demonstrated, for example, the presence of online public and private spaces online: the web is public, as are many chatrooms, whereas email is private.[241] He examined how our use of the space is similar to our uses of

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235 RHEINGOLD, COMMUNITY *supra* note ___.

236 *Id* at 25-56

237 *Id* at 181-204, 231-254.

238 See e.g. *id* at 255-290 (online activism), *id* at 323-342 (existence of community separate from the BBS service provider which provided the physical network system).

239 MITCHELL, CITY OF BITS, *supra* note ___.

240 Earlier sense of place geographers had presented understandings of place that lead to Mitchell's insights. *See e.g.* TONY HISS, THE EXPERIENCE OF PLACE (1990); KEVIN LYNCH, IMAGE OF THE CITY (1960). For earlier analyses of media, telecommunications and cyberspace within the sense of place framework, *see* JOSHUA MEYROWITZ, NO SENSE OF PLACE (1985). Subsequent researchers fleshed out other features of the online landscape, *see* JOHN BECKMAN ED., VIRTUAL DIMENSIONS (1998); MANUEL CASTELLS, INFORMATION AGE, Vol 1 (1996) Vol 2 (1997) Vol 3 (1998); STEPHEN GRAHAM AND SIMON MARIN, TELECOMMUNICATIONS AND THE CITY (1996); STACY HORN, CYBERVILLE: CLICKS, CULTURE, AND THE CREATION OF AN ONLINE TOWN (1998); WILLIAM J. MITCHELL, E-TOPIA (1999); NEIL POSTMAN, TECHNOPOLY (1992).

241 MITCHELL, CITY OF BITS *supra* note ___ at 23 ("Many of the places in cyberspace are public, like streets and squares; access to them is uncontrolled. Others are

realworld space. We promenade along the public spaces.[242] We explore frontier regions,[243] urban neighborhoods,[244] and imaginary worlds.[245] We name the spaces we inhabit with titles which reflect our personality or the usage of the space—chatrooms called "The Flirt's Nook" or "StarFleet Academy"—[246] and so on.[247] He described the various online spaces that were being directly "moved" into the online environment. These ranged from schools, through stock exchanges, to prisons.[248]

Identifying spatial characteristics lead quickly to the cartography—that is the study of mapping—of cyberspace.[249] On one hand designers of abstract spaces adopted a map-like metaphor as an interface into the various services they

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private, like mailboxes or houses, and you can enter only if you have the key or can demonstrate that you belong.")

242 MITCHELL, CITY OF BITS *supra* note ___ at 24 ("Click, click through cyberspace; this is the new architectural promenade.")

243 MITCHELL, CITY OF BITS *supra* note ___ at 109 ("The early days of cyberspace were like those of the western frontier. Parallel, breakneck development of the Internet and of consumer computing devices and software quickly created an astonishing new condition; a vast, hitherto-unimagined territory began to open up for exploration."). See also Mitchell Kapor and John Perry Barlow, "Across the Frontier," July 10, 1990, available at http://www.eff.org/pub/Publications/John_Perry_Barlow/HTML/eff.html (visited April 1, 2002), quoted in MITCHELL, CITY OF BITS *supra* note ___ at 110. ("In its present condition, cyberspace is a frontier region, populated by the few hardy technologists who can tolerate the austerity of its savage computer interfaces, incompatible communications protocols, proprietary barricades, cultural and legal ambiguities, and a general lack of useful maps and metaphors. Certainly, the old concepts of property, expression, identity, movement, and context, based as they are on physical manifestation, do not apply succinctly in a world where there can be none.")

244 MITCHELL, CITY OF BITS *supra* note ___ at 118 (MUDs "are the cyberspace equivalents of urban neighborhoods.")

245 MITCHELL, CITY OF BITS *supra* note ___ at 120 (Description of online gaming worlds like *Habitat*).

246 MITCHELL, CITY OF BITS *supra* note ___ at 22 ("Shared "rooms" on the Net often announce themselves by descriptive or allusive names (like the signs on bars and other hangouts)—The Flirt's Nook, Gay and Lesbian, Red Dragon Inn, Romance Connection, Starfleet Academy, Teen Chat, Thirtysomething, Born-Again Onliners, Pet Chat, and so on.")

247 As an example of the change possible within the spatial metaphor, Yahoo was originally organized by electronic neighborhoods, such as "Bourbon St", but this was abandoned favor of the flexibility of clubs, see THOMAS A. HORAN, DIGITAL PLACES—BUILDING OUR CITY OF BITS, 18 (2000). Either way, we still rely on a spatial metaphor.

248 MITCHELL, CITY OF BITS *supra* note ___ at 80-85.

249 *See* generally MARTIN DODGE & ROB KITCHIN, MAPPING CYBERSPACE (2001).

provided. Early examples included Apple Computer's *eWorld*[250] and the city of Cleveland's *FreeNet*.[251] In *eWorld* the various services available were displayed on the screen as a kind of small town. Email services were available from the building labeled "Post Office", administrative functions were found at "City Hall".[252] In FreeNet, the online services of the city of Cleveland were found in different "buildings" available online.[253] Many other examples are familiar from the earliest days of the network: virtual libraries were often visualized exactly like their physical counterparts—with stacks, reference sections, help-desks, and so forth—in order to assist navigation, searching, and use.[254] More recently we have begun seeing spatial visualizations of online resources that attempt to reflect features of the physical world to make human interaction more meaningful. The New York Stock Exchange built a three-dimensional trading floor, called 3DTF, as a real-time decision support tool for operators.[255] The visualization is an photo-realistic simulacrum of parts of the NYSE trading floor, replete with trading posts, tickers, and Bloomberg screen.[256] Other approaches are not nearly so elaborate. Sitemaps are now a common feature of websites which provide an abstract overview of the pages and services available on the site.[257] These may be arranged as a hierarchical tree, or more imaginatively as, for example, the sitemap of the British Yellow Pages which appropriates the London Underground map as a reference.[258]

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250 MITCHELL, CITY OF BITS *supra* note ____ at 106

251 MITCHELL, CITY OF BITS *supra* note ____ at 129

252 MITCHELL, CITY OF BITS *supra* note ____ at 106

253 MITCHELL, CITY OF BITS *supra* note ____ at 127-9.

254 HORAN, DIGITAL PLACES *supra* note ____ at 64.

255 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 124.

256 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 124-5.

257 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 117-20.

258 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 119. This is a neat reflection of an observation that Mitchell makes about movement through the virtual space, MITCHELL, CITY OF BITS *supra* note ____ at 118 ("as I see it, I jump almost instantaneously from virtual place to virtual place by following the hyperlinks that programmers have established—much as I might trace a path from station to station through the London Underground. If I were to diagram these connections, I would have a kind of subway map of cyberspace.")

The mapping of cyberspace is by no means confined to this appropriation of explicit physical references, nor is it confined to the Cartesian or Newtonian mapping of objects.[259] Abstract spaces can now be readily mapped and visualized. Online objects, users, services, and relationships are now the subject of cartographic experiments. Examples of maps of cyberspace now include infrastructure and network maps,[260] IP address space diagrams,[261] maps of domain name concentrations,[262] Usenet traffic flows visualizations,[263] network congestion diagrams,[264] "topological" maps of the concentrations of materials around particular news topics,[265] and arc-relation diagrams of real-time messaging relationships.[266] There are even "satellite" maps and "urban density" maps of online multi-user spaces.[267]

The connection should now be clear. The previous discussion of Lakoffian metaphors demonstrated the importance of physical metaphors in structuring our cognitive system.[268] The linguistic usage of "site", "visit", and so on,[269] shows us that we conceive of cyberspace as a place. The sense of place geographers, examined in this section, explain how we project our physical understandings onto cyberspace, and how realspace understandings are moving into the virtual space. The cyberspace cartographers take this one step further and set out to map cyberspace for us.

With all this evidence pointing to the centrality of CYBERSPACE AS PLACE, it would be surprising if we did not see the metaphor reflected in the legal system.

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259 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 28-31.

260 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 82-88

261 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 87

262 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 88

263 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 97

264 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at Plate 3

265 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 116.

266 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 133-41.

267 DODGE & KITCHIN, MAPPING CYBERSPACE *supra* note ____ at 153-60.

268 *Supra* Part II.

269 *Supra* Part I.B.

As the following sections demonstrate, we do see it, in legal areas as diverse as criminal law,[270] torts,[271] and constitutional law.[272]

B. Crimes & Misdemeanors

> *Access* is an unfortunate term applied to computers that causes considerable confusion, especially with regard to criminal law. We understand what it means to access or approach and enter a physical location, but entering a computer is downright impossible.[273]

A great many criminal laws involve computers or the Internet.[274] These laws include Federal[275] State,[276] or international legislation[277] specifically targeted

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270 *Infra* Part III.B.

271 *Infra* Part III.C.

272 *Infra* Part III.D.

273 DONN B. PARKER, FIGHTING COMPUTER CRIME—A NEW FRAMEWORK FOR PROTECTING INFORMATION 82 (1998).

274 *See* Neal Kumar Katyal, *Criminal Law in Cyberspace*, 149 U. PA L. REV. 1003.

275 Notably 18 U.S.C.A. §§1030, 2510-2521, 2701-2710 (1994), 15 U.S.C. §77(a)-(aa) (1994). See Rudolph J. Peritz, *Computer Data and Reliability: A Call for Authentication of Business Records Under the Federal Rules of Evidence,* 80 NW. U. L. REV. 956, 991 (1986) (mentioning Counterfeit Access Device and Computer Fraud and Abuse Act of 1984, 18 U.S.C. § 1030 (Supp. 1985)); Eric J. Sinrod and William P. Reilly, *Cyber-Crimes: A Practical Approach to the Application of Federal Computer Crime Laws,* 16 SANTA CLARA COMP. & HIGH TECH. L.J. 177, 181 (2000) (referring to 18 U.S.C.A. §1030 and 15 U.S.C. §77(a)-(aa)).

276 See e.g. American Libraries Ass'n v. Pataki, 969 F. Supp. 160, 182 (S.D.N.Y. 1997) (referring to GA. CODE ANN. § 16-19-93.1 (1996)., OKLA. STAT. tit. 21, § 1040.76 (1996)., and to N.Y. PENAL LAW § 235.20(6)); People v. Versaggi, 83 N.Y.2d 123,129 (1994) (outlining the NY offenses of unauthorized use of a computer (Penal Law § 156.05); computer trespass (Penal Law § 156.10); computer tampering (Penal Law §§ 156.20, 156.25); unlawful duplication of computer related material (Penal Law § 156.30); and criminal possession of computer related material (Penal Law § 156.35)).

277 See e.g. Hon. Justice Michael Kirby, et. al., *Legal Aspects of Transborder Data Flows,* 11 COMPUTER/L.J. 233, 239 (1991) (mentioning the need for international legislation specially targeted to cover computers); Cole Durham, *The Emerging Structures of Criminal Information Law: Tracing the Contours of a New Paradigm: General Report for the AIDP Colloquium*, 64 REV. INT'L DE DROIT PENAL 79, 97-109 (1993) (discussing patterns of convergence in computer crime legislation with regard to unauthorized use or reproduction of computer

at the computer as the subject matter of crimes such as computer trespass[278] or data misuse.[279] They also encompass the computer as the object or tool of other more traditional crimes such as fraud,[280] forgery,[281] and so on.

Laws against computer crime represent one of the earliest areas where the conception of the network as a place emerged. In fact the most obvious example, the Computer Fraud and Abuse Act of 1986[282] relied on the spatial characteristics of a network long before the Internet was in the minds of legislators.[283] The offenses in the Act all proscribe access to computers and the networks that comprise them. For example, §1030(5)(A)(ii) provides that whoever "intentionally accesses a protected computer without authorization, and as a result of such conduct, recklessly causes damage" above a specified value, is guilty of an offense. Other sections deal with the special cases of unauthorized access of government computer systems[284] or information from

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programs, unauthorized reproduction of topography, computer forgery, and computer fraud).

278 See e.g. U.S. v. Agnello, 163 F. Supp.2d 140, 145 (E.D.N.Y. 2001) (examining adoption of computer trespass related crimes). See *infra* this Part.

279 See Pamela Samuelson, *Privacy As Intellectual Property?*, 52 Stan. L. Rev. 1125, 1145 (2000) (discussing data misuse within context of personal privacy)

280 See e.g. America Online, Inc. v. CN Productions, Inc., 272 B.R. 879, 880 (E.D.Va. 2002) (examining Computer Fraud and Abuse Act, 18 U.S.C. § 1030(a)).

281 Cole Durham, *The Emerging Structures of Criminal Information Law: Tracing the Contours of a New Paradigm: General Report for the AIDP Colloquium*, 64 REV. INT'L DE DROIT PENAL 79, 97-109 (1993) (discussing patterns of convergence in computer crime legislation with regard to unauthorized use or reproduction of computer programs, unauthorized reproduction of topography, computer forgery, and computer fraud).

282 Computer Fraud and Abuse Act (CFAA) of 1986, 18 USCA § 1030 (1996) [Hereinafter "CFAA").

283 The Internet emerged from ARPANet circa 1969, see *Management of Internet Names and Addresses*, 63 Fed. Reg. 31,741, 31,741 (June 10, 1998). The Internet was the network of networks that arose from ARPANet and a series of other networks, Id. It was initially confined largely to educational and military usages under the auspices of the National Science Foundation, until 1992 when the Scientific and Advanced-Technology Act came into effect and provided for commercial exploitation of the network, Scientific and Advanced-Technology Act of 1992, Pub. L. No. 102-476, § 4, 106 Stat. 2297, 2300. The earliest CFAA case involving the Internet was U.S. v. Morris, 928 F.2d 504 (2d Cir 1991), cert. denied 112 S.Ct. 72, 502 U.S. 817, 116 L.Ed.2d 46 (Defendant's transmission of computer "worm" into the Internet i.e. "group of national networks that connected university, governmental, and military computers around the country" constituted accessing federal interest computer without authorization).

284 §1030(a)(1) ("Whoever--having knowingly accessed a computer without authorization or exceeding authorized access, and by means of such conduct

government agencies,[285] unauthorized access to obtain credit card information or credit reports,[286] amongst a slew of other crimes stemming from the trespass. However all offenses share the basic requirements of unauthorized access of the computer—to deal with outsiders hacking into a system—or accessing a computer beyond the limits of authorization—to deal with insiders who have access to the system, but who move beyond the scope of their authorization.[287] The mere access of the system without any damage will, generally, be sufficient to invoke the Act.[288]

These types of offenses are generically labeled "computer trespasses,"[289] and it is not hard to understand why. The computer is "accessed" without permission, implying the illegal entry into the system. Not for nothing do we see movie depictions of hackers announcing triumphantly "I'm in" when they access the

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having obtained information that has been determined by the United States Government pursuant to an Executive order or statute to require protection against unauthorized disclosure for reasons of national defense or foreign relations, or any restricted data, as defined in paragraph y of section 11 of the Atomic Energy Act of 1954, with reason to believe that such information so obtained could be used to the injury of the United States, or to the advantage of any foreign nation willfully communicates, delivers, transmits, or causes to be communicated, delivered, or transmitted, or attempts to communicate, deliver, transmit or cause to be communicated, delivered, or transmitted the same to any person not entitled to receive it, or willfully retains the same and fails to deliver it to the officer or employee of the United States entitled to receive it;")

285 1030(a)(2)(B) ("Whoever--intentionally accesses a computer without authorization or exceeds authorized access, and thereby obtains-- information from any department or agency of the United States;")

286 1030(a)(2)(A) ("Whoever--intentionally accesses a computer without authorization or exceeds authorized access, and thereby obtains--information contained in a financial record of a financial institution, or of a card issuer as defined in section 1602(n) of title 15, or contained in a file of a consumer reporting agency on a consumer, as such terms are defined in the Fair Credit Reporting Act (15 U.S.C. 1681 et seq.);")

287 All provisions include the expression "exceeds authorized access", ee e.g. *supra* note ____.

288 See U.S. v. Sablan, 92 F.3d 865 (9th Cir 1996) (CFAA does not require government to prove that defendant intentionally damaged computer files, but only that defendant intentionally accessed computer without authorization); In re Intuit Privacy Litigation, 138 F.Supp.2d 1272 (C.D.Cal.2001) (Allegation that web site operator intentionally placed "cookies" on visiting users' computers for purpose of monitoring their web activity was sufficient to satisfy scienter element of claim that operator violated proscriptions against intentional computer access without authorization and knowing transmission of program without authorization). But see U.S. v. Ivanov, 2001 WL 1575720 (D.Conn.,2001) (CFAA 18 U.S.C.A. § 1030(a)(4) requires defendant do more than merely access computers and view data).

system.[290] They may use a "backdoor" to enter the system,[291] or just bypass (i.e. "pass by") the security. Authorized users use a word that allows them passage into the system, which we call a "password". Though the opening quotation of this section bemoans the inexactness of the use of the expression "accessing" a computer,[292] it is an obvious example of linguistic usage reflecting a deeper physical metaphor of the COMPUTER AS PLACE.[293]

It is not surprising then that when the CFAA was applied to internet-connected computers, that we would see the CYBERSPACE AS PLACE metaphor emerge as the dominant way to understand computer trespasses over the network. The network provides the means of moving around, and the computer systems, hosts, or

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289 People v. Versaggi, 83 N.Y.2d 123,129 (1994) (noting NY legislation proscribing computer trespass, Penal Law § 156.10).

290 Briggs v. State, 704 A.2d 904, 907 (Md. 1998) ("The word "hacker" has become synonymous with acomputer criminal, and typically refers to a person who breaks into computer networks"). On the use of the term "I'm in" by hackers, at least within movies, see e.g. *Swordfish* (Warner Bros. 2001), *Sneakers* (Universal 1992), *Wargames* (MGM 1983). On the problems with the technical basis of these movies (especially the utterly lame "Swordfish") see Michelle Delio, *Hacker Movie Has Lots of Cracks,* WIRED NEWS, Apr. 6, 2001, at http://www.wired.com/news/culture/0,1284,42774,00.html (explaining in detail the technical problems with "Swordfish").

291 Simon Edwards, *Know your enemy,* PERSONAL SITE, Nov. 21, 2001, at http://www.psiborg.net/transceiver/txt/kye.html (explaining the function and value of back doors for hackers: "If an attacker is able to gain any kind of meaningful access to your system he will probably wish to return at some point. But rather than have to go through the hacking process again, which often involves the risk of being logged and caught, any hacker worth his salt will want to wedge in a metaphorical doorstop, otherwise known as a backdoor.").

292 DONN B. PARKER, FIGHTING COMPUTER CRIME—A NEW FRAMEWORK FOR PROTECTING INFORMATION 82 (1998).

293 The author of this quotation betrays the physical character of the abstract space that is the computer and the network. Examine the language he uses when he goes on to say:

> "We ***approach*** a computer at the moment that we initiate an electrical signal in a circuit, such as flipping an on-off switch or depressing a key on the keyboard...we should abandon our use of the term *access* with regard to information an networks. We ***locate*** information and/or ***open*** information *files*. When we use a network, we ***send*** or ***receive messages***, or monitor information that ***passes through*** the network. In both cases, *use* is a more precise—and more accurate—descriptor of our actions than *access*." *Id.* (bold italics added for emphasis)
>
> All of the bold italicized terms betray the physical movement through space conception that is characteristic of our language usage in this area.

websites within the network are the access points.[294] So, for example, an Internet dating service was entitled under the CFAA to a temporary restraining order, prohibiting a former programmer from accessing the dating service's website via the Internet, and diverting its clients and users to a pornography site.[295] One court has extended this idea. It suggested that the technical requirements of the Internet's fundamental transmission protocol, TCP|IP, means that all computers which transmit IP packets have been accessed by the person initiating the transmission.[296] In both these cases, the idea of CYBERSPACE AS PLACE can be seen clearly. The Net is conceived in familiar terms, just like the public roads which lead to private properties, on which the defendant trespasses.

More troubling than this, the CYBERSPACE AS PLACE metaphor has lead to the application of the CFAA to problematic uses of publicly accessible websites, in circumstances that are a long way from the original criminal scope of the CFAA. In a series of cases involving unsolicited bulk email (the "spam cases")[297] and companies downloading information from competitor's websites (the "website cases"),[298] courts have freely applied the CFAA.[299]

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294 America Online, Inc. v. National Health Care Discount, Inc., 121 F.Supp.2d 1255 (N.D.Iowa.,2000) (email transmission moves between systems, accessing each system on the way).

295 YourNetDating, Inc. v. Mitchell, 88 F.Supp.2d 870 (N.D.Ill.2000)

296 America Online, Inc. v. National Health Care Discount, Inc., 121 F.Supp.2d 1255 (N.D.Iowa.,2000) (when someone sends an e-mail message from his or her own computer, and the message then is transmitted through a number of other computers until it reaches its destination, the sender is making use of all of those computers, and is therefore "accessing" them within meaning of the CFAA.)

297 America Online, Inc. v. LCGM, Inc., 46 F.Supp.2d 444 (E.D.Va.1998) (Internet site operators' maintenance of membership with AOL to harvest e-mail addresses of provider's customers and send bulk e-mails to those customers, in violation of provider's terms of service, violated CFAA); America Online, Inc. v. National Health Care Discount, Inc., 121 F.Supp.2d 1255 (N.D.Iowa.,2000); *America Online, Inc.* v. *GreatDeals.net* No. Civ.A. 99-62-A., (E.D.Va. 1999); America Online, Inc. v. IMS et al., 24 F.Supp.2d 548, 550-51 (E.D.Va.1998).

298 See e.g. Register.com, Inc. v. Verio, Inc., 126 F.Supp.2d 238 (S.D.N.Y. 2000); EF Cultural Travel BV v. Explorica, Inc., 274 F.3d 577 (1st Cir 2001) (Competitor's use of "scraper" program to glean prices from tour company's website, in order to allow systematic undercutting of those prices, "exceeded authorized access" within meaning of CFAA, 18 U.S.C.A. § 1030(a)(4), (e)(6).)

299 CFAA §1030(g) provides that a civil action may be brought under some sub-sections of the CFAA provided certain requirements are met ("Any person who suffers damage or loss by reason of a violation of this section may maintain a

In the spam cases, providers of free email services, prevailed over spammers who harvested email addresses from them. In each case, the courts had no difficulty in applying laws directed at criminal action to the civil subject matter before it. The most interesting issue was how the spammer's access was forbidden, since computer trespass requires "unauthorized access" of the computer system. The courts found that the spammer did not have permission to undertake this type of access, since the terms of use of the providers' systems specifically forbade access for this purpose.[300]

Spam is such an egregious intrusion of online space, and such a pernicious evil to Internet usage, that we should hardly be surprised that courts would extend criminal liability to this type of activity. It is hard to feel sorry for the spammers. We might hope however that courts would limit the CFAA to these sorts of outrageous activities. This is not so, however. In the website cases, courts have been exceedingly swift in applying criminal sanctions to activities that can only be characterized as competitive practices. In *Register.com v. Verio*,[301] the practice involved Verio's "scraping" of WHOIS data[302] from Register.com's website. Register.com, in keeping with any organization which is granted the right to register domain names, is obliged to publish the WHOIS records of the

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civil action against the violator to obtain compensatory damages and injunctive relief or other equitable relief. A civil action for a violation of this section may be brought only if the conduct involves 1 of the factors set forth in clause (i), (ii), (iii), (iv), or (v) of subsection (a)(5)(B). Damages for a violation involving only conduct described in subsection (a)(5)(B)(i) are limited to economic damages. No action may be brought under this subsection unless such action is begun within 2 years of the date of the act complained of or the date of the discovery of the damage. No action may be brought under this subsection for the negligent design or manufacture of computer hardware, computer software, or firmware.").

300 See e.g. America Online, Inc. v. National Health Care Discount, Inc., 121 F.Supp.2d 1255, 1261 (N.D.Iowa.,2000) ("The "Conditions of AOL Membership," displayed on every new member's computer screen at the time of enrollment, include...Your use of the America Online (AOL) service is conditioned upon your acceptance of AOL's Terms of Service (TOS) and Rules of the Road (ROR)...AOL's Rules of the Road ("ROR") effective on June 15, 1996, provided members were not allowed to "post or use AOL to ... post or transmit unsolicited advertising, promotional materials, or other forms of solicitation to other Members, individuals or entities, except in those areas (*e.g.,* the classified areas) that are designated for such a purpose...").

301 Register.com, Inc. v. Verio, Inc., 126 F.Supp.2d 238 (S.D.N.Y. 2000)

302 *Id* at 242 ("This database contains the names and contact information--postal address, telephone number, electronic mail address and in some cases facsimile number--for customers who register domain names through the registrar.")

domain names it registers.[303] A WHOIS record details the name, address, and contact information of the domain name holder, as well as certain technical data about the domain name.[304] Register.com published the whois records of its registrants on its publicly-accessible website. Verio, a competitor in the domain name registration and website hosting business, collected these records from Register.com, for domain names that had been recently registered.[305] Verio then used this information to contact the domain name registrants, offering them various website hosting services.

At no point did Verio hack into Register.com's database: the information was all gathered from the public website. The sum total of Verio's "access" of Register.com's computer system was a series of well-formed http requests[306] to Register.com's webserver, which Register.com made available to the web at-large. Moreover, the data that Register.com sent in response to these http requests was information which, under the terms of its deal with ICANN,[307] it was obliged to make public.[308] These facts notwithstanding, the court had no qualms holding that Verio was guilty of a computer trespass under 18 U.S.C.

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303 *Id* at 241 ("To become an accredited domain name registrar for the .com, .net, and . org domains, all registrars, including Register.com are required to enter into a registrar Accreditation Agreement ("Agreement") with the Internet Corporation for Assigned Names and Numbers").

304 Id at 242.

305 *Id* at 243 ("In general, the process worked as follows: First, each day Verio downloaded, in compressed format, a list of all currently registered domain names, of all registrars, ending in .com, .net, and .org...Using a computer program, Verio then compared the newly downloaded [list]... with the [list]... it downloaded a day earlier in order to isolate the domain names that had been registered in the last day and the names that had been removed. After downloading the list of new domain names, ...[a] search robot then automatically made successive queries to the various registrars' WHOIS databases, via the port 43 access channels, to harvest the relevant contact information for each new domain name registered. Once retrieved, the WHOIS data was deposited into an information database maintained by Verio. The resulting database of sales leads was then provided to Verio's telemarketing staff.") (footnotes and references omitted)

306 See M. Sean Fosmire, *Intranets and Extranets- The Extension of Web Technology to the Distribution of Private Information,* 77 Mich. B.J. 412, 416 (1998) (explaining the basics of HTTP).

307 "Internet Corporation for Assigned Names and Numbers." ICANN is the body which has eventual oversight of the allocation of all domain names and IP addresses and whose terms Register.com had to meet in order to be granted the right to register domain names, see Register.com, Inc. v. Verio, Inc., 126 F.Supp.2d 238 at 242.

§1030(a)(2)(C) and (5)(C).[309] Verio had accessed the computer system of Register.com, and the access was clearly unauthorized, since Register.com maintains a terms of use policy for their website. These terms, tucked away on a page accessible from the default page, forbade Verio from using an automated search mechanism to poll the Register.com WHOIS database.[310] The analysis of court was straightforward: "because Register.com objects to Verio's use of search robots they represent an unauthorized access to the WHOIS database."[311] That is, *the simple objection to access provides the basis for the criminal liability*. This it true, even though Verio was only making a request on a publicly-accessible database, it exceeded the terms of access since all bots were forbidden from making requests on the site. The court therefore concluded that Verio was therefore criminally liable under CFAA §1030(a).[312]

"Terms of Use" or "Terms of Access" are the most obvious way that a competitor may render a rival's access to its website to be "unauthorized." However, in EF v Explorica,[313] the court considered whether a confidentiality agreement could provide the same limitation on access. The data in this case were pricing, routing and associated information[314] about vacation packages offered by EF, a specialist in cultural and student tours. The information was publicly available on EF's website. Explorica was set up, to compete in the student cultural and language vacation market.[315] Explorica commissioned a programmer to write a routine that "scraped"[316] all of the information from EF's publicly-accessible

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308 *Id* at 242-3.

309 *Id* at 251-2.

310 *Id* at 242.

311 *Id* at 251.

312 The particular requirements of the two sections in issue were also easily met. §1030(a)(2)(C) required a finding that Verio accessed Register.com's computers without authorization and thereby obtained information; while §1030(a)(5)(C) required a finding that Verio intentionally accessed Registter.com's computer without authorization and thereby caused damage. Both of these additional requirements were easily found, though the particular reasons for this are not germane to the argument presented here.

313 EF Cultural Travel BV v. Explorica, Inc., 274 F.3d 577 (1st Cir 2001).

314 *Id* at 579.

315 *Id* at 579.

316 Id at 579.

site. Explorica had knowledge of EF's fare structure, gathered from the ex-employee. It was therefore a simple task to write an automated query agent which—as with the agent in *Register.com v. Verio*—sent a series of requests to EF's webserver and collected the responses in a database maintained by Explorica.[317] Armed with this data, Explorica could offer similar or identical tours to EF, and, having collected EF's pricing structure, could systematically undercut EF. EF sought a preliminary injunction to stop Explorica's actions.

There was no question that Explorica had accessed anything other than that which was publicly available. At the District Court level, the court concluded that placing material on the web did not affect the analysis of whether the access was unauthorized, concluding that EF's copyright notice "should have dispelled any notion a reasonable person may have had that the 'presumption of open access' applied to information on EF's website."[318] Since website proprietors plastered copyright notices about with gay abandon, it is hard to credit that this alone is sufficient to make the access unauthorized; especially since the copyright notice does not speak to the issue of access or otherwise. Indeed the Court of Appeals did not rely on this as the touchstone of authorization. Instead, it looked to the unusual fact that EF's ex-employee, now a vice-president of Explorica, had signed a confidentiality agreement when an employee of EF. This agreement included a clause to the effect that the employee would not disclose any confidential information to the outside world.[319] As a result, the court concluded Explorica's subsequent access was unauthorized.[320]

In both the spam cases and the website cases, the information was publicly accessible, but it was subject to some type of limitation on the uses that this

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317 Id. At 579

318 Quoted in EF Cultural Travel BV v. Explorica, Inc., 274 F.3d 577, 580 (1st Cir 2001).

319 Id at 582 ("Employee agrees to maintain in strict confidence and not to disclose to any third party, either orally or in writing, any Confidential or Proprietary Information ... and never to at any time (i) directly or indirectly publish, disseminate or otherwise disclose, deliver or make available to anybody any Confidential or Proprietary Information or (ii) use such Confidential or [P]roprietary Information for Employee's own benefit or for the benefit of any other person or business entity other than EF.")

320 It relied on the "insider" requirements of §1030(e)(6) ("exceeds authorized access," defined as accessing "a computer with authorization and [using] such access to obtain or alter information in the computer that the accesser is not

information might be put. Typically this limitation was found in a "terms of use" document, available somewhere on the website,[321] or provided via a clickwrap agreement,[322] though other bases of limitation were present in unusual circumstances.[323] Whatever the basis for the limitation, courts have generally found unauthorized access for the purposes of the CFAA where the cyberspace owner simply objects to access.[324]

The CYBERSPACE AS PLACE metaphor explains why the results in these cases are anything but surprising, even if, as I will argue shortly, they have dire implications.[325] Cyberspace is a place that conforms with our understanding of the real world, with private spaces such as websites, email servers, and fileservers, connected by the public thoroughfares of the network connections. Viewed through the filter of the CYBERSPACE AS PLACE metaphor, computer trespass does not just involve an infringement on my right to use the personal property of my computer system. Instead, the action becomes a trespass against a form of quasi-land that exists online. Trespasses to land have always be considered to be more serious than the equivalent actions against personal property: for example, the action lies for the most trivial trespass to land, whereas trespasses to chattels have always required serious damage.[326]

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entitled so to obtain or alter."). The court concluded that the ex-employee "exceeded authorized access". *Id* at 583-4.

321 *See e.g.* Register.com, Inc. v. Verio, Inc., 126 F.Supp.2d 238, 241 (S.D.N.Y. 2000)

322 *See e.g.* America Online, Inc. v. LCGM, Inc., 46 F.Supp.2d 444 (E.D.Va.1998) (limitation present in free email provider's terms of service, agreed to via clickwrap agreement).

323 *See e.g.* EF Cultural Travel BV v. Explorica, Inc., 274 F.3d 577 (1st Cir 2001) (limitation found in ex-employee's confidentiality agreement); Intel Corp. v. Hamidi, 94 Cal. App. 4th 325, 114 Cal. Rptr. 2d 244 (Ct. App. 2001). (limitation stemming from request not send targeted emails to employees)

324 Register.com, Inc. v. Verio, Inc., 126 F.Supp.2d 238 at 251. *But see* In re America Online, Inc., 2001 WL 1243421 (S.D.Fla., 2001) (CFAA 18 U.S.C.A. § 1030(a)(5) barring knowing transmission of computer program that damages protected computer, and causing of damage through unauthorized access, would not be expanded by analogy to common law of trespass, to encompass cases in which access was granted and scope of authorization was subsequently exceeded).

325 *Infra* Part IV.

326 Restatement (Second) of Torts, § 218 cmt. e (1977). ("[t]he interest of a possessor of a chattel in its inviolability, unlike the similar interest of a possessor of land, is not given legal protection by an action for nominal damages for harmless intermeddlings with the chattel. In order that an actor who interferes with another's chattel may be liable, his conduct must affect some other and more important interest of the possessor . . . in the physical condition, quality, or

Anyone who enters my space without authorization is a trespasser. Private spaces may allow people entry under certain conditions, which may be posted on the door, or otherwise communicated to them.[327] This has its cyber-equivalent: conditions of entry on the door are just like the Terms of Use of the website, or information contained in the robot exclusion file.[328] Other mechanisms of removing permission would include direct email contact[329] or requirements in confidentiality agreements as seen in EF v. Explorica. As a result of the CYBERSPACE AS PLACE metaphor, anyone using my website appears to be "entering" my place, and should be treated just like an invitee at common law.[330] If the invitee oversteps the bounds of their invitation then they become trespassers, and will be subject to the full force of the criminal law. Courts have had few qualms about applying the metaphor to reach this conclusion.[331] And why not? Surely cyberspace is a place, when all is said and done?

Laws proscribing computer and network trespass are the obvious starting point for the examination of the legal application of CYBERSPACE AS PLACE.[332]

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value of the chattel, or if the possessor is deprived of the use of the chattel for a substantial time.")

327 WILLIAM L. PROSSER ET AL., CASES AND MATERIALS ON TORTS 80 (8th ed. 1988).

328 Robot Exclusion Standard, available at http://info.webcrawler.com/mak.projects/robots/norobots.html (visited 1 April, 2002).

329 See e.g. Intel Corp. v. Hamidi, 94 Cal. App. 4th 325, 114 Cal. Rptr. 2d 244 (Ct. App. 2001).

330 See Kermarec v. Compagnie Generale Transatlantique, 358 U.S. 625 (1959) (outlining treatment of invitees, and eliminating distinction between invitee and licensee at common law)

331 But see. In re America Online, Inc., 2001 WL 1243421 (S.D.Fla., 2001) (CFAA 18 U.S.C.A. § 1030(a)(5) barring knowing transmission of computer program that damages protected computer, and causing of damage through unauthorized access, would not be expanded by analogy to common law of trespass, to encompass cases in which access was granted and scope of authorization was subsequently exceeded).

332 There are many other criminal laws which rely on CAP. The Electronic Communications Privacy Act is the most prominent other example, and, since it is closely associated with the application of 4th Amendment jurisprudence to cyberspace, it is discussed *infra* Part III.D. Laws proscribing the transportation of child pornography, 18 U.S.C.A. § § 2, 2252(a)(1, 2), have been interpreted such that the Internet provides the mechanism of transportation, U.S. v. Mohrbacher, 182 F.3d 1041, (9th Cir 1999) (those responsible for providing to a customer visual depictions of minors engaging in sexually explicit conduct, by making them available on a computer bulletin board or by sending them via electronic mail, are properly charged with and convicted of shipping or transporting such

Recently, however, we have seen a fundamental example within torts: the resurrection of the moribund tort of trespass to chattels, and its wholesale application to the Internet. This tort is very similar to the criminal computer trespass material covered here, and indeed courts have applied the two as though they were interchangeable.

C. Resurrecting Trespass to Chattels

If courts have been speedy in accepting CYBERSPACE AS PLACE within the CFAA, then their reaction to it within tort law has been positively jaw-dropping. Notwithstanding scholars' early suggestions of its inappropriateness,[333] courts have rushed to resurrect the moribund, and unlamented, tort of trespass to chattels, and apply it wholesale to the new cyberspace arena. The rise of this extraordinary—and extraordinarily damaging—development can be blamed on the CYBERSPACE AS PLACE metaphor.

Perhaps the leading case in this area is eBay v. Bidder's Edge.[334] eBay, the major web-based auction site, created a huge following for their online auctions. It was, and remains, the major player in online auctions.[335] Bidder's Edge ran a website "AuctionWatch.com" which aggregated the auction details of many online auction sites, including eBay's.[336] The user was therefore able to see, on one AuctionWatch.com screen, all of the auction sites where a particular type of

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images, though distinction made in who was buyer, seller, shipper, etc). Laws against stalking may apply to online stalking, i.e. following complainant into multiple chat rooms, abusing her, etc, see Marczeski v. Law, 122 F.Supp.2d 315 (D.Conn.,2000) (accepting idea that anti-stalking law might apply online, but concluding claim was subsumed under harassment claim also asserted).

333 Chris Reed, *Controlling World Wide Web Links: Property Rights, Access Rights and Unfair Competition*, 6 IND. J. GLOBAL LEG. STUD. 167 (1998). But see Trotter Hardy, The Ancient Doctrine of Trespass to Web Sites, 1996 J. Online L. art. 7 <http://www.wm.edu/law/publications/jol/hardy.html>.

334 *eBay, Inc.* v *Bidder's Edge, Inc.*, 100 F.Supp.2d 1058 (N.D.Cal 2000). Though this case brought the "chattel trespass" approach to common attention, prior chattel trespass cases exist. See Dan L. Burk, *The Trouble with Trespass* (2000) 4 J. SMALL & EMERGING BUS. L. 27, 28-33 (discussing cases leading to eBay v. Bidders Edge) [Hereinafter Burk, *Trespass*]

335 *eBay, Inc.* v *Bidder's Edge, Inc.*, 100 F.Supp.2d 1058, 1060.

336 *Id* at 1061-2.

product was being auctioned, rather than having to search the many auction sites available. In order to provide this service, Bidder's Edge sent out "bots", or automated software query agents, to inquire (or "crawl") on all of the auction sites about the auctions that were being conducted.[337] Similar to the situation in Verio,[338] these queries were standard http requests which are individually indistinguishable from a human making the same request.[339] The information from eBay's site was reported back to Bidder's Edge and collected in its database.[340]

eBay was unhappy about these automated enquiries, ostensibly because the requests from the bots placed a heavy load on its servers.[341] It therefore sought to enjoin Bidder's Edge from using its bots to send requests to the eBay site. eBay argued that the trespass to chattels tort should be revived and applied to this new scenario, and the court concurred.[342]

eBay's most striking claim involved an analogy between the real world and the virtual one: "eBay's allegations of harm are based, in part, on the argument that [Bidder's Edge]'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."[343] This analogy relies directly on the CYBERSPACE AS PLACE metaphor: the idea that real-world physical robots can be mapped onto virtual software "bots" involves an acceptance that the virtual world is a space that can be roamed like the real one. The court, however, did not accept the argument, but not because it rejected the CYBERSPACE AS PLACE metaphor. Rather the court enthusiastically accepted the CYBERSPACE AS PLACE metaphor; however, reasoning with the metaphor lead to the rejection of this claim because the harm claimed was *de minimis*:

> This analogy, while graphic, appears inappropriate. Although an admittedly formalistic distinction, unauthorized robot intruders into a

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337 *Id* at 1061.

338 *Supra* note ___ and associated text.

339 The only difference is in the number of requests made in a given timeframe: the bot can make significantly more.

340 eBay, Inc. v Bidder's Edge, Inc., 100 F.Supp.2d 1058, 1061-2.

341 *Id* at 1063, 1064-5

342 *Id* at 1064-9.

343 *Id* at 1065-6.

> "brick and mortar" store would be committing a trespass to real property...[F]or the analogy to be accurate, the robots would have to make up less than two out of every one-hundred customers in the store, the robots would not interfere with the customers' shopping experience, nor would the robots even be seen by the customers. Under such circumstances, there is a legitimate claim that the robots would not pose any threat of irreparable harm. [344]

The CYBERSPACE AS PLACE metaphor is operating here, even though the court did not accept eBay's argument.[345] The court did not reject the extraordinary idea that Bidder's Edge's bots had invaded eBay's virtual space; it accepted this argument, but concluded that there was insufficient damage to sustain the injunction.

The court did, however, grant a preliminary injunction on another of eBay's claims. It concluded that irreparable harm would flow to eBay if the crawling continued.[346] The basis of the court's decision was that Bidder's Edge was engaged in a trespass to chattels,[347] a tort similar to the more familiar tort of conversion, but involving a lesser degree of annexation of the personal property.[348] The court outlined the necessary elements a plaintiff must establish for a chattel trespass claim in relation to computer systems: "(1) defendant intentionally and without authorization interfered with plaintiff's possessory interest in the computer system; and (2) defendant's unauthorized use proximately resulted in damage to plaintiff."[349]

Prior to eBay, there were a number of lesser-known cases on cyberspace chattel trespass, where the issue was whether the sending of unsolicited bulk email via a free email system involved a chattel trespass to the provider of the system.[350]

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344 *Id* at 1066.

345 *Id*.

346 *Id* at 1066-8, 1069-70.

347 *Id* at 1069.

348 See Thifty-Tel v. Beznik, 46 Cal. App. 4th 1559, 1567 (1996)

349 *Id* at 1069-70.

350 America Online, Inc. v. LCGM, Inc., 46 F.Supp.2d 444 (E.D.Va. 1998); America Online, Inc. v. IMS et al., 24 F.Supp.2d 548 (E.D.Va.1998) (finding that spammers committed a trespass to chattels); CompuServe, Inc. v. Cyber Promotions, Inc., 962 F.Supp. 1015, 1021 (S.D.Ohio 1997) (same); America Online, Inc. v. GreatDeals.net No. Civ.A. 99-62-A., (E.D.Va. 1999.) (same). See generally Mark D.

Courts fairly readily adopted this idea, no doubt as it was one of the few ways to fight the scourge of spam. We might have hoped it would be limited to these situations, however, after *eBay* courts enthusiastically embraced the expansion of the tort, and have been applying it whole-heartedly to situations well beyond the narrow confines of the initial circumstances of spam. In both of the Register.com v. Verio[351] and EF v Explorica decisions,[352] trespass to chattels was adopted by the courts in addition to the criminal computer trespass provisions discussed above. Most recently, in Intel v. Hamidi[353] the California courts have extended the principle to prohibit regular email sent to a corporation which has requested that the email not be sent. Ken Hamidi, a disgruntled ex-employee of Intel Corporation, sent a small number of emails to all employees of Intel, complaining of various injustices.[354] The court focused on the large number of employees this extended to, rather than the character or number of unique emails, and applied the approach of the earlier trespass to chattels cases to this new scenario.[355]

Though some courts have declined the application of this new tort to specific situations—typically where the use of the computer system was *de minimis*[356]—the evolution of the trespass to chattels action, from spam, through web sites, and culminating in regular email, demonstrates the importance of the CYBERSPACE AS PLACE metaphor. There are three pieces of evidence that the metaphor is operating in this new field of cyberspace tort. First, there is the nature of the chattel which is allegedly trespassed upon. Recall that it is the plaintiff's *personal* property which is supposed to be the subject of the tort. Initially, in *eBay* the court did focus on the personal property of the computer or

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Robins, *Electronic Trespass: An Old Theory in a New Context*, 15 COMPUTER LAW 1 (1998); Steven E. Bennett, *Canning Spam: Compuserve, Inc. v. Cyber Promotions*, Inc., 32 U. RICH. L. REV. 545 (1998) ; Burk, *Trespass supra* note ___.

351 Register.com, Inc. v. Verio, Inc., 126 F.Supp.2d 238, at 249-250 (S.D.N.Y. 2000)

352 EF Cultural Travel BV v. Explorica, Inc., 274 F.3d 577 (1st Cir 2001).

353 Intel Corp. v. Hamidi, 114 Cal. Rptr. 2d 244, 250 (C.A.1. 2001).

354 Id at 246-7.

355 Id at 251-2.

356 Ticketmaster Corp. v. Tickets.com, Inc., 2000 WL 1887522 at *4 (C.D.Cal.) (no showing that the use complained of interfered to any extent with the regular business of the plaintiff.); Oyster Software, Inc. v. Forms Processing, Inc. No. C-00-0724 JCS (N.D. Cal. 2001) (same).

the "computer system."[357] However, later in the decision, the court's analysis magically expanded to suggest the chattel included the plaintiff's bandwidth and server capacity.[358]

The cases struggle with the question of what exactly is the chattel in issue. At times the chattel is given as the simply the computer, but more often it is a non-specific combination of computer, bandwidth,[359] capacity,[360] processing power,[361] or network.[362] The reason for this imprecision is that courts are trying to reconcile the CYBERSPACE AS PLACE metaphor with the personal property basis of the chattel trespass theory. At times the personal property feature emerges, as when the focus is placed upon the computer itself.[363] Other times, the notion of the computer as an aspect of place emerges, as when the focus is placed on the bandwidth, capacity, processing, or network characteristics.

There is a second piece of evidence supporting the argument that CYBERSPACE AS PLACE is used in trespass to chattels. Contrary to the typical conception of torts to

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357 eBay, Inc. v Bidder's Edge, Inc., 100 F.Supp.2d 1058,1069 (Defendant interferes with "plaintiff's possessory interest in the computer system".)

358 *Id* at 1071. Initially the court is careful to indicate that the property is the computer system, and these chattels are affected by Bidder's Edge's use of the bandwidth and capacity ("eBay is likely to be able to demonstrate that BE's activities have diminished the quality or value of eBay's computer systems. BE's activities consume at least a portion of plaintiff's bandwidth and server capacity." *Id*.) Later the bandwidth and capacity *become* the chattel. ("[I]t is undisputed that eBay's server and capacity are personal property, and that BE's searches use a portion of this property. Even if, as BE argues, its searches use only a small amount of eBay's computer system capacity, BE has nonetheless deprived eBay of the ability to use that portion of its personal property for its own purposes." *Id*.)

359 *Id*.

360 *Id*.

361 Cyber Promotions v. Compuserve . 962 F.Supp. at 1022.

362 America Online, Inc. v. LCGM, Inc., 46 F.Supp.2d 444; America Online, Inc. v. IMS et al., 24 F.Supp.2d 548.

363 See Ticketmaster Corp. v. Tickets.com, Inc., 2000 WL 1887522 at *15-6. ("The computer is a piece of tangible personal property. It is operated by mysterious electronic impulses which did not exist when the law of trespass to chattels was developed, but the principles should not be too different. If the electronic impulses can do damage to the computer or to its function in a comparable way to taking a hammer to a piece of machinery, then it is no stretch to recognize that damage as trespass to chattels and provide a legal remedy for it.")

personal property,[364] courts in the cyberspace arena have ignored the damage requirement of the tort. When the trespass to chattels action was first mooted as applicable to the cyberspace arena, the consensus was that plaintiff would fail for want of appropriate damage to the chattel in question.[365] As a result, learned commentary suggested that plaintiffs would fail in the cyberspace world. Of course, the opposite is true. In most cases brought, the courts have ignored the damage requirement or been extremely flexible in determining what damage is sufficient.[366] The conclusion seems to be therefore that the tort is much more like trespass to real property, since real property trespasses have always been considered more serious and as a result the infringement per se is actionable without proof of damage.[367] As Dan Burk has concluded, by ignoring the harm requirement the courts which have developed trespass to chattels in the arena, "essentially reversed several hundred years of legal evolution, collapsing the separate doctrines of trespass to land and trespass to chattels back into their single common law progenitor, the action for trespass. But to do so effectively creates a brand new cause of action, unknown to modern jurisprudence."[368]

Then there is the final piece of evidence that CYBERSPACE AS PLACE rules in this old-made-new tort. The language that the courts use often unconsciously reveal

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364 WILLIAM L. PROSSER ET AL., CASES AND MATERIALS ON TORTS 80 (Univ. Casebook Series ed., The Foundation Press, Inc. 8th ed. 1988) (1951) (requirement of damage for trespass to chattels)

365 See Burk, *Trespass supra* note ____ at 39 ("the elements of common law trespass to chattels fit poorly in the context of cyberspace, and so the courts have been able to apply this claim to the problem of spam only by virtue of creative tailoring"); Reed, supra note ____ at 168; Susan M. Ballantine, *Computer Network Trespasses: Solving New Problems with Old Solutions* (2000) 57 WASH. & LEE L.REV. 209, 248 ("Ultimately, failure to allege or to support a showing of actual harm should have precluded Intel from prevailing on a trespass to chattels theory" but arguing that trespass to land should be applied here) I. Trotter Hardy, *The Proper Legal Regime for "Cyberspace",* 55 U. PITT. .L.REV. 993 (1994); Keller, *Condemned to Repeat the Past: The Reemergence of Misappropriation and other Common Law Theories of Protection for Intellectual Property* (1998) 11 HARV.J.L. & TECH. 401.

366 E.g. against the EFF's claim that the extension of the tort to non-spam email environments in Hamidi, the court said "EFF states if such loss of productivity 'is the applicable standard [of harm], then every personal e-mail that an employee reads at work could constitute a trespass.' The answer is, where the employer has told the sender the entry is unwanted and the sender persists, the employer's petition for redress is proper." Intel Corp. v. Hamidi, 114 Cal. Rptr. 2d 244, 250 (C.A.1. 2001). See generally Burk, *Trespass supra* note ____ at 33-8.

367 *Supra* note ____ and associated text.

368 Burk, *Trespass*, supra note ____ at 33.

how they are thinking about the action. This is, of course, exactly what Lakoffian metaphor theories teach us,[369] and the examples in this area are particularly striking. Courts forget that they are supposed to be talking about personal property, that is, a thing, and describe the defendant's actions as though they were trespassing on a place. For example, in Intel v. Hamidi, when the court dismissed defendant's First Amendment claim it noted that the ACLU's amicus brief: "cites cases which confer First Amendment protection in private tort actions, but they differ from the present case in that Hamidi was enjoined from trespassing *onto Intel's private property*."[370] One can only trespass *on* land or a cyberspace equivalent. The court should have said that the Hamidi trespassed *against* Intel's personal property, or some other language that indicated that the chattel was misappropriated or abused. Instead the court clearly had the real property action in mind when it dismissed the First Amendment claim. Indeed, this is bolstered when one views the cases it cited in support of the conclusion, most of which involved the posting of material in real property locations such as shopping centers, hardware stores, and so forth.[371] Earlier it had characterized Hamidi's actions as "*invading*" Intel's "internal, proprietary e-mail system,"[372] and characterized Hamidi's use of the system as "*entry*" into their system.[373] All of these examples show how the court was conceiving the chattels-based tort in real property terms.

Based on these three disparate groups of evidence, it is clear that courts are adopting the CYBERSPACE AS PLACE metaphor when applying the trespass to chattels tort to cyberspace environments. We have now seen this occur within criminal law and tort law. We see the same process occurring within constitutional law.

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369 Supra Part II.B. and II.C.

370 Intel Corp. v. Hamidi, 114 Cal. Rptr. 2d 244, 254 (C.A.1. 2001). (emphasis added)

371 The cases cited were: *NAACP v. Claiborne Hardware Co.* (1982) 458 U.S. 886 [73 L.Ed.2d 1215] (enjoinment from picketing or patrolling the premises of hardware store); *Organization for a Better Austin v. Keefe* (1971) 402 U.S. 415 [29 L.Ed.2d 1] (regarding leaflets distributed in a shopping center, posted in neighbors doors,etc); *Blatty v. New York Times* (1986) 42 Cal.3d 1033 (omission of plaintiff's book from the newspaper's Bestseller List); *Paradise Hills Associates v. Procel* (1991) 235 Cal.App.3d 1528 (signs posted on defendant's house and on other neighbors houses).

372 Intel Corp. v. Hamidi, 114 Cal. Rptr. 2d 244, 250.

373 *Id.*

D. The Cyberspace Constitution

> "Here, in [Justice Brandeis's opinion in *Olmstead v. United States*]... is a method that will be central to cyberspace's survival as a place where values of individual liberty are sustained. The method is translation: Brandeis first identifies values from the original Fourth Amendment, and then translates these values into the context of cyberspace."[374]

Having seen how criminal law and torts have adopted the CYBERSPACE AS PLACE metaphor, the question is whether we see this happening in constitutional law? There is, by now, a vast literature on the translation of the Constitution into cyberspace. Within this literature, two significant threads examine the protections granted by the First and Fourth Amendments, and in both of these areas we see the effect of the CYBERSPACE AS PLACE metaphor.

1. Sidewalks in Cyberspace

> "Minds are not changed in streets and parks as they once were. To an increasing degree, the more significant interchanges of ideas and shaping of public consciousness occur in mass and electronic media."[375]

The ideal of the public forum is of a place where citizens can congregate, air their grievances, debate public policy, and be confronted with new thoughts and arguments. Exemplars of public forums include the Athenian Senate and Hyde Park's Speakers Corner, and the myth of its influence and importance are hard to dispel.[376] Mythical or otherwise, the concept of the public forum holds a central place in the deliberative democracy ideal that is the dominant theoretical

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374 Lessig, *Reading*, *supra* note ____ at 873 (citations omitted).

375 Denver Area Educ. Telecomm. Consortium v. FCC, 518 U.S. 727, 802-03 (1996) (Kennedy, J., concurring in part, dissenting in part).

376 See Dan Hunter, *Philippic.com*, ____ CALIF. L. REV. ____ (2002) (forthcoming).

position of modern democracy theorists.[377] And of course it forms a fundamental role in First Amendment jurisprudence and has done since Justice Roberts' dicta in the *Hague v. Committee for Industrial Organization*.[378]

The ideal of a place where anyone may present their arguments is not lost on those examining cyberspace, and numerous articles have proselytized for the application of the public forum doctrine to cyberspace.[379] Initially, these articles voiced concern that cyberspace represents an virtual forum, rather than a physical one, and therefore concluded that public forum doctrine might not be extended to Internet communications. This was resolved quickly by the

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377 See e.g. See e.g. Bruce A. Ackerman, SOCIAL JUSTICE AND THE LIBERAL STATE (1980); William Bessette, THE MILD VOICE OF REASON (1984); John S. Dryzek, DISCURSIVE DEMOCRACY: POLITICS, POLICY, AND POLITICAL SCIENCE (1990); John Hart Ely, DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW (1980) James S. Fishkin, DEMOCRACY AND DELIBERATION: NEW DIRECTIONS FOR DEMOCRATIC REFORM (1991); James S. Fishkin, THE VOICE OF THE PEOPLE (1995); Amy Gutmann & Dennis Thompson, DEMOCRACY AND DISAGREEMENT (1996); Jurgen Habermas, BETWEEN FACTS AND NORMS (William Rehg trans., 1996); John Rawls, POLITICAL LIBERALISM (1993); Joshua Cohen, *Deliberation and Democratic Legitimacy*, in DELIBERATIVE DEMOCRACY 67 (James Bohman & William Rehg eds., 1997). On this notion translated into cyberspace see Cass R. Sunstein, *The First Amendment in Cyberspace*, 104 YALE L.J. 1757, 1786 (1995); Cass R. Sunstein, REPUBLIC.COM (2001).

378 307 U.S. 496 at 515 (1939). ("(w)herever the title of streets and parks may rest, they have immemorially been held in trust for the use of the public and, time out of mind, have been used for purposes of assembly, communicating thoughts between citizens, and discussing public questions. Such use of the streets and public places has, from ancient times, been a part of the privileges, immunities, rights, and liberties of citizens.")

379 Timothy Wu, *Application-Centered Internet Analysis*, 85 VA. L. REV. 1163 (1999) [Hereinafter Wu, *Internet Analysis*]; David J. Goldstone, *The Public Forum Doctrine in the Age of the Information Superhighway (Where Are the Public Forums on the Information Superhighway?),* 46 HASTINGS L.J. 335 (1995) [Hereinafter Goldstone, *Where*]; David J. Goldstone, *A Funny Thing Happened on the Way to the Cyber Forum: Public vs. Private in Cyberspace Speech*, 69 U. COLO. L. REV. 1, 8 (1998) [Hereinafter Goldstone, *Funny Thing*]; Edward J. Naughton, *Is Cyberspace a Public Forum? Computer Bulletin Boards, Free Speech, and State Action*, 81 GEO. L.J. 409, 428-41 (examining conditions under which the public forum doctrine could apply to public message areas of early bulletin board systems); Edward V. DiLello, *Functional Equivalency and its Application to Freedom of Speech on Computer Bulletin Boards*, 26 COLUM. J.L. & SOC. PROBS. 199 (1993); Allen S. Hammond, IV, *Private Networks, Public Speech: Constitutional Speech Dimensions of Access to Private Networks*, 55 U. PITT. L. REV. 1085 (1994); Allen S. Hammond, IV, *Regulating Broadband Communication Networks*, 9 YALE J. ON REG. 181 (1992); James N. Horwood, *Public, Educational, and Governmental Access on Cable Television: A Model to Assure Reasonable Access to the Information Superhighway for all People in Fulfillment of the First Amendment Guarantee of Free Speech*, 25 SETON HALL L. REV. 1413 (1995); Noah D. Zatz, *Sidewalks in Cyberspace: Making Space for Public Forums in the Electronic Environment*, 12 HARV. J. L. & TECH. 149 (1998).

recognition that the courts will protect metaphysical spaces as strongly as physical ones.[380]

Given that the embodiment question was not an issue, the question then became the appropriate character of the public forum within cyberspace. Rather than treat all of cyberspace as one undifferentiated space, the most subtle scholars suggested instead that there are multiple forums in cyberspace.[381] As we become more familiar with cyberspace, we have come to consider some of these forums as clearly having public character,[382] while others will be of a limited public nature, and some will be clearly non-public spaces.[383] So, for example, David Goldstone suggests that chatrooms, news groups, and certain types of email discussion lists should be considered public forums,[384] based upon a set of criteria mapped from the physical space.[385] Antithetically, Timothy Wu argues that email does not have a public character and so applying the public forum doctrine to one's private email account permits unsolicited bulk email and other pernicious evils.[386] Other commentators analyze the application of the public

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380 Rosenberger v. Rector and Visitors of the Univ. of Va., 515 U.S. 819, 830 (1995). (extending public forum to the metaphysical). See also Cornelius, 473 U.S. at 801 (applying forum analysis to solicitation of donations for nonprofit charities by a federal organization); Ark. Educ. Television Comm'n v. Forbes, 523 U.S. 666 (1998) (applying forum analysis to broadcast of election debate by state-owned public television broadcaster); Perry Educ. Ass'n v. Perry Local Educators' Ass'n, 460 U.S. 37 (1983) (applying forum analysis to public school mail facilities).

381 Goldstone, *Where* supra note ___ (arguing that cyberspace should be treated for public forum purposes not as a single forum, but as a city, with many forums within it, some of which should be treated as public forums and others of which should not).

382 Goldstone, *Funny Thing, supra* note ___at 8. ("Some, although by no means all, of these forums can be characterized as public forums. As more Americans become increasingly comfortable with cyberspace, the claim that certain portions of the Internet deserve or require "public forum" status will become compelling.")

383 Goldstone, *Funny Thing, supra* note ___at 8; Eugene Volokh, *Freedom of Speech in Cyberspace from the Listener's Perspective*, 1996 U. CHI. LEGAL F. 377, 407-10 (1996)

384 Goldstone, *Funny Thing, supra* note ___at 18-9.

385 Goldstone, *Where, supra* note ___at 383 (the criteria are that "(1) the cyber forum is owned or controlled by the government; (2) it is not operated at a profit; (3) receipt of forum messages is not restricted; and (4) the forum affords viewpoint-neutral access to a reasonably large number of senders.")

386 Wu, *Internet Analysis*, *supra* note ___ at 1167-9.

forum doctrine to other cyberspace features such as links on web sites provided by state actors.[387]

The suggestion of multiple forums existing within cyberspace finds support in the differing approach of courts when asked to apply the public forum doctrine, or other First Amendment principles, to different types of Internet content.[388] In Reno v ACLU,[389] the Supreme Court struck down provisions of the Communications Decency Act[390] on First Amendment grounds. Though the Court did not invoke the public forum doctrine, it is not hard to see how strongly the elements of public forum doctrine influenced the Court. As Steven Gey has noted[391] the language of the court assumes that the Internet has extremely strong public forum characteristics. For example, the Court said that the Internet contains "vast democratic forums,"[392] with content "as diverse as human thought."[393] The language used not only invoked the public forum trope

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387 R. Johan Conrod, *Linking Public Websites to the Public Forum*, 87 VA. L. REV. 1007 (2001) (arguing that the speech present in web links is a revolutionary form of speech that avoids almost all of the traditional justifications for speech regulation, even those justifications approved in the public forum context, such as the unwilling listener and the limited capacity problem).

388 This is to be contrasted to the differing analysis made with respect to cable and public access television, see *Denver Area Educational Telecommunications Consortium v. FCC* 518 U.S. 727 (1996) (holding against the application of public forum doctrine to cable television); *Arkansas Educational Television Commission v. Forbes*, 523 U.S. 666 (1998) (same, except in limited case of political debate) cf *Turner Broadcasting System v. FCC*, 512 U.S. 622, 636 (1994) (concluding that the First Amendment applied to cable television). See generally Robert Kline, *Freedom of Speech on the Electronic Village Green: applying the First Amendment Lessons of Cable Television to the Internet*, 6 CORNELL J.L. & PUB. POL'Y 23 (1996); Conrod, *supra* note ____ at 1015-20.

389 Reno v. American Civil Liberties Union, 117 S. Ct. 2329, (1997) (striking down two provisions of the Communications Decency Act as abridging the freedom of speech protected by the First Amendment). See also Cyberspace Communications, Inc. v. Engler, 55 F.Supp.2d 737 (E.D.Mich.,1999) (Michigan statute adding criminal prohibitions against using computers or the Internet to disseminate sexually explicit materials to minors offended free speech guarantee of the First Amendment).

390 Communications Decency Act, 47 U.S.C. § 223(a)(1)(B)(ii), 223(d) (1996).

391 Steven G. Gey, *Reopening the Public Forum-From Sidewalks to Cyberspace*, 58 OHIO ST. L.J. 1535, 1610-8 (1998) [Hereinafter Gey, *Sidewalks*]

392 American Civil Liberties Union v Reno, 117 S.Ct. 2329 at 2343.

393 *Id*. at 2344 (quoting Reno v. American Civil Liberties Union, 521 U.S. 844, 868 (1997)).

of the pamphleteer handing out leaflets on the streetcorner,[394] but also relied on seminal public forum cases.[395] The facts of the case were such that the Court was not required specifically to apply or endorse the public forum doctrine. However, it is apparent that members of the Court assumed that cyberspace has public forum characteristics. As a result, post-*Reno*, some have argued that the best way of resolving all First Amendment concerns online is to apply the public forum doctrine.[396]

Part of the reason for the Court not adopting the public forum doctrine in *Reno* can be explained by the distributed nature of the content under consideration. The pornography which the CDA sought to regulate, and which was the subject of *Reno*, can be found in disparate corners of the Internet, from web sites, to news groups, to private emails. As a result, the concerns expressed above about applying the public forum doctrine to cyberspace as a whole, rather than to individual forums within cyberspace, mitigates against the use of the doctrine. It seems that the *Reno* Court did not seek to adopt the public forum doctrine to all Internet places, since to do so would lead to overbroad protection for some types of content. Given the discussions presented previously,[397] it is perfectly appropriate that the Court did not apply the public forum doctrine. This difficulty has not occurred with other types of Internet content, notably unsolicited bulk email. In some early spamming cases[398] courts were asked to rule that the electronic mail system amounted to a public forum. The cases revolved around the activities of a professional spammer, Cyber Promotions,

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394 *Id*. at 2344. ("Through the use of Web pages, mail exploders, and newsgroups, the same individual can become a pamphleteer.")

395 Id. at 2348-49 ("The Government's position is equivalent to arguing that a statute could ban leaflets on certain subjects as long as individuals are free to publish books. In invalidating a number of laws that banned leafleting on the streets regardless of their content-we explained that 'one is not to have the exercise of his liberty of expression in appropriate places abridged on the plea that it may be exercised in some other place.")(quoting Schneider v. State, 308 U.S. 147, 163 (1939))

396 Gey, *Sidewalks*, *supra* note ____ at 1610-8. But see Wu, *Internet Analysis, supra* note __ at 1167-9.

397 *Supra* note ____ and associated text.

398 Cyber Promotions, Inc. v. America Online, Inc., 948 F. Supp. 436 (E.D. Pa. 1996); CompuServe, Inc. v. Cyber Promotions, Inc., 962 F. Supp. 1015 (S.D. Ohio 1997). A third case with the same Platiff and Defendant around the same time dealt with an antitrust claim against the ISP, Cyber Promotions, Inc. v. America Online, Inc., 948 F. Supp. 456, 459 (E.D. Pa. 1996).

which made its livelihood from emailing vast numbers of email addresses.[399] As in the other spam cases discussed previously,[400] a large Internet Service Provider (ISP) sought to stop the spammer from abusing the email facilities which it provided for their subscribers. The ISPs either returned the emails in a form likely to crash the spammers' server,[401] or brought suit against them for trespass to chattels.[402] The spammers response was to argue that the email systems were public forums, and as a result to sue on the basis that the ISPs' actions amounted to First Amendment violations. The courts dismissed these arguments easily. Public forum doctrine did not apply to these sorts of cases since (1) the forum to which the speech right was asserted was privately created; and (2) the entity that asserted the right was motivated by purely private purposes, and was attempting to engage in "commercial speech" related to those purposes.[403] The ISPs were neither state actors, not did their private conduct have the character of state action.[404]

The interesting observation here is that the courts did not reject the application of the public forum doctrine to this type of Internet resource. In fact these courts applied the usual scope limitations on the public forum doctrine, and concluded that, as in the physical world, public forums do not extend to private spaces.[405] It is quite clear that the courts do consider that public forum arguments might be applied to email systems, though they have been loathe to find the necessary

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399 Cyber Promotions, Inc. v. American Online, Inc., 948 F. Supp. 436, 438 (E.D.Pa. 1996) (explaining how Cyber Promotions activities burdens e-mail servers because it consists of sending millions of messages each day).

400 *Supra* Part III.B. and III.C.

401 Cyber Promotions, Inc. v. America Online, Inc., 948 F. Supp. 436 (E.D. Pa. 1996).

402 CompuServe, Inc. v. Cyber Promotions, Inc., 962 F. Supp. 1015 (S.D. Ohio 1997). See discussion, *supra* Part III.B. and III.C.

403 See Cyber Promotions, Inc. v. America Online, Inc., 948 F. Supp. 436, 441; CompuServe, Inc. v. Cyber Promotions, Inc., 962 F. Supp. 1015, 1025-26.

404 See Cyber Promotions, Inc. v. America Online, Inc., 948 F. Supp. 436,441-5; CompuServe, Inc. v. Cyber Promotions, Inc., 962 F. Supp. 1015,1025-27.

405 Hudgens v. NLRB, 424 U.S. 507, 519-21 (1976) (private mall accessible to community not public forum); Pruneyard Shopping Center v. Robins, 447 U.S. 74 (1980) (state free to determine if private mall accessible to community a public forum) See generally Harvey Rishikof & Alexander Wohl, *Private Communities or Public Governments: "The State Will Make the Call,"* 30 VAL. U. L. REV. 509, 541 (1996).

characteristics of the public space.[406] Commentators have however suggested a number of situations where this might be found: where for example the private email system was used for voting,[407] or where more extensive state law protections might apply.[408] The consensus seems to be that email may be a public forum, and is only limited by the situations presented to date.[409]

Other types of cyberspace content have also been the subject of the public forum questions, most notably web sites controlled by state actors. In Putnam Pit v. City of Cookeville[410] the question revolved around a city-owned website for the City of Cookeville, Tennessee that regularly provided links on its pages to other sites of interest to those who might be browsing the city's website. The proprietor of a tabloid newspaper and website, *The Putnam Pit*, had investigated an unsolved murder that occurred in Cookeville. He requested that the city provide a link from their site to *The Putnam Pit*. The city eventually refused, and the proprietor of *The Putnam Pit* sued, alleging *inter alia* that his First Amendment rights were infringed since the city website was a public forum.[411] The District Court held that the website in issue was a nonpublic forum[412] and the Sixth Circuit Court of Appeals agreed.[413] The Sixth Circuit focused initially on the requirement laid down in *Hague* that the public forum be "devoted to assembly and debate"[414] Though the initial formulation of the public forum doctrine required that the forum be set devoted "from time immemorial"[415] the court did not reject the idea

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406 See also Intel Corp. v. Hamidi, 94 Cal. App. 4th 325, 114 Cal. Rptr. 2d 244, 257 (Ct. App. 2001).

407 Goldstone, *Funny Thing, supra* note ____ at 20-22.

408 Goldstone, *Funny Thing, supra* note ____ at 23-7.

409 But see Wu, *Internet Analysis*, supra note ____ at 1167.

410 221 F.3d 834 (6th Cir. 2000).

411 Id at 839-41.

412 Putnam Pit v. City of Cookeville, 23 F. Supp. 2d 822, 831 (M.D. Tenn. 1998)

413 221 F.3d 834 (6th Cir. 2000).

414 221 F.3d 834 at 842 (quoting Perry Educ. Ass'n v. Perry Local Educators' Ass'n, 460 U.S. 37, 45 (1983)

415 *Hague v. Committee for Industrial Organization,* 307 U.S. 496 at 515 (1939).

that forums might exist in more modern environments.[416] However, the website in issue simply did not provide any place for assembly and debate.[417] It was a site that provided some tourist-related information, and information regarding jobs, taxes, and municipality news. The links that were provided were essentially local municipality information, or advertising links, to a local truck company, law firm, and college.[418] Since there was no "free exchange of ideas between members of the public" there was no public forum.[419] On the issue of whether there was a designated or limited public forum, the court asked whether the city made the website available to an entire class of speakers, and concluded that it did not.[420] "Cookeville had not provided open access to links to the city's site, whereby anyone could set up their own link from the city's site to an outside Web site without going through the city on a one-by-one basis."[421] The court then examined "whether the exclusion of certain expressive conduct is properly designed to limit the speech activity occurring in the forum to that which is compatible with the forum's purpose."[422] It concluded here that the Plaintiff also failed. The website was similar to a bulletin board, and its intention was to provide information to the community. The site did not allow free expression, and was hence not a public forum.[423] One commentator has concluded that the Sixth Circuit was wrong in its assessment, and argued that public websites and their hypertext links are subject to public forum analysis, though the reasons for this need not detain us.[424]

The evidence now seems convincing: when it comes to First Amendment jurisprudence and specifically the application of the public forum doctrine, courts and commentators have clearly adopted the CYBERSPACE AS PLACE

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416 221 F.3d 834 at 843 (quoting Int'l Soc'y for Krishna Consciousness v. Lee, 505 U.S. 672, 697-98 (1992) (Kennedy, J., concurring in judgment)).

417 *Id*.

418 *Id* at 841.

419 *Id*. at 843.

420 Id. at 843-4.

421 *Id*. at 844.

422 *Id*. at 843-4.

423 *Id*. at 844.

424 Conrod, *supra* note _____ at 1031-5.

metaphor.[425] Though courts may eventually reject the application of the doctrine to various online spaces, this is no different from the rejections of the application of the doctrine in the physical world. Even if, for example, courts in the spam cases concluded that the email system is a private space, this does not alter the fact that the courts were analyzing these systems exactly as if they were real world spaces such as private postal systems. And where, as in *Putnam Pit*, courts conclude that website links are not public forums, nonetheless the CYBERSPACE AS PLACE metaphor leads judges to conclude that the site is a space that may be analyzed in the same way as physical spaces.

2. Searching Cyberspace

"the house of every one is to him as his castle and fortress."[426]

The opening clause of the Fourth Amendment guarantees "[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures."[427] The Framer's motivation underlying this clause was, as is well-known, to remove forever the threat of the "writs of assistance". These hated British warrants allowed pre-Revolutionary officers of the Crown "in their discretion, to search suspected places for smuggled goods"[428]

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425 Other areas of cyberspace have come in for sustained First Amendment analysis. Most notable here are the cases on domain names and the First Amendment. *See e.g.* Name.Space, Inc. v. Network Solutions, Inc., 202 F.3d 573 (2nd Cir 2000) (The existing Internet generic Top Level Domains (gTLDs) are not protected speech, because the DNS limits them to three-letter extensions lacking in expressive content); National A-1 Advertising, Inc. v. Network Solutions, Inc., 121 F.Supp.2d 156 (D.N.H.,2000) (Portion of Internet address containing second-level domain name was not a discrete forum for speech, precluding claim that entity responsible for registering proposed domain names violated First Amendment rights of applicants denied registration on grounds that proposed names were vulgar); PGMedia, Inc. v. Network Solutions, Inc., 51 F.Supp.2d 389 S.D.N.Y.,1999 (domain names did not constitute "speech" for First Amendment purposes.)

426 4 William Blackstone, Commentaries 223, and Semayne's Case, 77 Eng. Rep. 194 (K.B. 1604), quoted in Wilson v. Layne, 526 U.S. 603, 609-10 per Chief Justice Rehnquist (1999).

427 U.S. Const. amend. IV.

428 Boyd, 116 U.S. at 625.

Suspicionless searches used as form of oppression was "perhaps the most prominent event which inaugurated the resistance of the colonies..."[429]

Since it was intended to protect against property-based warrants, early Fourth Amendment jurisprudence focused on requirements of space and place. The Amendment protects people generally from searches and seizures, and specifically names their physical person, their houses, and their papers and effects. The three basic spaces of protection are, therefore, the citizens' physical selves—"persons"—their real property—"houses"—and their personal property—"papers, and effects..." That which is protected against also assumes a spatial component: a person or place is searched and/or a thing is seized.

The early judicial interpretations enshrined this spatial assumption. Justice Bradley's majority opinion in the Supreme Court's first significant,[430] and most venerated,[431] examination of the Fourth Amendment, Boyd v. United States, focused on governmental incursions on private property. A firm was accused of improperly claiming customs exemptions for some plate glass which it allegedly had not used in the federal buildings for which it had been contracted.[432] The Court was asked whether the government could subpoena Boyd's papers in the action against the firm. Bradley's majority opinion concluded that the government could not. Individuals had a property interest in their home that restricted "all invasions on the part of the government and its employees of the sanctity of a man's home and the privacies of life."[433] Boyd's papers were Boyd's property, the private property interest outweighed the government's interest in

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429 *Id*.

430 116 U.S. 616 (1886). There were two Fourth Amendment opinions before *Boyd*, Livingston v. Moore, 32 U.S. 469, 482 (1877), and Ex Parte Jackson, 96 U.S. 727, 733 (1877). Both summarily concluded that the Amendment was violated without significant analysis.

431 Justice Brandeis said Boyd "will be remembered as long as civil liberty lives in the United States," *Olmstead*, 277 U.S. at 474. Justice Frankfurter said it was "the guide to the interpretation of the Fourth Amendment to which the Court has most frequently recurred," *Harris*, 331 U.S. at 160. Alexander Bickel:""a shining and enduring demonstration" of the proper role of history in constitutional interpretation." Alexander M. Bickel, *The Original Understanding and the Segregation Decision*, 69 HARV. L. REV. 1, 5 n.14 (1955). See JACOB W. LANDYNSKI, SEARCH AND SEIZURE AND THE SUPREME COURT 57 (1966).

432 Boyd, 116 U.S. at 618.

433 *Id*. at 630.

policing customs violations.[434]

For the many years, Fourth Amendment cases followed this property-oriented conception. Government searches were limited where they entered "constitutionally protected areas."[435] Starting with Hester v. United States[436] and ending with Mapp v. Ohio[437] the Court outlined a series of protected and unprotected places.[438] However, by the late 1960s this bright line test came to be seen as too limited, too inflexible, and intellectually suspect. A new test emerged which removed property as the central touchstone of regulation and replaced it with an assessment of whether the searched party had a "reasonable expectation of privacy" upon which the government search improperly intruded.[439] The effect of the new test was not to abandon the constitutional commitments inherent in the old property-based conception of Fourth Amendment protection; rather it was to take the established commitments and remove the somewhat inflexible and unpalatable effect of the narrower property requirement.[440] For example, under the old test, wiretapping of a defendant's home phone was not an unconstitutional search, since the wiretapping occurred on public phone lines and not in defendant's house.[441] Under the new test, wiretapping of a public phone booth was held to be a Fourth Amendment violation because defendant had a reasonable expectation of privacy: "What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected."[442]

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434 *Id.* at 631-2

435 *Berger v. New York*, 388 U.S. 41, 59 (1967).

436 265 U.S. 57 (1924) (holding that "open fields" were not constitutionally protected areas by applying common law "open fields" exception).

437 367 U.S. 643 (1961).

438 See Lanza v. New York, 370 U.S. 139, 143 (1962) (protected areas include house, office, store, hotel room, automobile, and taxicab, but concluding that visitors' room of jail was not protected area).

439 Katz v. United States, 389 U.S. 347 (1967); Camara v. Municipal Court, 387 U.S. 523 (1967); Terry v. Ohio, 392 U.S. 1 (1968).

440 See Michael Adler, *Cyberspace, General Searches, and Digital Contraband" The Fourth Amendment and the Net-Wide Search*, YALE L.J. 1093, 1100-1 (1996).

441 Olmstead v. United States, 277 U.S. 438, 471 (1928).

442 Katz v. United States, 389 U.S. 347, 351-2 (1967) (citations omitted).

These principles are influenced by the CYBERSPACE AS PLACE metaphor in two basic ways. The first is the straightforward application of the "reasonable expectation of privacy" standard to actions which we undertake in cyberspace. The principle has been used to frame a significant portion of the ongoing online privacy debate, at least in regards the requirements of government actors and law enforcement in monitoring online communications and transaction. So, various courts and commentators have examined the privacy expectations of sending email, of storing material on a private computer, or on a network disk, and so forth. Though the rubric asks what is the user's expectation of privacy, it is not hard to argue that the analysis online comes down to whether the space searched is public or private. In some cases, say in a publicly accessible chatroom,[443] the online environment is clearly a public space: one posts messages to anyone who happens to be in the chatroom at the time. Here the user has no reasonable expectation of privacy. Other communications carry with them expectations of privacy and we can consider these places as clearly private: the content of any given email, if not the message header information of the same email.[444] Other communications in other spaces may fall somewhere between these two extremes: instant messages to a small buddy list might be one or the other, depending on who can read the messages. When it comes to translating the Fourth Amendment directly into the online world, the CYBERSPACE AS PLACE metaphor still structures our understanding. **need to expand this**

The second important reflection of CYBERSPACE AS PLACE in the analysis of the Fourth Amendment online is found in the Electronic Communications Privacy Act (ECPA).[445] This Act was intended to extend Fourth Amendment protections to the online world, and it reflects similar CYBERSPACE AS PLACE conceptions.

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443 United States v. Charbonneau, 979 F. Supp. 1177, 1184 (S.D. Ohio 1997) (defendant has no reasonable expectation of privacy in contents message sent to chat room after the message has been received by chat room participants). See also United States v. Hambrick, 55 F. Supp.2d 504, 508 (W.D. Va. 1999), aff'd, 225 F.3d 656, 2000 WL 1062039 (4th Cir. 2000) (unpublished opinion) (no Fourth Amendment protection for user's subscriber information obtained from Internet service provider); United States v. Kennedy, 81 F. Supp.2d 1103, 1110) (D. Kan. 2000) (same).

444 18 U.S.C. § 3127(4) (law enforcement may extract packet header information and addressing information Net communications in same way as addressing information for traditional phone calls.)

445 Electronic Communications Privacy Act ("ECPA"), 18 U.S.C. §§ 2510-11, 2701-11.

The fundamental protection is against retrieval of "stored communications",[446] the implication being that these communications have been put in a private place and should only be read by law enforcement where our normal civil rights would apply. Where Fourth Amendment principles are translated into the online environment, either by courts or legislative pronouncements, we find the cyberspace as place metaphor having significant hold over our understanding of the best way to guarantee our civil rights.

E. Extensions and Conclusions

As the previous sections have shown, in the three fundamental legal areas, crime, torts, and constitutional law, we find the CYBERSPACE AS PLACE metaphor influencing the legal regime. Though these are, perhaps, the most obvious central examples of the effect of the metaphor, they are not the only legal fields where CYBERSPACE AS PLACE has affected the analysis of judges, legislators, and scholars. At the risk of belaboring the point, it is worthwhile sketching some other areas where the metaphor operates. In less detail therefore, consider the influence of the metaphor in the concept of online zoning, and in jurisdiction.

1. Zoning and Jurisdiction

> "[T]he Roman pantheon gave a proud place to Terminus, god of boundaries. Today, the maps negotiated by politicians and drafted by urban planners are patchworks of ownership boundaries, zoning boundaries, and jurisdictional boundaries. Within jurisdictional borders, local laws and customs apply, local power is exerted by some over others ... But bits answer to terminals, not Terminus; these lines on the ground mean little in cyberspace."[447]

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446 18 U.S.C. §2710.

447 MITCHELL, CITY OF BITS, *supra* note ____.

"Zoning" is the real-space mechanism by which local municipalities set restrictions on land use, in order to meet certain societal objectives such as physically separating children from adult entertainment establishments. The idea behind this spatial mechanism has been extremely influential in the scholarly and judicial conception of cyberspace. Notable here is Lawrence Lessig's work. He also formulates a conception of "cyber-zoning" where parts of the web are made off-limits to children and other vulnerable groups.[448] The concept of "cyber-zoning"—so obviously dependent on the CYBERSPACE AS PLACE metaphor—is found in a number of legislative and judicial pronouncements. For example Justice O'Connor in *Reno* dismissed the heavy hand of the Communications Decency Act as "little more than an attempt by Congress to create 'adult zones' on the Internet."[449] She concluded that government regulations limiting or denying access to sexually explicit speech found on the Internet are nothing more than impermissible "zoning laws."[450]

There is a neat flipside to the idea of online zoning. An adult website called voyeurdorm.com was webcasting pornographic material from a house in a residential zone in Tampa, Florida.[451] The city brought an action claiming that the site's operators were violating the city's zoning ordinances, and the District Court agreed.[452] However, the Court of Appeals reversed, concluding the adult content was not viewable from the street, and, within the physical world, to all intents and purposes the house was just a residential use. The adult content was only available online, and therefore no realworld zoning laws were breached.[453] "The City Code cannot be applied to a location that does not, itself, offer adult entertainment to the public. As a practical matter, zoning restrictions are

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448 See Lawrence Lessig & Paul Resnick, *Zoning Speech on the Internet*, 98 MICH. L. REV. 395 (1999) (examining concept of zoning certain parts of cyberspace, notably pornographic content); Lessig, CODE, *supra* note ___; Lawrence Lessig, *What Things Regulate Speech: CDA 2.0 vs. Filtering*, 38 JURIMETRICS J. 629, ** (1998) (zoning applied to speech generally)

449 Reno, 117 S. Ct. at 2351 (O'Connor, J., concurring in part and dissenting in part).

450 *Id*.

451 Voyeur Dorm, L.C. v. City of Tampa, Fla, 265 F.3d 1232, 1233 (11th Cir. 2001).

452 Voyeur Dorm, L.C., et al., v. City of Tampa, Fla., 121 F.Supp.2d 1373 (M.D.Fla.2000).

453 Voyeur Dorm, L.C. v. City of Tampa, Fla, 265 F.3d 1232, 1236 (11th Cir. 2001).

indelibly anchored in particular geographic locations... It does not follow, then, that a zoning ordinance designed to restrict facilities that offer adult entertainment can be applied to a particular location that does not, at that location, offer adult entertainment."[454]

Discussions of online jurisdiction also have strong spatial characteristics. The most obvious example of this is in the seminal article by the Davids Johnson and Post, *Law Without Borders*.[455] Johnson and Post articulate a theory of Internet governance that presumes that existing geographical divisions are incapable of regulating the Internet. They argue that the members of Internet communities can regulate themselves. Implicit in this theory, and indeed in the title of their article, is that cyberspace is a separate, identifiable place, that can be regulated as a space unto itself.[456] As discussed previously, the theory proposed by Johnson and Post has not taken hold.[457] National legal systems have not abrogated their power to the new place of cyberspace, but rather sought to apply the traditional jurisdictional approaches to this new environment.[458] This does not invalidate the metaphor. Physical spaces may trump virtual spaces in the jurisdiction stakes, but this does not change our deeply-held conception that there is some place online.

2. Conclusions

The net effect of all of the above examples is to demonstrate the hitherto unrecognized importance of the CYBERSPACE AS PLACE metaphor within Internet law and regulation. Based on the above, it is probably not too far-fetched to suggest that the CYBERSPACE AS PLACE metaphor provides the basis for understanding almost any aspect of cyberspace regulation. However this has not

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454 *Id*.

455 Johnson & Post, *Law and Borders*, *supra* note ____.

456 *Id*.

457 *Supra* Part I.B.

458 *Supra* Part I.A. See Goldsmith, *Against Cyberanarchy*, *supra* note ____ at 1239-41.

been the point of this Part: instead, the purpose has been to describe the pervasive character of the CYBERSPACE AS PLACE metaphor in these areas of law.

This Part has been careful to provide only a description of the regulatory environment, and to demonstrate the evidence for the metaphor. It has not made any normative statements about whether the metaphor is a good or bad thing, or whether the effects of the metaphor are desirable or retrograde. However, the next Part explicitly looks to the normative implications of the metaphor. I argue that the metaphor is leading us inexorably towards an undesirable policy outcome: the staking out of private claims in cyberspace, and a concomitant reductions in the public "ownership" of the space. In the Part that follows therefore I explain the effect of the metaphor, and suggest why and how we might resist the impact of the metaphor.

IV. THE DIGITAL ANTICOMMONS

"Cyberspace is opening up, and the rush to claim and settle is on."[459]

From the 15th Century onwards, land holding in England changed profoundly. Property held by a number of people in common was appropriated, in various ways, to the exclusive possession of powerful gentry.[460] This was called the "Enclosure Movement" after the fencing and enclosing of the commons by these new private landholders.[461] That most fundamental of property rights, the right to exclude,[462] was used to alter the default position of land tenure from commons

459 MITCHELL, CITY OF BITS *supra* note ___ at 167.

460 J.A. Yelling, COMMON FIELD AND ENCLOSURE IN ENGLAND 1450-1850, 7-95 (1977)

461 *Id.* at 5-6

462 *See* Kaiser Aetna v. United States, 444 U.S. 164, 176, 100 S.Ct. 383, 62 L.Ed.2d 332 (1979) (characterizing "the right to exclude others" as "one of the most essential sticks in the bundle of rights that are commonly characterized as property").

property to private property. This default position remains to this day,[463] though there are some notable exceptions.[464]

Recently we have seen a similar process occurring within intellectual property. Commentators have begun noting the increasing private control of what previously had been intellectual commons property. James Boyle has called this the "Second Enclosure Movement,"[465] and he and other scholars have detailed the enclosure movement within intellectual property[466] and the concomitant erosion of the public domain.[467] The enclosure of the intellectual commons takes

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463 For an account of the rise of the enclosure movement, see Daniel R. Coquillette, *Mosses from an Old Manse: Another Look at some Historic Property Cases About the Environment*, 64 CORN. L. REV. 761, 807-809 (1979).

464 Limited commons property regimes have recently come in for significant analysis, contrary to the previous emphasis entirely on completely private and completely public systems. See ROBERT C. ELLICKSON ET AL., PERSPECTIVES ON PROPERTY LAW, xii (2d ed. 1995) (citing shared dormitory room as common property); Robert C. Ellickson, *Property in Land*, 102 YALE L.J. 1315, 1394-95 (1993) (noting that the majority of Americans live in limited "commons" ie multi-person households).

465 Boyle, *Enclosure Movement*, supra note ____. See also James Boyle, *Cruel, Mean, or Lavish: Economic Analysis, Price Discrimination and Digital Intellectual Property*, 53 VAND. L. REV. 2007, 2010 (2000) ("Over the last twenty years, there has been an enormous extension of intellectual property; a far- ranging enclosure movement over the public domain, paralleling the eighteenth century's enclosure of common lands.")

466 See Yochai Benkler, *Free As the Air To Common Use: First Amendment Constraints on the Enclosure of the Public Domain*, 74 N.Y.U. L. REV. 354, 354-5 (1999) ("We are in the midst of an enclosure movement in our information environment. In other words, our society is making a series of decisions that will subject more of the ways in which each of us uses information to someone else's exclusive control."); Yochai Benkler, *Siren Songs and Amish Children: Autonomy, Information, and Law*, 76 N.Y.U. L. REV. 23, 112 (2001) (arguing that the information enclosure movement "is a serious cause for concern in terms of autonomy, for it increasingly subjects the cultural commons from which we draw to form our understandings of the world to the control of a small number of professional commercial producers."); Yochai Benkler, *An Unhurried View of Private Ordering in Information Transactions*, 53 VAND. L. REV. 2063, 2063 (2000) (arguing "why economic justifications interposed in favor of this aspect of the enclosure movement are, by their own terms, undetermined."); Benjamin Kaplan, AN UNHURRIED VIEW OF COPYRIGHT (1966). See also Elizabeth L. Eisenstein, THE PRINTING REVOLUTION IN EARLY MODERN EUROPE 83-84 (1983) (describing how the literary common was subject to enclosure movements with the emergence of printing privileges of publishers, booksellers, and stationers).

467 Jessica Litman, *The Public Domain*, 39 Emory L.J. 965 (1990); Dan L. Burk, *Muddy Rules for Cyberspace*, 21 CARD. L. REV. 121 (1999); Julie E. Cohen, *Copyright and the Jurisprudence of Self-Help*, BERKELEY TECH L.J. 1189 (1998); Paul A. David, "A Tragedy of the Public Knowledge 'Commons'? Global Science, Intellectual Property and the Digital Technology Boomerang," *Stanford Institute for Economic Policy Research*, SIEPR Discussion Paper, no. 00-02, Stanford University, Stanford, CA, 2000; Mark A. Lemley, *Beyond Preemption: The Law and Policy of Intellectual Property Licensing*, 87 CALIF. L. REV. 111 (1999);

many forms: ongoing term extensions for copyright[468] such that no work has moved from copyright into the public domain for decades,[469] scope extensions for patents to include business methods[470] lifeforms,[471] and genome sequences,[472] new intellectual property rights for hitherto unprotected collections of facts, [473] and the erosion of fair use in areas such as parodies[474] and decompilation of

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Lawrence Lessig,, "Reclaiming a Commons," Berkman Center "Building a Digital Commons," Harvard University, Cambridge, MA, May (1999); Robert P. Merges, *Property Rights Theory and the Commons; The Case of Scientific Research*, 13(2) SOCIAL PHILOSOPHY AND POLICY 145 (1996); J.H. Reichman, and Jonathan A. Franklin, *Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information*, 147 U. PA L. REV. 875 (1999); Carol M. Rose, *From Local to Global Commons: Private Property, Common Property, and Hybrid Property Regimes: Expanding the Choices for the Global Commons: Comparing Newfangled Tradable Allowance Schemes to Old-fashioned Common Property Regimes*, 10 DUKE ENV. L. & POLICY F 45 (1999).

468 Copyright Term Extension Act Pub. L. No. 105-298, 112 Stat. 2827 (1998).

469 See Statement of Professor Peter Jaszi, Washington College of Law, American University, On S. 4839, The Copyright Term Extension Act of 1995, Before the Senate Judiciary Committee, Sept. 20, 1995 (characterizing CTEA as "perpetual copyright on the installment plan"). See also Lawrence Lessig, *Copyright's First Amendment*, 48 UCLA L. REV. 1057 (2001) (analysis of the constitutional deficiencies of CTEA); LESSIG, FUTURE OF IDEAS, supra note ___ (same). See also Jane C. Ginsburg, Wendy J. Gordon, Arthur R. Miller, and William F. Patry, *Symposia: The Constitutionality of Copyright Term Extension: How Long Is Too Long?*,18 CARDOZO ARTS & ENT. L.J. 651 (2000) (differing views on CTEA and term extensions generally).

470 State Street Bank & Trust Co. v. Signature Financial Services, 149 F.3d 1368 (Fed. Cir. 1998). See LESSIG, FUTURE OF IDEAS, *supra* note ___; Boyle, *Enclosure Movement*, supra note ___ at 5.

471 See Boyle, *Enclosure Movement*, supra note ___ at 4.

472 See Boyle, *Enclosure Movement*, supra note ___ at 6. See also Arti Rai, *Regulating Scientific Research: Intellectual Property Rights and the Norms of Science*, 94 Nw. U. L. Rev. 77 (1999)(noting concerns with propertization of human genome data).

473 Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases, 1996 O.J. (L77) 20; Collections of Information Anti-Piracy Act, H.R. 354, 106th Cong. (1999). See Boyle, *Enclosure Movement*, *supra* note ___ at 5-6; Yochai Benkler, *Constitutional Bounds of Database Protection: The Role of Judicial Review in the Creation and Definition of Private Rights in Information*, 15 BERKELEY TECH. L.J. 535, 575-86 (2000) (arguing that CIAA is unconstitutional); Malla Pollack, *The Right to Know? Delimiting Database Protection at the Juncture of the Commerce Clause, the Intellectual Property Clause, and the First Amendment*, 17 CARDOZO ARTS & ENT. L.J. 47 (1999) (same). But see Jane C. Ginsburg, "*No Sweat?" Copyright and Other Protection of Works of Information After* Feist v. Rural Publications, 92 COLUM. L. REV. 338 (1992) (arguing that database protection legislation would be constitutional); Robert DeNicola, *Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works*, 81 COLUM. L. REV. 516, 521-22 (1981) (advocating the protection of "works" of this kind).

474 See Boyle, *Enclosure Movement*, *supra* note ___ at 6.

computer programs,[475] and the rise of digital rights management systems.[476] The trend is so obvious that it is no longer confined to earnest scholarly musings, and courts are now being asked to consider the problem. Recently the Supreme Court granted *certiorari* in *Eldred v. Reno*.[477] This case challenges congressional extensions of copyright terms, on the basis that this practice offends against the constitutional limitation that copyright may only be granted for a limited period.[478]

If the intellectual property is the subject of the Second Enclosure Movement, then the Internet is the subject of a related trend, which we can term the "Cyberspace Enclosure Movement." This particular enclosure movement began when online actors who cheerfully adopted the benefits of the online commons, decided to stake out their own little claims in cyberspace, and used the law to fence off their little cyber-holding, keep out intruders, and "privatized" what once had all the characteristics of a commons.

The previous Parts of this Article have detailed the way in which we think of cyberspace as though it were a place. In law, places become property, and so the next section describes the property-based analysis that is used in regulating cyberspace. Specifically Part IV.A shows how concepts from real property have lead to the Cyberspace Enclosure Movement, and the resulting assumption that cyberspace places are private landholdings. From this, we see a splintering of the Internet commons into virtual private holdings.

"So what?" we might conclude. Private ownership of resources of itself is not problematic; indeed private ownership is generally considered to be the most efficient form of allocation of property resources, and the economic history of the last five hundred years has been characterized by the movement from the public to the private. The quintessential exemplar of the benefits of private ownership

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475 *Id*.

476 The two most notable examples of which are the Secure Digital Music Initiative (SDMI) and the DVD Copy Control Association (DVD-CCA). See http://www.sdmi.org (describing SDMI); DVD-CCA v. McLaughlin, 2000 WL 48512 (Cal. Super. 2000)(describing DVD-CCA). See generally Boyle, *Enclosure Movement*, supra note ____ at 6; Samuelson, *Public Domain*, supra note ____ at 89.

477 Eldred v. Reno, 239 F.3d 372 (D.C. Cir. 2001), aff'g. 74 F. Supp.2d 1 (D.D.C 1999), *cert. granted,* No. 01-618, U.S. Sup. Ct. (2002).

478 U.S. Constitution, Article I, sec. 8, cl. 8 (Congress may grant exclusive rights for "limited times"). See also LESSIG, FUTURE OF IDEAS, *supra* note ____.

is, of course, Garrett Hardin's tragedy of the commons: public resources are overused and destroyed where there is no private property interest in limiting the use.[479] However, as Michael Heller has recently demonstrated, private ownership can lead to the opposite of the tragedy of the commons: the tragedy of the anti-commons.[480] Anti-commons property occurs when multiple parties have an effective right to preclude others from using a given resource, and as a result no-one has an effective right of use. The tragedy of the anti-commons occurs when these multiple rights of preclusion lead to inefficient use of the resource. Part IV.B argues that this is precisely where the CYBERSPACE AS PLACE metaphor leads. The rise of the Cyberspace Enclosure Movement means that we are moving to a digital anti-commons, where no-one will be allowed to access competitors' cyberspace "assets" without licensing access, or other agreeing to some other transactionally-expensive permission mechanism. Against this, Part IV.C suggests that we must restore the digital commons. We need to recognize that commons property in cyberspace is a desirable, and not subject to the usual tragedies of the commons. And that to lose it would be the real tragedy of the digital commons.

A. The Cyberspace Enclosure Movement

If we think of cyberspace as a place, then the legal response is to impose a real property-based regulatory structure on the place. Moreover, because our real-world property system is based on private land tenure, the legal assumption is to use property mechanism to delineate and fence-off these new property entitlements in cyberspace.

However, the Internet initially assumed a number of commons-like features. Indeed, without these commons characteristics, the Internet would not be as we understand it today. Take the most fundamental process of information transfer. There is no centralized server which arranges transfer of packets in the system, and so the transfer of data from one computer to another is entirely

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479 *Infra* Part II.B.

480 *Infra* Part II.B.

dependent on many computers voluntarily transferring packets onto the next machine in the path.[481] This process is called peering, and until recently was performed for free, as a matter of network etiquette and a recognition that the commons benefit of the network was dependent on this process.[482] A similar process initially occurred with email transport. Until the advent of spam, many email servers would maintain an "open relay" for email.[483] The relay provided a means for transfer of email messages from systems that did not have the resources to provide email to its users, or was unable to accommodate the Internet's email protocol.[484] In essence, the email relay server donated their processor and bandwidth to systems less fortunate than themselves. Donating resources was found elsewhere: as Lawrence Lessig notes, the University of Chicago (circa 1995) allowed anyone to jack into their network and use the Internet.[485] A more recent example is the proliferation of wireless Internet access points, many of which provide their access for free.[486] Free access, free

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481 "Peering is the arrangement of traffic exchange between Internet service providers (ISPs). Larger ISPs with their own backbone networks agree to allow traffic from other large ISPs in exchange for traffic on their backbones. They also exchange traffic with smaller ISPs so that they can reach regional end points. Essentially, this is how a number of individual network owners put the Internet together." Whatis definition, http://searchnetworking.techtarget.com/sDefinition/0,,sid7_gci212768,00.html (visited April 3, 2002).

482 *Id*.

483 "An open relay (sometimes called an insecure relay or a third-party relay) is an SMTP e-mail server that allows third-party relay of e-mail messages....In effect, the owner of the server...donates network and computer resources to the sender's purpose." Whatis definition, http://searchwebmanagement.techtarget.com/sDefinition/0,,sid27_gci782509,00.html (visited April 3, 2002).

484 "In the past, open relays were used intentionally to facilitate mail relay between the separate closed e-mail systems (such as UUCP or FidoNet) served by the Internet. However, the Internet has expanded enormously since then, and the potential for abuse has expanded accordingly. Open relays are sometimes used legitimately: they are frequently used to support mobile users connecting to a corporate network through an ISP or to support multiple domains within an organization, and are sometimes used for debugging connectivity or to circumvent a known routing problem. However, other mechanisms can be used to route an authorized user around a closed relay." Whatis definition, http://searchwebmanagement.techtarget.com/sDefinition/0,,sid27_gci782509,00.html (visited April 3, 2002).

485 LESSIG, CODE *supra* note ____ at 26-7.

486 See comments of Professor David Farber, "The Cauldron of Innovation" BusinessWeek April 2002, available at

relay, and peering—for the common benefit of all. Commons property defined the early architecture of the Net.[487]

Consider then the various services and protocols that work at the later above the architecture, starting with the masterstroke that defines the web: the ability to link to every other website, and the network externalities that arose as a result.[488] Many individual websites adopt the commons mentality: Project Gutenberg scans and places public domain texts on the web for all to use,[489] Project Perseus translates Ancient Greek and Latin classic texts into English and posts them.[490] Napster, Gnutella, Morpheus, and Kazaa encourage the wholesale sharing of files,[491] much to the anger of the music industry and others.[492] And so on.

Any number of examples exist.[493] Free and shared resources, created for the betterment of all, are the online norm, not the exception—so much so, that online content companies bemoan the "gift economy" of the Net, and the difficulty of getting anyone to pay for the digital content they want to sell.[494] However, this digital commons is under attack. The Cyberspace Enclosure Movement threatens to privatize out of existence much of the commons character of the network.

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http://www.businessweek.com//technology/content/apr2002/tc2002041_3117.htm (visited April 1, 2002). An example of these free wireless networks can be found at http://www.nocat.net (visited April 2, 2002).

487 On the nature of the commons, see Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711 (1986); Elinor Ostrom, GOVERNING THE COMMONS (1992).

488 An externality that is coming under pressure directly by linking policies, *infra* note _____ and associated text.

489 http://promo.net/pg/ (visited April 3, 2002).

490 http://www.perseus.tufts.edu/PerseusInfo.html (visited April 3, 2002).

491 http://www.openp2p.com/pub/a/p2p/2001/07/02/morpheus.html (visited April 3, 2002).

492 http://www.mp3newswire.net/stories/2001/sue_morpheus.html (visited April 3, 2002).

493 For a comprehensive list of commons-like features of the Internet and related telecommunications infrastructure, see LESSIG, FUTURE OF IDEAS, *supra* note __ at 17-100.

1. Property and Invitees

Let is say that I am a consumer retailer, or a parking garage operator, or an accountant. I own or, via lease have a right of exclusive possession over, the premises where I do business. Of course I want you to come into my premises in order to shop, or park your car, or engage me to shred documents. However I do not want you to have complete freedom of access to the premises, and so I designate you an invitee or licensee, who is entitled to enter the premises under certain conditions. These might include that you not steal the stock in the shop, or that you not sue me for scratching your car, or that you not stage a sit-in in my office. I post these conditions on the front door of the premises, so that you can see them and be advised of the conditions of your invitation into the premises.[495]

The basic framework therefore is this: your exclusion from my place is guaranteed by property law, and the terms of your entry into my place are governed by contract law.

As detailed above,[496] this is exactly what we see in cyberspace. The trespass to chattels[497] and computer trespass[498] actions applied to cyberspace operate using precisely this framework. You are forbidden from entering the cyberspace place, except upon conditions which have been set by the proprietor of that space. Sometimes the space involved is a website,[499] sometimes it is an email system.[500] Sometimes the conditions are set using Terms Of Use of the site,[501]

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494 See e.g. Interview with Stewart Brand, available at http://www.pbs.org/wgbh/pages/frontline/cyberspace/brand.html (visited April 3, 2002).

495 See Kermarec v. Compagnie Generale Transatlantique, 358 U.S. 625 (1959).

496 *Supra* Part III.

497 *Supra* Part III.C.

498 *Supra* Part III.B.

499 See e.g. Register.com, Inc. v. Verio, Inc., 126 F.Supp.2d 238 (S.D.N.Y. 2000); EF Cultural Travel BV v. Explorica, Inc., 274 F.3d 577 (1st Cir 2001).

500 See e.g Intel Corp. v. Hamidi, 94 Cal. App. 4th 325, 114 Cal. Rptr. 2d 244 (Ct. App. 2001).

501 See e.g. Register.com, Inc. v. Verio, Inc., 126 F.Supp.2d 238 (S.D.N.Y. 2000). But see Specht v. Netscape Communications Corp., 150 F.Supp.2d 585, 591-96

other times they are set by robot exclusion headers,[502] confidentiality agreements,[503] or a letter from a lawyer.[504] However, the approach is the same. You are forbidden from entering my cyber-place unless you agree to my terms. If you access my place in defiance of my terms then you lose your invitee status, and become a trespasser, subject to both civil[505] and criminal action.[506]

Unlike the terms of entry in physical establishments, cyberspace Terms of Use are often extraordinarily broad, and grant rights to the proprietor that are extraordinary. The owners of the filesharing system Kazaa, Sharman Systems, outraged many when it was revealed that by downloading the system they had agreed to allow Sharman to turn on their computers and use them in a massive

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(S.D.N.Y.2001) (holding that terms of use by themselves could not bind person downloading software, where opportunity to present terms was otherwise available)

502 See e.g. Register.com, Inc. v. Verio, Inc., 126 F.Supp.2d 238 (S.D.N.Y. 2000). See *supra* Part III.B.

503 See e.g. EF Cultural Travel BV v. Explorica, Inc., 274 F.3d 577 (1st Cir 2001). See *supra* Part III.B.

504 See e.g. Intel Corp. v. Hamidi, 94 Cal. App. 4th 325, 114 Cal. Rptr. 2d 244 (Ct. App. 2001).

505 Supra Part III.C.

506 *Supra* note III.B. Note that the amount of damage that needs to be established is minimal: Shurgard Storage Centers, Inc. v. Safeguard Self Storage, Inc., W.D.Wash.2000, 119 F.Supp.2d 1121 (Plaintiff stated claim against competitor, for alleged damage to its computers arising from competitor's alleged receipt from former employees of trade secret information obtained in violation of Computer Fraud and Abuse Act (CFAA), despite claim that no damage occurred since information remained intact within computers; employer suffered loss in form of expenses incurred in modifying computers to preclude further data transfer); EF Cultural Travel BV v. Explorica, Inc., 2001 WL 1579620 C.A.1 (Mass.),2001(Company's payment of consultant fees for purpose of assessing whether its website had been compromised by competitor's alleged violation of Computer Fraud and Abuse Act (CFAA), consisting of allegedly unauthorized access to and gleaning of price information from website, was compensable "loss" under CFAA, even though there was no physical "damage" to company's data or systems. 18 U.S.C.A. § 1030(e)(8), (g).) Chance v. Avenue A, Inc., 165 F.Supp.2d 1153 W.D.Wash.,2001 (Each time Internet advertising company placed "cookie" on visiting user's computers for purpose of monitoring his or her web activity constituted separate "act" under Computer Fraud and Abuse Act (CFAA) provision setting $5,000 threshold of damage for individual act in order to state valid cause of action. 18 U.S.C.A. § 1030(e)(8)); America Online, Inc. v. National Health Care Discount, Inc., 2001 WL 1525824 N.D.Iowa.W.Div.,2001 (Advertiser violated Computer Fraud and Abuse Act (CFAA) when e-mailers acting as its agent sent unsolicited bulk e-mail (UBE) to customers of internet services provider (ISP); access was not authorized, information was obtained from protected computers, and ISP sustained damages in excess of $5,000 in single year. 18 U.S.C.A. § 1030(a)(2)(C), (e)(8)(A).).

peer-to-peer network.[507] By using Microsoft products and websites you have—at one time or another— (1) agreed to allow them to scan the contents of your PC and download whatever software it deems necessary,[508] (2) agreed not to abuse or flame anyone,[509] (3) given them a license to use your email in any way it sees fit,[510] and (4) agreed not to use their products to create any "objectionable" material.[511]

Other terms are impossible to understand, or purport to bind the user on an ongoing basis, no matter what changes to the terms the proprietors might make:

> "You agree to the terms of this Agreement by using our Site. If you do not agree to these terms, you may not use this Site. We may modify this Agreement at any time with or without notice, by posting it on our Site and successive modification will become effective immediately. You agree to review this Agreement from time to time."[512]

And of course, every site has unique terms, so that users cannot "enter" sites with a reasonable understanding of what to expect, based on experience. The legal expectation is that every user will read every term of use, no matter how complex, no matter how hard-to-find. And users must do this every time they go to an online place.

Some commercial operators of websites go so far as to post Terms of Use that forbid the quintessential web mechanism of establishing a hypertext link to their site, except for certain narrow purposes. For example, the accounting firm KPMG claimed that only those who had negotiated a web-linking agreement with them could include a link to their site.[513] KPMG's lawyers threatened legal action against a commentary site which had been critical of KPMG if it did not

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507 http://news.com.com/2100-1023-875016.html (visited April 3, 2002).

508 http://www.infoworld.com/articles/op/xml/02/02/11/0202110pfoster.xml (visited April 3, 2002)

509 http://www.passport.com/Consumer/TermsOfUse.asp (visited April 3, 2002).

510 http://www.stanford.edu/class/ee380/Abstracts/TermsOfUse.010404.html (visited April 3, 2002)

511 Microsoft Frontpage user license, available at http://www.microsoft.com/frontpage/

512 United Behavioral Health website Terms of Use, http://www.provweb.com/html/UseAgreement.html (visited April 1, 2002).

remove the link to kpmg.com.[514] Pitney Bowes, a stationery supplier, seeks to place a series of conditions upon anyone who would seek to link to their site: including a promise not to imply endorsement by Pitney Bowes, and a promise not to use their logo without permission.[515] Take another example:

> "You may link to our homepage only. We prohibit linking to other content within our site without our express written permission."[516]

Or another:

> "We reserve the right to prohibit links to our material if, in our sole judgement, the use is inappropriate or inconsistent with our goals and standards."[517]

Countless other variants exist, their numbers limited only to the creativity of the lawyers who draft them: all links are forbidden except text links to the main domain name;[518] only links from non-controversial sites permitted;[519] or only

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513 Farhad Manjoo, "Big Stink Over a Simple Link", http://www.wired.com/news/business/0,1367,48874,00.html (visited April 1, 2002).

514 *Id*.

515 "Linking To This Site Policy Statement - If you would like to link to this site, please read and comply with the following: (i) link to, but do not replicate, this site's Materials; (ii) link only to the home page at www.pitneybowes.com; (iii) do not create a browser or border environment around this site's Materials (commonly known as framing); (iv) do not imply that Pitney Bowes is endorsing you or your products or misrepresent the extent of your relationship with Pitney Bowes; and (v) do not use the Pitney Bowes Signature (logo) in the hyper link without permission from Pitney Bowes.". Pitney-Bowes website, Linking Policy, http://www.pb.com/cgi-bin/pb.dll/ourcompany/pb_company_editorial.jsp?contentKey=ed_8510&locale=US&language=ENG&homepg=index_flash&groupOID=8121&groupCatName=Our+Company (visited April 1, 2002). Thanks to Mark Eckenwiler for drawing my attention to many of the examples in this section.

516 United Behavioral Health website Terms of Use, http://www.provweb.com/html/UseAgreement.html (visited April 1, 2002).

517 HealthyResources.com website, Copyright and Links, http://www.healthyresources.com/cust-relations/copyright.html (visited April 1, 2002).

518 "Links to http://www.purinaone.com other than a text link containing our domain name or a link containing the graphic banner(s) below are forbidden." Purina One Linking Policy, http://www.purinaone.com/linking.asp (visited April 1, 2002)

519 "If you would like to link to TI's web site, you must comply with the following guidelines...Your site should not contain content that could be construed as distasteful, offensive or controversial." Texas Instruments Linking Policy, http://education.ti.com/global/linkpol.html (visited April 1, 2002)

those links which do not adversely affect the linked-to site,[520] however this might be construed. Other terms of use forbid the process of framing content in another page, in order to stop content aggregators from using their pages.[521] And so on.

2. The Consequences

The enclosure of cyberspace represents a fundamental change in the way the Internet operates. Rules of property to exclude, and rules of contract to provide a limited form of entry, leads to an extraordinary series of splintered interests in cyberspace. Hitherto, cyberspace has flourished because the default rule has been to allow common access and use of the resources. Now, we see the emergence of a default rule of exclusion. This unduly simplifies the situation however, since in fact the proliferation of unique terms of use leads to a situation where there is no default rule at all, but a series of unique rules for access. This gives rise to an explosion of different rights of access and use. The section that follows articulates the theoretical reason why this is a terrible consequence. Before turning to the theory, it is worth considering here a number of very practical implications of the Cyberspace Enclosure Movement.

First, searching the Net will become more difficult and less complete. The search engines which index the Net and the Web will be severely constrained, for two reasons. The "owner" of an indexed site can stop search engines that rely on any kind of competitive business model. These business models might be as simple

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520 "The Field Museum ordinarily does not prohibit links to its web site, provided that any such link does not improperly connote an endorsement by or affiliation with The Field Museum, or otherwise adversely impact The Field Museum." Field Museum linking policy, http://www.fmnh.org/linking_policy.htm (visited April 1, 2002)

521 See e.g. HealthyResources.com website, Copyright and Links, http://www.healthyresources.com/cust-relations/copyright.html (visited April 1, 2002) (""We do not permit framing our pages—links which present material originating on this site within a frame or border that makes it appear as if our material were originating on another web site. This can make it impossible for the viewer to bookmark, pursue further links, or identify the actual source of material. The use of our material within frames such that our material appears as if it were the creation of another site or organizer infringes on our rights.")

as placing competitor's advertisements on the page where the indexed site is listed. The site can draft terms of use forbidding this particular type of access. Even if this were not to happen, the costs of assessing terms of use, or other "de-authorizing" device will be prohibitive. We can say goodbye to new types of search engines that affect—in any way—the business models of the sites that they index.

We can also kiss goodbye to aggregation products that were one of the consumer boons. AuctionWatch was a better product for consumers than eBay, since it covered more auctions.[522] However eBay succeeded in shutting it down using the trespass to chattels tort. Any type of innovative aggregation product is subject to the same problem. The same is true for comparison shopping agents, which find the most competitive price for a given product.[523] Why should Amazon or CDNow allow comparison agents which index their sites for the benefit of consumers, and not themselves?

Then there is the issue of email. *Hamidi* makes it a tort to email an computer where the proprietor of that system has indicated that it does not wish your email.[524] Does this mean that one is obliged to read the "Terms of Acceptable Email Usage" of every email system that one sends email to in the course of an ordinary day? If the University of Pennsylvania has a policy that sending a joke by email is an unauthorized use of their system, then under the current enclosure movement you have trespassed on their system when you email me a Calvin and Hobbes cartoon.

These are just some of the practical problems that the Cyberspace Enclosure Movement leads to. The next section argues that these practical problems are a consequence of a more general theoretical concern. The enclosure movement leads to a tragedy of the digital anticommons.

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522 *Supra* Part III.C.

523 See Brief of *Amicus Curiae* of Internet Law Professors, *eBay, Inc. v. Bidder's Edge, Inc.*, No. 00-15995 (9th Cir. June 22, 2000).

524 Intel Corp. v. Hamidi, 94 Cal. App. 4th 325, 114 Cal. Rptr. 2d 244 (Ct. App. 2001). Of course the spam cases discussed in Parts III.B. and III.C. do the same, but might be

B. The Tragedy of the Digital Anticommons

Every first year law student knows Garrett Hardin's "tragedy of the commons".[525] A resource will suffer the tragedy of the commons where it is prone to overuse because too many owners have a right to use the resource, and no one has the right to exclude any other.[526] The exemplars are fisheries which suffer from over-fishing, fields which are over-grazed, forests which are over-logged, and so forth.[527] The tragedy of the commons is among the most compelling arguments given in favor of private ownership of resources, and against forms of commons or state ownership.

Until a short time ago the tragedy of the commons was the only tragedy in town. However, Michael Heller has recently introduced the concept of the "tragedy of the anticommons", and systematically explicated its effect.[528] The tragedy of the anticommons is, in most ways, the mirror image of the tragedy of the commons. Anticommons property exists where multiple owners have a right to exclude others from a scarce resource, and no one has an effective privilege of use.[529] Heller's great insight was not in theorizing of the existence of the tragedy of the anticommons as a theoretical opposite of the commons. Others had already suggested that anticommons property might exist in theory.[530] However, prior

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distinguished on the basis that they deal only with spam, a particularly loathsome form of email.

525 Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243, 1244-45 (1968).

526 This observation was made earlier. See H. Scott Gordon, *The Economic Theory of a Common-Property Resource: The Fishery*, 62 J. POL. ECON. 124, 134 (1954) (providing earlier description of the tragedy of the commons, using fishery as example) and Anthony D. Scott, *The Fishery: The Objectives of Sole Ownership*, 65 J. POL. ECON 116-124 (1955) (same).

527 See Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243, 1244-45 ; See also Heller, *Anticommons*, *supra* note ___ at 622, 624.

528 Heller, *Anticommons*, *supra* note ___. See also Michael A. Heller, *The Boundaries of Private Property*, 108 YALE L.J. 1163 (1999) [Hereinafter Heller, *Boundaries*]; Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 SCI. 698 (1998); Michael A. Heller, *Three Faces of Private Property*, 79 OR. L. REV. 417 (2000) [Hereinafter Heller, *Three Faces*]; Hanoch Dagan & Michael A. Heller, *The Liberal Commons*, 110 YALE L.J. 549 (2001).

529 Heller, *Anticommons*, *supra* note ___; Heller, *Three Faces*, *supra* note ___ at 423-4.

530 See e.g. Frank I. Michelman, *Ethics, Economics and the Law of Property*, in 24 NOMOS 3, 6 (1982) (anticommons as theoretical opposite of commons, created by

anticommons theories relied on the idea that—since this was the exact opposite of the tragedy of the commons—for anticommons property to exist *everyone* in the world must have a right to preclude. Given such difficult preconditions, theorists were hard-pressed to identify a real world correlate, and therefore take the argument further.[531]

Heller's dual contributions were to show how a limited number of exclusory rights would be sufficient to generate anticommons property, and perhaps most important, to provide copious real world examples of anticommons property.[532] His initial example was found on the streets of post-communist Moscow: large numbers of shops stood vacant while vendors hawked their wares from flimsy kiosks lined up in front.[533] Why did these vendors stand around in the cold when they might utilize the shops immediately behind them? The answer was in the complex series of entitlements to those shops which had been created in the transition to a market economy.[534] There was such a complex hierarchy of divided and coordinated rights that, effectively, no one was able to exploit the resource. There was always someone who could object to the use, or holdout for the entire value of the resource.[535] Once he observed the anticommons in action on the Moscow street, he was able to find other examples which previously had been ignored by the literature, because the concept of the anticommons simply had not existed. A telling example was in the post-earthquake reconstruction of Kobe, Japan. Years after the earthquake, notwithstanding billions in aid, large tracts of Kobe remained in rubble.[536] The reason for this was a "world class" tangle of property interests:[537] "In one block of Kobe, over 300 renters, lessees,

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regulatory regime). See generally Heller, *Anticommons*, *supra* note ___ at 661-4.

531 Frank I. Michelman, *Ethics, Economics and the Law of Property*, in 24 NOMOS 3, 6 (1982).

532 Heller, *Anticommons*, *supra* note ___ at 627-60.

533 Heller, *Anticommons*, *supra* note ___ at 623-4.

534 Heller, *Anticommons*, *supra* note ___ at 628-33.

535 Heller, *Anticommons*, *supra* note ___ at 628-33.

536 Jathon Sapsford, Quake-Hobbled Kobe Shows How Land Law Can Paralyze Japan, *Wall St. J.*, Dec. 12, 1996, at A1.; Heller, *Anticommons*, *supra* note ___ at 664

537 Heller, *Anticommons*, *supra* note ___ at 664

landowners, and subletters own often-overlapping claims,"[538] and each one had to agree before rebuilding could begin.

The metaphor of CYBERSPACE AS PLACE, and the enclosure movement that uses the metaphor is leading us to a digital anticommons. Consider the "property" in issue not as individual websites or email systems, but rather the commons property of the network resources: the web or the email system that we all used to share. We used to enjoy a general and untrammeled "right" of access to websites, email systems, fileservers, and so forth. The Cyberspace Enclosure Movement has lead to a default principle of exclusion, with a billion unique terms providing the exceptions governing when we can "enter" these cyber-places. The splintering of rights of access is a like the overlapping rights on the Moscow street. We do not have a right to access the commons property any more.

As an example, consider the website terms of use. With a series of permission rules, it is necessary for me to inspect, every time I enter a website, whether the particular use I make is legal. In a world of zero transaction costs this would not turn the commons into an anticommons. However where transaction costs are real, and, as in the case of reading and understanding long tracts of legalese, where these costs are extremely high, no-one has an effective right of use, since the cost outweighs any conceivable benefit. The same is true for email, or any new protocol that the Net can support: the old commons property can easily be transformed into anticommons property.

Until Heller formulated his theory of the anticommons, there had been some literature on the anticommons as the exact symmetrical opposite of the commons.[539] Since the commons was defined as every member having a right to use, the assumption was that the anticommons could only come into existence if every member had the right to exclude. Since "member" in this context meant any person, the requirement was thought to mean that an anticommons would only occur if, and only if, every single human being could preclude other uses. This meant that, practically, the anticommons could never exist. Heller redefined the anticommons to occur where multiple persons (but not everyone) had a right to exclude others such that no-one has an effective (as opposed to

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538 Heller, *Anticommons*, *supra* note ____ at 664

539 See Michelman, *supra* note _____.

perfect) right to use.[540] This makes it possible to see that a small number of people may effectively block the best use by others.[541] Heller and Rebecca Eisenberg demonstrated this within the arena of bio-medical patents, most notably in the patenting of gene fragments.[542] These fragments be patented before researchers have identified any corresponding gene, protein, biological function, or potential commercial product.[543] However it is likely that subsequent valuable products, such as therapeutic proteins or gene-based diagnostic tests, will almost certainly require use of multiple fragments. Thus a small number of the early owners of gene patents can create an anticommons for all.[544] The same is true for the digital anticommons. It does not take a large number of enclosed cyberspace places to effectively create the digital anticommons. As it stands, the law upholds the right to enclose and create these new forms of private property, on terms dictated by the proprietor's attorneys. The diligent user of the network now must take account of these new entry rules, and consequently transactions costs for all uses rises dramatically. It will not take too many more cases for us to see a significant change in the online behavior of the users. At this point, even though we have only a small number of rights-holders blocking the uses, I believe that we will see the emergence of the anticommons.

This observation leads to the penultimate point for the digital anticommons. Consider again the example of Heller and Eisenberg: patenting individual gene fragments before we understand their use fully (or at all). They note that the anticommons may be real without us being aware of its existence. Empty Moscow shopfronts advertise the existence of the anticommons: indeed were it not

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540 Heller, *Anticommons*, *supra* note ____ at 625-6, 659; Heller, *Three Faces*, *supra* note ____ at 424

541 Heller, *Three Faces*, *supra* note ____ at 424-5.

542 Heller & Eisenberg, *supra* note ____ at 700-1. See also Rosemarie Ziedonis, *Standing on the Crowded Shoulders of Giants: Fragmented Rights and Incentives to Patent in the Semiconductor Industry*, Mack Center for Technological Innovation working paper, The Wharton School, University of Pennsylvania.

543 *Id*.

544 *Id*.

so obvious, Heller's theory might never have been born.[545] The anticommons in gene patents is not obvious, because it is impossible for us to know what innovative new commercial product would be developed if the commons did not exist.[546] We are not able to combine the gene fragments in novel ways, because the anticommons owners make it impossible to do so. Hence, the existence of the anticommons precludes the better use of the resource, and at the same time masks the recognition that there might be a better use at all.

It is this invisible type of anticommons which is most troubling, when we consider the effect of the CYBERSPACE AS PLACE metaphor, and the digital anticommons which we are creating. If we continue marking out the anticommons claims in cyberspace, not only will we preclude better, more innovative, uses of cyberspace resources, but we will remove our ability to see what might be possible. The Internet was characterized by early innovative uses, such as content aggregation sites, shopping comparison agents, and so forth. Each one of these involved an innovative use of cyberspace that was a better usage of the resource than the individual cyber-place owner is now able to put the resource to. In the deep linking cases, like *Washington Post v. TotalNews* or *Microsoft v. Ticketmaster*, the competitor was providing a more valuable consumer resource by providing access to the plaintiff's services. TotalNews aggregated the news services and provided the user with a one-stop place for viewing multiple news sites. MS Sidewalk service provided access to ticket booking based on geographical interest (i.e. shows on in Philadelphia), not on the less helpful concept of a single site where I can only book tickets. Some of the trespass to chattels cases are similar. Bidder's Edge's AuctionWatch site aggregated information from many auction sites, allowing the user to monitor multiple auctions.

This is not to say that every use which the courts have ruled against is a better use of the resource than the use which the plaintiff asserted. It is hard to justify spam under any conditions. Nonetheless, a significant number of cases actually demonstrate anticommons effects, since the post-ruling use of the resource

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545 Heller, *Three Faces*, *supra* note ___ at 423 ("I developed "anticommons" property ... because I walked down a Moscow street and noticed an anomaly that the standard [account of property] ... could not explain.")

546 Heller & Eisenberg, *supra* note ___ at 700-1; Heller, Three Faces, supra note ___ at 424.

seems to be less efficient than the pre-ruling use. And, as with gene fragments, we will never know what innovative uses of the resource might be possible, because the anticommons not only blocks the use, it blocks the recognition that better uses are possible.

All of the above points to the gradual emergence of the digital anticommons. It is happening slowly, and so we might be tempted to wait, to see what eventuates, before making any broad policy reforms. This is a mistake. Once anticommons property is manufactured, it gets locked in its sub-optimal use pattern. "Once anticommons property is created, markets or governments may have difficulty in assembling rights into usable bundles. After initial entitlements are set, institutions and interests coalesce around them, with the result that the path to private property may be blocked and scarce resources may be wasted."[547] In a world of perfect information, perfectly rational actors, and zero transaction costs, it would of course be simple to re-assemble the interests. But in the real world with ordinary transaction costs, irrational actors, and strategic behavior, anticommons property is characterized by the difficulty, if not outright impossibility, of rebundling.[548] Anticommons property becomes stuck in its low value use, wasting resources, with no prospect of reassembling into higher value use.[549]

Since it is so difficult to put the genie back in the bottle, I suggest that we need to address the anticommons before it emerges completely. In the final section that follows therefore, I present some arguments as to how we can confront the problem before the anticommons flowers.

C. Restoring the Commons

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547 Heller, *Anticommons*, *supra* note ___ at 659

548 Heller, *Anticommons*, *supra* note ___ at 625-6, 659; Heller, *Three Faces*, *supra* note ___ at 424 ("Once an anticommons emerges, collecting rights into usable private property may prove to be brutal and slow.")

549 Heller, *Anticommons*, *supra* note ___ at 626 ("When markets fail to rearrange initial endowments, resources can become stuck in low-value uses at either end of the property rights spectrum.")

If we accept the CYBERSPACE AS PLACE conceptual metaphor has lead to a property-based regulatory environment that is socially undesirable, then the next question is surely what we might do about this. There are two obvious ways to address the emergence of the anticommons online. The first is to challenge the underlying CYBERSPACE AS PLACE metaphor which, I have argued, is the fundamental reason why the Cyberspace Enclosure Movement has occurred. This turns out to be more difficult than first imagined: for the reasons advanced in the following section, it is tricky to switch metaphors.

The second approach is to challenge the Cyberspace Enclosure Movement head on. This approach which is slightly easier, but it remains unclear whether it has any greater chance of success.

1. Switching Metaphors

> "[T]he best way to determine the rights and duties of participants in electronic networking communities is not to pick a particular metaphor to be our "map," but rather, to apply basic principles of fairness and justice and to use the existing "legal metaphors" only for what they are worth as illuminators of a principled discussion."[550]

The most obvious answer, to the problem in front of us, is to argue forcefully against the CYBERSPACE AS PLACE metaphor, and even to suggest that we supplant the metaphor with another one which leads to more palatable public policy results. Or, we might agree with the above quotation, and suggest that we abandon metaphors altogether.

Various metaphors have been adopted in the cyberspace regulation literature. When discussing cryptography the discussion often involved locks and keys.[551] When examining privacy regulation in a networked database environment,

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550 David R. Johnson & Kevin A. Marks, *Mapping Electronic Data Communications onto Existing Legal Metaphors: Should we Let our Conscience (and our Contracts) be our Guide?,* 38 VILL. L. REV. 487 (1993).

551 A. Michael Froomkin, *The Metaphor is the Key: Cryptography, the Clipper Chip, and the Constitution*, 143 U.PA.L.REV. 709 (1995); M. Ethan Katsh, *Software Worlds and the First Amendment: Virtual Doorkeepers in Cyberspace*, 1996 U.CHI.LEGAL F. 335.

scholars focusing on state control of personally identifying information invoked Orwell's Big Brother.[552] Others suggested that multifarious private control of personal information means that analogies to "Little Brothers"[553] or Kafkaesque powerlessness were closer.[554] Others have traced out various other metaphors,

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552 *See e.g.* Charles N. Faerber, *Book Versus Byte: The Prospects and Desirability of a Paperless Society*, 17 J. MARSHALL J. COMPUTER & INFO. L. 797, 798 (1999) ("Many are terrified of an Orwellian linkage of databases allowing any individual to leave home without a wallet or purse but with a retinal pattern or other biometric identifier and then to perform any conceivable financial or documentary transaction."); Bryan S. Schultz, *Electronic Money, Internet Commerce, and the Right to Financial Privacy: A Call for New Federal Guidelines*, 67 U. CIN. L. REV. 779, 797 (1999) ("As technology propels America toward a cashless marketplace where financial transactions are conducted with the aid of computer record-keeping, society inches closer to fulfilling George Orwell's startling vision of a nation where 'Big Brother' monitors the who, what, where, when, and how of every individual's life."); Alan F. Westin, *Privacy in the Workplace: How Well Does American Law Reflect American Values*, 72 CHI.-KENT L. REV. 271, 273 (1996) (suggesting that Americans would view government data protection boards to regulate private sector databases as "calling on 'Big Brother' to protect citizens from 'Big Brother'."); Wendy Wuchek, *Conspiracy Theory: Big Brother Enters the Brave New World of Health Care Reform*, 3 DEPAUL J. HEALTH CARE L. 293, 303 (2000). The same metaphor is found in caselaw also. *See e.g.,* White v. California, 95 Cal. Rptr. 175, 181 (Cal. Ct. App. 1971) (1971) (Friedman, J., concurring in part and dissenting in part). ("Our nation's current social developments harbor insidious evolutionary forces which propel us toward a collective, Orwellian society. . . . Government agencies . . . have acquired miles and acres of files, enclosing revelations of the personal affairs and conditions of millions of private individuals. Credit agencies and other business enterprises assemble similar collections."). Similar arguments have been presented in Fourth Amendment and related jurisprudence. *See, e.g.,* Florida v. Riley, 488 U.S. 445, 466 (1989) (Brennan, J., dissenting) (adopting Orwell's Nineteen Eighty-Four to criticize the majority holding that viewing the defendant's greenhouse from a low-flying helicopter was not a search); United States v. Kyllo, 190 F.3d 1041, 1050 (9th Cir. 1999) rev'd, 121 S. Ct. 2038 (2001) (Noonan, J., dissenting) ("The first reaction when one hears of the Agema 210 [thermal imaging device used to detect heat emissions from the home] is to think of George Orwell's 1984. Although the dread date has passed, no one wants to live in a world of Orwellian surveillance."); Lorenzana v. Superior Court, 511 P.2d 33, 41 (Cal. 1973) (en banc) ("Surely our state and federal Constitutions and the cases interpreting them foreclose a regression into an Orwellian society..."); United States v. Falls, 34 F.3d 674, 680 (8th Cir. 1994) ("It is clear that silent video surveillance, like the interception of wire, oral, or electronic communications under Title I, results in a very serious, some say Orwellian, invasion of privacy.").

553 Paul M. Schwartz, *Privacy and Democracy in Cyberspace*, 52 VAND. L. REV. 1609, 1657 n.294 (1999). (there are now many "Big and Little Brothers" collecting personal data and "information technology has greatly encouraged the sharing of personal data between government and business."); REG WHITAKER, THE END OF PRIVACY: HOW TOTAL SURVEILLANCE IS BECOMING A REALITY 160-75 (1999).

554 Daniel J. Solove, *Privacy and Power: Computer Databases and Metaphors for Information Privacy*, 53 STAN.L.REV. 1393, 1413-1422 (hereafter Solove, *Privacy*).

including the information superhighway,[555] the frontier[556] or the Wild West.[557] This would seem to lead to the conclusion that almost any metaphor is possible:

> Since the inception of networked data communications systems, commentators have attempted to analyze the rights and duties of participants in these systems by mapping the systems against existing relationships in order to try to pick the "right" metaphor. These attempts, however, presuppose that there is some "best fit," some metaphor that will accurately characterize all the activities involved in these systems. In fact, the most significant attribute of "Cyberspace" is its malleability, the ability to change to fit a variety of metaphors. [558]

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555 Lemley, *Romantic Authorship*, *supra* note _____.

556 Loftus E. Becker, Jr., *The Liability of Computer Bulletin Board Operators for Defamation Posted By Others*, 22 CONN.L.REV. 203, 205 (1989) ("[The] legal issues surrounding computer bulletin boards comprise a land with no maps and few native guides."); Mitchell Kapor and John Perry Barlow, Across the Electronic Frontier (July 10, 1990) <http://www.eff.org/pub/Misc/Publications/Mitch Kapor/electronic frontier.eff>; David R. Johnson, *Barbed Wire Fences in Cyberspace: The Threat Posed by Calls for Ownership of Transactional Information* (Apr. 4, 1994) <http://www.eff.org/pub/Intellectual property/cyber barbwire johnson.article>; John Perry Barlow, Jack In, Young Pioneer! (Aug. 11, 1994) <http://www.eff.org/pub/Infrastructure/virtual frontier barlow eff.article>; U.S. Dep't of Justice, The Electronic Frontier (2000).

557 John Makulowich, Wild West of the Information Age, *Washington Technology* (March 22, 1999) <http://www.wtonline.com/vol13n024/briefs/433-1.html> (quoting remarks of Attorney General Janet Reno, "we cannot allow cyberspace to become the Wild West of the information age"); Interpol Urged to Stop Internet from Becoming "Wild West," *WJIN News* (Nov. 8, 1999) http://www.wjin.net/html/news/3019.htm> (quoting Toshinori Kanemoto, President of Interpol, "We should not make the Internet a Wild West"); Polly Sprenger, U.K. Cyberspace Is No "Wild West,' *The Standard* (Sept. 23, 1999) <http://www.thestandard.com/article/display/0,1151,6535,00.html> (quoting Patricia Hewitt, the United Kingdom's Minister for e-commerce, "we don't accept that cyberspace is some Wild West frontier where law enforcement and the sheriff should keep out"); JEFF GOODELL, THE CYBERTHIEF AND THE SAMURAI xvi (1996); Charles Doyle, Wanted - Cyber-Sheriff To Tame New Wild West, The Guardian (March 29, 1999) <http://www. infowar.com/law/99/law033199bj.shtml> (printed March 3, 2000); Tyler Hamilton, The Identity Thieves - Losing Face, *Toronto Globe and Mail* (June 5, 1999) http://www.infowar.com/class 1/99/class 1050699a j.shtml ("the United States in particular has become a Wild West for mischievous mouseslingers."); Doug Brown, Bulked-Up FTC: Let's Get Busy, *Interactive Week* (Feb. 18, 2000) http://www.zdnet.com/filters/printerfriendly/0,6061,2440841-35,00.html (. "Like the gunslinging sheriffs of old who introduced order to the West"). On the use of the metaphor within the legal discourse, see generally Jonathan J. Rusch, *Cyberspace and the "Devil's Hatband"*, *24* SEATTLE UNIV. L. REV. 577 at 578-9.

558 David R. Johnson & Kevin A. Marks, *Mapping Electronic Data Communications onto Existing Legal Metaphors: Should we Let our Conscience (and our Contracts) be our Guide?* 38 VILL. L. REV. 487 (1993), footnotes deleted.

It would seem, then, that we could just supplant the CYBERSPACE AS PLACE metaphor with any other one that leads to the more desirable outcome. Or we could, as the initial quotation in this section suggests, abandon metaphors altogether and decide according to some other principle such as "fairness".

As seductive as these ideas might appear, they are just not sustainable. First, we need to recall the distinction between cognitive conceptual metaphors and the linguistic reflections of them.[559] If we look at many of the metaphors which might stand as alternatives we find that they are linguistic metaphors that reflect an underlying physical, space-based conceptual metaphor. References to door-keepers, keys, maps, superhighways, frontiers, and the wild west, all assume some sort of abstract physical space that may be navigated. This observation is at the core of the many linguistic examples explained above—exploring the net, navigating sites—[560] as well as the legal examples of trespassing, establishing public forums, and so on.[561] The cognitive metaphor of CYBERSPACE AS PLACE is the central mechanism by which we understand this abstract idea of the Internet in all its various forms. We conceive of our online transactions and relationships as occurring within a space.

As a result, the other linguistic metaphors which have been suggested, are not going to help us. They are nothing more than reflections of the deeper cognitive metaphor that is at the heart of much of the lay and legal understanding of cyberspace. By adopting these other linguistic metaphors, we are really just applying the same cognitive metaphor in a different context.

Alternatively, we might try to change the underlying cognitive metaphor. Unfortunately, this is a lot easier said than done. Lakoff's work demonstrates that we cannot help but conceive of the world in physical terms.[562] Unless we can come up with some cognitive metaphor that is physical, no-one will adopt it. And it is extremely difficult, if not impossible, to think of a physical metaphor for cyberspace that does not involve the spatial characteristics which, I have suggested, has lead us to the Cyberspace Enclosure Movement.

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559 Infra Part II.A. and II.B.

560 Infra Part I.B.

561 Infra Part III.B. - III.E

562 Supra Part II.A. – C.

As a result, attempts to supplant the CYBERSPACE AS PLACE metaphor are, I think, doomed to failure. Which is not to say that we cannot confront the Cyberspace Enclosure Movement; it is just to say that the way to confront the movement is not by changing the metaphor.

2. Rethinking the Implications

If it were possible, the main benefit of switching metaphors is the conceptual elegance of changing one assumption and thereby altering the outcome of the entire process. Given that I do not think this is possible, the alternative route is, unfortunately, not conceptually elegant. In essence, it is the simple, and oft-used mechanism, of drawing attention to the policy implications of decisions making up the Cyberspace Enclosure Movement, and leading to the anticommons.

The latter part of this Article has been devoted to drawing attention to the public policy concerns that we might have about the Cyberspace Enclosure Movement. Other policy arguments are relevant here. For example, Carol Rose, Jerome Reichman, James Boyle, and others, make an extremely strong case to treat intangible property differently from tangible property. They note that intangible property does not suffer from the same rivalrous use and excludability problems that tangible property does, nor is it subject to the tragedy of the commons.[563] As a result, with the sort of intangible property of

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[563] Carol M. Rose, *Romans, Roads, And Romantic Creators: Traditions of Public Property in The Information Age*, at http://www.law.duke.edu/pd/papers/rose.pdf 2 (visited April 3, 2002) ("It is widely thought that tangible matters entail two forceful Utilitarian arguments in support of exclusive property. The first is that exclusive property rights prevent wasteful overuse of resources and stave off the familiar Tragedy of the Commons that can follow open access. The second is that exclusive property encourages optimal investment in resource development, since the gains and losses from that investment come back to the owner. But in Intellectual Space, the first of these familiar arguments falls away, since there is no physical resource to be ruined by overuse: books and tapes and words may be copied, inventions may be imitated, pictures may be reproduced, all without the slightest damage to the original. Hence the Utilitarian case for exclusive rights in Intellectual Space rests entirely on the second argument, that the grant of exclusive property encourages appropriate investment in creativity.")

cyberspace, we can throw out our normal assumptions about private ownership of the resources, and recognize that a commons system might be the most efficient use of the resource.[564]

This discussion has broken out previously when commentators considered cyberspace.[565] Though the discussion was prompted by the emergence of the Internet, especially the idea that the Internet was one big copy-shop, in fact the argument is over the fairly prosaic issue of the appropriate bounds of intellectual property protection: "The modern defenders of an open Internet take the position that the free exchange of ideas is a kind of comedy of the commons, where total creativity is enhanced by open access and interaction among all entrants' ideas. Hence the net, they argue, is an inappropriate vehicle for property's exclusive rights; instead, it is ... an open access regime."[566] The debate has now moved to the Supreme Court,[567] and will no doubt be a feature of the next decade.

Whatever the outcome of this debate about intellectual property, it does not answer the question of whether we should be granting the sort of quasi-property rights in cyberspace, which are described above. Here the problem is easier to resolve, than the difficult questions that arise in copyright or patent, which have always appeared to be property interests. Here we are simply talking about

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564 See ROBERT C. ELLICKSON ET AL., PERSPECTIVES ON PROPERTY LAW, xii (2d ed. 1995) (examples of common property); Robert C. Ellickson, *Property in Land*, 102 YALE L.J. 1315, 1394-95 (1993) (noting that the majority of Americans live in limited "commons" ie multi-person households); Carol M. Rose, *Property as the Keystone Right?*, 71 NOTRE DAME L. REV. 329, 351 (1996) (identifying a number of different types of limited common property systems).

565 See the summary in Carol M. Rose, *The Several Futures of Property: Of Cyberspace and Folk Tales, Emission Trades and Ecosystems*, 83 MINN. L. REV. 129, 150-62 (1998) (Hereinafter Rose, *Futures*).

566 Rose, *Futures supra* note ___ at 150-4 (citation omitted). See also James Boyle, *A Politics of Intellectual Property: Environmentalism for the Net?*, 47 DUKE L.J. 87, 133-4 (1997); Marci A. Hamilton, *The TRIPs Agreement: Imperialistic, Outdated and Overprotective*, 29 VAND. J. TRANSNAT'L L. 613, 625 n.30 (1996) (explaining hacker mantra of "information wants to be free"); Peter Jaszi, *Caught in the Net of Copyright*, 75 OR. L. REV. 299, 305-07 (1996) (arguing that the proposals of the US Government's Magaziner Report on regulation of the net provide none of the traditional protections for open access); Johnson & Post, *Borders supra* note ___ at 1370-78; Jessica Litman, *Revising Copyright Law for the Information Age*, 75 OR. L. REV. 19, 39-40 (1996) (noting Internet norms that run contrary to formal copyright law).

567 Eldred v. Reno, 239 F.3d 372 (D.C. Cir. 2001), aff'g. 74 F. Supp.2d 1 (D.D.C 1999), *cert. granted,* No. 01-618, U.S. Sup. Ct. (2002).

whether the best interests of society is served by courts and legislators granting a kind of quasi-property interest to those who provide online resources. Unlike intellectual property, there is no strong moral claim that authors should be entitled to the fruits of their labors, else we risk free-riding, a reduction in innovation, and so forth. What we are dealing with is a situation where these proprietors have taken advantage of the network externalities that define the Net, and then have asserted a private property right that cuts directly against it. As a matter of simple even-handedness, then, the argument in favor of the Cyberspace Enclosure Movement falls away.

V. CONCLUSION

Joseph Singer, the property theorist, explains that property is one of the strongest ordering systems we have in society.[568] The kind of property we have determines much of the society we will have; therefore the social life we want should determine the type of property we admit. In the real world, this means we choose to enact and enforce public accommodations statutes because we cannot condone racial segregation, or we abolish the fee tail because we can no longer stomach the disinheritance of women.[569] "[P]roperty systems form the overall social context in which individuals live. They describe the limits of allowable social relations and channel interaction into certain patterns."[570]

In the online world, these property interests are even more plastic than those in the real world. We therefore have the opportunity to determine first what sort of online environment we want, and then (and only then) choose what sort of legal regime should apply to it. The Cyberspace Enclosure Movement threatens to reverse this process, by forcing our real world property assumptions on the online environment. However, as described above, these assumptions are unnecessary, harmful, and wrong.

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568 JOSEPH WILLIAM SINGER, ENTITLEMENT: THE PARADOXES OF PROPERTY, 146, (2000)

569 *Id.*

570 *Id.*

In 1992, the Internet was opened up for commercial exploitation.[571] Relying on the public character of the Net, and the vast public commons that was created before they ever arrived, commercial operators have grown exceedingly fat. They now have successfully exploited the CYBERSPACE AS PLACE metaphor, and convinced judges that it is appropriate to carve out remarkable new property rights online. By tiny, almost imperceptible steps, they are enclosing cyberspace. They have mounted a campaign that has eroded the public commons that the Net has been, and they threaten to create a genuine digital anticommons.

We have been lucky. We have witnessed an unprecedented decade of innovation on the Net. This innovation has flourished in part because of the dot.com bubble, but more importantly because of the commons that the Net has provided, and the opportunity that this presents. The Cyberspace Enclosure Movement, dependent on the CYBERSPACE AS PLACE metaphor, has not yet closed this off completely. However, if the current approach is not challenged, then little stands between us and the digital anticommons. The intractable characteristic of anticommons will emerge: low value uses beat out high value ones, and it is almost impossible to change state. We will not be able to re-bundle the various commons interests that we once shared. The opportunity will be lost forever.

We may already be past the point where we can do anything about this. I hope we are still a little way off. But unless we do something about it, as we all come to stake out our little claim in cyberspace, the commons which is cyberspace will be destroyed.

And *this* would be the real tragedy.

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571 Scientific and Advanced-Technology Act of 1992, Pub. L. No. 102-476, § 4, 106 Stat. 2297, 2300.