AGAINST CYBERPROPERTY

Michael A. Carrier[†] *& Greg Lastowka*[‡‡]

TABLE OF CONTENTS

---

† Professor, Rutgers University School of Law-Camden.
‡‡ Associate Professor, Rutgers University School of Law-Camden.

I. INTRODUCTION

Cyberproperty. Repeated enough, it may seem natural. Even inevitable. It is not.

Cyberproperty describes a legal regime in which owners of network-connected chattels have absolute rights to exclude others from electronic interaction with their equipment. The concept of cyberproperty has been applied to prevent electronic "trespasses" to web and e-mail servers. Property, however, is not the appropriate model for such settings.

Property instead is the hook that drags cyberspace into an abyss of overprotection and overreaching. Even worse, the version of property imported into cyberproperty is absolute and limitless—in short, a caricature of its true self. While scholars have examined one element of this link in debating whether the concept of "cyberspace" is an appropriate metaphor for websites and e-mail servers, they have neglected to analyze the property foundations of cyberproperty.

In this Article, we uncover these links, at last addressing cyberproperty through the lens of property law: Why do we have property? Does it serve its intended purposes? What are its limits? What are its dangers? And how does each of these questions apply to cyberproperty?

In answering these questions, we find that none of the philosophical rationales for traditional property support the existence of cyberproperty. There is no tragedy of the commons, no need for incentives. There are no Lockean labor justifications. There are no Hegelian personhood rationalizations. Just as ominous, we conclude that the concept of cyberproperty is dangerous, unlimited, and unnecessary.

Part II of this Article sketches an overview of cyberproperty. It discusses scholars' varying perspectives on cyberspace as the relevant analogy for the internet and explains that courts have been less hesitant in facilitating cyberproperty's expansion. Because cyberproperty is based on property, Part III turns to traditional philosophical justifications of property law. It explores property's rationales, successes, dangers, and limits, and concludes that property is moderately successful in achieving its goals and that numerous limits cabin its dangers.

Part IV then explains why none of property's three primary justifications—Locke's labor theory, Hegel's personhood rationale, and utilitarianism—support cyberproperty. It also reveals the concept's significant dangers and lack of limits. Finally, Part V envisions a world without cyberproperty. It finds that statutory alternatives supplant the need for the concept, notably legislation regarding electronic invasion, spam, copyright, and (potential) database protection. It also shows that such regimes are

more narrowly targeted and less likely to quash competition and speech than cyberproperty.

II. CYBERPROPERTY

Court cases and legal scholars both played a role in the emergence of cyberproperty. Courts first provided new exclusionary powers for the owners of digital equipment. Scholars then advocated strong ownership rights in intangible internet resources, such as the processing power of web servers. As cyberproperty doctrine has developed, the two trends have built on each other: courts that discover new cyberproperty rights are applauded by scholars who use the decisions to advocate even greater expansions of the concept.

A. The Scholarly Debate

Scholars have used the term cyberproperty to signify "a right to exclude others from access to network-connected resources."[1] The concept naturally builds on conceptions of property. Although scholars have debated the appropriateness of notions of "cyberspace" in the regulation of the internet, they have neglected the foundations of "property" that animate the development of cyberproperty. For example, they have ignored the important, albeit implicit, role that possession and exclusion play in cyberproperty. This role quickly becomes apparent by reviewing the positions of the two camps that comprise the cyberproperty literature: the "proponents" and the "opponents."[2]

Proponents mix a Chicago School-type faith in property, privatization, and markets with metaphorical claims about the similarities between real property and cyberproperty. The Clinton Administration fired one of the first salvos along these lines in its 1995 "White Paper."[3] This document advocated the extension of stronger intellectual property rights to cyber-

1. R. Polk Wagner, *On Software Regulation*, 78 S. CAL. L. REV. 457, 496 (2005). *See also* Patricia L. Bellia, *Defending Cyberproperty*, 79 N.Y.U. L. REV. 2164, 2169 (2004) (defining the term to embrace a network resource owner's right to "set the terms of access to the resource").

2. *See, e.g.*, Carol M. Rose, *The Several Futures of Property: Of Cyberspace and Folk Tales, Emission Trades and Ecosystems*, 83 MINN. L. REV. 129, 146-50 (1998) (describing the cyberspace schools of "not enough property" and "too much property").

3. BRUCE A. LEHMAN & RONALD H. BROWN, U.S. PATENT AND TRADEMARK OFFICE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE (1995), *available at* http://www.uspto.gov/web/offices/com/doc/ipnii.

space and concluded that such protection was necessary to "provide[] the stimulus for creativity" to produce expressive works.[4]

Judge Frank Easterbrook was an early advocate of cyberproperty. In an address to legal scholars, he advocated the creation of new cyberspace-based "property rights, where now there are none . . . to make bargains possible."[5] Trotter Hardy similarly argued for the extension of real property trespass rules to cyberspace because of low transaction and boundary-monitoring costs.[6] And Richard Epstein contended that "the rules that govern ordinary space provide a good template to understand what is at stake in cyberspace."[7] Cybertrespass rules, Epstein continued, are justified because "unauthorized entry has long been regarded as a per se violation under ordinary trespass principles."[8]

Demonstrating property's possession and exclusion features, proponents argue that the owner of network-connected digital computing equipment should have an absolute right to prevent other network users from making electronic contact with the chattel.[9] As discussed further below, the scope of this right generally exceeds the right to exclude found in traditional property laws.[10]

Cyberproperty's opponents, though they have not applied property's justifications to cyberproperty, attack the adoption of a spatial metaphor for the internet. Mark Lemley criticizes the metaphor of "cyberspace as place" by revealing differences between the physical and online world, such as the multiple presence of data and the public good nature of internet content.[11] Dan Hunter claims that the metaphor "is leading us to a tragedy of the digital anticommons . . . [with] millions of splintered rights in cyberspace . . . destroying the commons-like character of the Internet."[12] And Julie Cohen contends that the cyberspace debate has been

4. *Id.* at 14.

5. Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHI. LEGAL F. 207, 212 (1996).

6. Trotter Hardy, *Property (and Copyright) in Cyberspace*, 1996 U. CHI. LEGAL F. 217, 236-58 (1996).

7. Richard A. Epstein, *Intellectual Property: Old Boundaries and New Frontiers*, 76 IND. L.J. 803, 818 (2001).

8. Richard A. Epstein, *Intel v. Hamidi: The Role of Self-Help in Cyberspace?*, 1 J.L. ECON. & POL'Y 147, 157 (2005).

9. *See, e.g.*, Bellia, *supra* note 1, at 2169.

10. *See infra* Part IV.

11. Mark A. Lemley, *Place and Cyberspace*, 91 CALIF. L. REV. 521, 525-26 (2003).

12. Dan Hunter, *Cyberspace as Place and the Tragedy of the Digital Anticommons*, 91 CALIF. L. REV. 439, 442-44 (2003).

overly simplistic, often failing to consider postmodernist theories that treat space and place as flexible social constructions.[13]

Proponents and opponents also disagree about the applicability in cyberspace of "trespass to chattels" (TTC), one of the key doctrinal tenets of cyberproperty. The Restatement (Second) of Torts defines TTC as the intentional dispossession of, use of, or interference with another's tangible personal property.[14] A TTC claim requires a showing of interference that is "harmful to the possessor's . . . interest in the physical condition, quality, or value of the chattel" or deprivation of "use of the chattel for a substantial time."[15] A plaintiff alleging a claim of trespass to land, in contrast, need not show harm.[16]

Proponents of cyberproperty argue that TTC rules should "carry over to cyberspace without missing a beat."[17] The damages to plaintiffs in cyberproperty lawsuits are, allegedly, not nominal because plaintiffs have filed suit. Such action makes sense only if "the expected recovery of suit" exceeds litigation costs.[18]

But the losses feared by plaintiffs in such cases may have no relation to the chattel. Proponents would allow plaintiffs to claim unrelated damages, such as the loss of goodwill and employee distraction, that are a consequence of the claimed cybertrespass.[19] Even a plaintiff's inability to estimate damages is claimed to "offer[] yet an additional reason to award injunctive relief."[20]

Opponents, in contrast, lament the courts' "mixing . . . the requirements of trespass to real property and trespass to chattels, mutating them into a new tort that bears only some surface resemblance to traditional causes of action."[21] They note that in many cases, owners of equipment

13. Julie E. Cohen, *Cyberspace as/and Space*, 107 COLUM. L. REV. 210 (2007). For another critique, see Maureen A. O'Rourke, *Property Rights and Competition on the Internet: In Search of an Appropriate Analogy*, 16 BERKELEY TECH. L. J. 561, 590-91 (2001) (contending that cyberproperty raises copyright preemption issues).

14. RESTATEMENT (SECOND) OF TORTS §§ 217, 218 (1965); *see generally* Dan L. Burk, *The Trouble with Trespass*, 4 J. SMALL & EMERGING BUS. L. 27, 28 (2000).

15. RESTATEMENT (SECOND) OF TORTS § 218 cmt. e; W. PAGE KEETON ET AL., PROSSER & KEETON ON TORTS § 14, at 85-86 (5th ed. 1984).

16. W. PAGE KEETON ET AL., *supra* note 15, § 14, at 87.

17. Richard A. Epstein, *Cybertrespass*, 70 U. CHI. L. REV. 73, 81 (2003).

18. *Id.*

19. *Id.* at 81-82.

20. *Id.* at 82.

21. O'Rourke, *supra* note 13, at 595-96. *See also* Burk, *supra* note 14, at 33 (criticizing courts' "revers[al of] several hundred years of legal evolution, collapsing the separate doctrines of trespass to land and trespass to chattels . . . into their single common law progenitor, the action for trespass").

"were not . . . dispossessed of its use by the passage of electrons through the equipment in exactly the way [it] was designed to carry them."[22] And they criticize courts' shifting notions of the precise identity of the chattel that has been trespassed against, which has included not only the physical computer, but also its bandwidth, capacity, processing power, and network, many of which are not "actually chattels at all."[23]

B. The Cases

The robust debate about cyberproperty's expansion found in the literature is seldom seen in judicial decisions. As this section will show, courts have expanded cyberproperty to cover an increasingly expansive array of activities involving computers.

Courts initially gave life to cyberproperty in response to the new threats posed to digital information networks.[24] In the first case relying on the concept, *Thrifty-Tel, Inc. v. Bezenek*,[25] two young hackers attempted (unsuccessfully) to obtain free long distance service by accessing a telephone company's servers without authorization.[26] The plaintiff, a small telephone company, sued the boys' parents, claiming that the hacking attempt constituted civil conversion (misappropriation) of the value of its switching network.[27] The trial court agreed and awarded roughly $50,000 in damages and attorney's fees.[28]

The California Court of Appeal, affirming on different grounds, concluded that, under state law, a plaintiff could not succeed on a conversion claim for intangible property.[29] Instead, the court decided the case according to the TTC doctrine. It acknowledged the injury requirement and found such harm where the switching network was so overburdened that it could not be used by subscribers.[30] In a puzzling footnote, however, the court cited property cases distinguishing between trespass and nuisance and concluded that "the electronic signals generated by the . . . boys' activities were sufficiently tangible to support a trespass cause of action."[31]

---

22. *Id.* at 34.
23. Hunter, *supra* note 12, at 486.
24. *E.g.*, Intel Corp. v. Hamidi, 94 Cal. App. 4th 325, 329 (Ct. App. 2001) (justifying cyberproperty because "[t]he common law adapts to human endeavor").
25. 46 Cal. App. 4th 1559 (Ct. App. 1996).
26. *Id.* at 1564.
27. *Id.*
28. *Id.* at 1565.
29. *Id.*
30. *Id.* at 1564.
31. *Id.* at 1566 n.6.

Though just a footnote, the court's statement opened the floodgates to judicial adoption of cyberproperty. Communications service providers began filing cases against "spammers" who had sent massive numbers of unsolicited e-mail messages to private parties, claiming that such contact disrupted their business. And courts seized on the *Thrifty-Tel* footnote to punish such activity without even considering whether plaintiffs alleged damage to the chattel.[32]

The court in *CompuServe v. Cyber Promotions*,[33] for example, found the requisite physical tangibility for TTC in "[e]lectronic signals . . . sent by computer."[34] Because spam e-mail "demand[s] the disk space and drain[s] the processing power of . . . computer equipment," it prevents the resources from being available for CompuServe subscribers.[35] "Even though [the computer system was] not physically damaged by defendants' conduct," the court concluded, "the value of that equipment to CompuServe is diminished."[36]

Courts after *CompuServe* presumed that spamming practices caused a type of economic "damage" that was actionable pursuant to TTC and gave e-mail server owners absolute rights to block unauthorized electronic contact.[37] Soon enough, courts expanded the right of electronic inviolability to other categories of servers in justifying injunctions that prohibited access to information posted on websites.

In *eBay v. Bidder's Edge*,[38] for example, the online auction site eBay sued Bidder's Edge, an "auction aggregator" that captured eBay's auction data and provided it to the public.[39] eBay claimed that, even though the defendant's queries did not significantly affect the ability of its web servers to operate, the queries constituted a TTC because eBay had not authorized Bidder's Edge to access the information.[40] The court issued an injunc-

32. *E.g.*, Hotmail Corp. v. Van$ Money Pie Inc., 47 U.S.P.Q.2d 1020, 1025 (N.D. Cal. 1998); CompuServe Inc. v. Cyber Promotions, Inc., 962 F. Supp. 1015, 1021-22 (S.D. Ohio 1997). For other cases allowing a trespass to chattels theory without damage to a physical chattel, see Am. Online, Inc. v. Nat'l Health Care Disc., Inc., 121 F. Supp. 2d 1255, 1279-80 (N.D. Iowa 2000); Am. Online, Inc. v. LCGM, Inc., 46 F. Supp. 2d 444, 451-52 (E.D. Va. 1998); Am. Online, Inc. v. IMS, 24 F. Supp. 2d 548, 550-52 (E.D. Va. 1998); Cyber Promotions, Inc. v. Am. Online, Inc., 948 F. Supp. 436, 447 (E.D. Pa. 1996).

33. 962 F. Supp. 1015, 1021, 1022 (S.D. Ohio 1997).

34. *Id.* at 1021, 1022.

35. *Id.* at 1022.

36. *Id.*

37. *See* Bellia, *supra* note 1, at 2178-81.

38. 100 F. Supp. 2d 1058 (N.D. Cal. 2000).

39. *Id.* at 1061-62.

40. *Id.* at 1071.

tion prohibiting Bidder's Edge from accessing eBay's webpages.[41] One of the court's primary concerns was the potential impairment of eBay's computers if other companies began to aggregate eBay's auction data.[42]

Cyberproperty reached its apex in *Oyster Software, Inc. v. Forms Processing, Inc.*[43] The plaintiff in that case alleged a TTC claim merely because the defendant had accessed its website and copied information from the site without authorization. Even though the plaintiff failed to allege any damage to its computer equipment, the court, relying on *eBay*, denied summary judgment for the defendant because it had engaged in unauthorized use of plaintiff's computer.[44]

The march toward absolute cyberproperty rights slowed with the California Supreme Court's decision in *Intel v. Hamidi*.[45] In that case, the defendant, Ken Hamidi, was a former employee of Intel who co-founded an organization called FACE-Intel ("Former and Current Employees of Intel"), which criticized the company's employment practices.[46] Between 1996 and 1998, Hamidi, on behalf of the organization, sent six e-mails critical of the company to more than 30,000 Intel employees.[47]

Intel sued Hamidi, claiming that, even though its chattels were not damaged, it had suffered harm from lost employee productivity and the time it had spent trying to block his messages.[48] The district court, in an action affirmed by the appellate court, issued a permanent injunction that prohibited Hamidi from "sending unsolicited e-mail to addresses on Intel's computer systems."[49]

In a 4-3 decision, the California Supreme Court reversed. The majority concluded that actual damage or impairment to the chattel was a requirement for a TTC claim.[50] The court, however, refused to overrule the *CompuServe* line of cases, explaining that the spamming activities in those cases "overburdened the ISP's own computers and made the entire computer system harder to use for recipients."[51]

---

41. *Id.* at 1073.
42. *Id.* at 1066.
43. No. C-00-0724 JCS, 2001 WL 1736382 (N.D. Cal. Dec. 6, 2001).
44. *Id.* at *13.
45. 30 Cal. 4th 1342, 1347 (Cal. 2003).
46. *Id.* at 1348.
47. *Id.*
48. *Id.*
49. *Id.* at 1350.
50. *Id.* at 1347.
51. *Id.*

Even though *Hamidi* slowed the march toward an unencumbered cyberproperty regime, the court singled out only *Oyster Software* as inconsistent with California doctrine.[52] The other underpinnings of the doctrine thus remain in place. To this day, courts utilize cyberproperty's expanded version of TTC as a powerful tool for web and e-mail server owners.[53] In fact, with its absolute rights and lack of limits, cyberproperty has now surpassed property in the scope and power of the rights it grants to owner-plaintiffs.

III. PROPERTY

The foundation of cyberproperty jurisprudence is the law of conventional property. Cyberproperty reflexively adopts property characteristics such as possession and exclusion. But to determine whether such linkage makes sense, we need to ask foundational questions: Why do we have property? Does it achieve its goals? What are its dangers? What are its limits? These questions are the focus of Part III, which examines the three most important justifications for property: the labor theory, the personhood rationale, and utilitarianism.[54]

A. Purposes

1. The Labor Theory

The labor theory is commonly attributed to John Locke. Locke famously stated that "every man has a property in his own person" and thus is entitled to whatever he "removes out of the state [of] nature" and "mixe[s] his labour with."[55] But Locke restricted the application of the theory to contexts in which "there is enough, and as good left in common for others."[56] He also limited the laborer to "[a]s much as any one can make use of to any advantage of life before it spoils."[57]

---

52. *Id.* at 1357 n.5.

53. *See, e.g.*, Sotelo v. DirectRevenue, LLC, 384 F. Supp. 2d 1219 (N.D. Ill. 2005).

54. The three rationales implicate additional approaches such as natural rights (labor) and liberty, identity, and privacy (personhood). *See* JOHN LOCKE, TWO TREATISES OF GOVERNMENT ¶ 27 (Peter Laslett ed., 2d ed., Cambridge Univ. Press 1967) (1690) (proffering a natural rights explanation based on labor); F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CALIF. L. REV. 1, 44 (2004) (using personhood theory to link property and human rights); Carol M. Rose, *Left Brain, Right Brain and History in the New Law and Economics of Property*, 79 OR. L. REV. 479, 484 (2000) (noting the "powerful libertarian appeal" of property).

55. LOCKE, *supra* note 54, ¶ 27 (emphasis omitted).

56. *Id.*

57. *Id.*

Locke granted property protection only where "labor makes for the greatest part of the value of [the asset]."[58] He assumed that human intervention would constitute most of the item's value: "[I]f we will rightly estimate things as they come to our use, and cast up the several expenses about them—what in them is purely owing to nature, and what to labour—we shall find that in most of them ninety-nine hundredths are wholly to be put on the account of labour."[59]

2. The Personhood Theory

The personhood theory is generally traced to Georg Hegel. The centerpiece of Hegelian theory is the primacy of free will. For Hegel, the will and the world are engaged in a process of mutual interrelation and unfolding. In particular, the will has an effect on the world by forming, marking, and possessing things, thereby creating "property."[60] This process is inevitable, as "[a] person has as his substantive end the right of putting his will into any and every thing and thereby making it his . . . ."[61]

Margaret Radin and others have built upon Hegelian theory in articulating contemporary personhood justifications for property rights.[62] Radin has employed the personhood rationale to challenge law and economics theories that support a regime of "universal commodification."[63] She has explained that persons must differentiate themselves from their physical environment while also maintaining relationships with it.[64] The distinction between fungible and personal property is crucial, with the strength of the entitlement increasing as the object becomes more central to one's personhood.[65] Fungible objects are "wholly interchangeable with money,"[66] while homes and wedding rings may be so personal that "a government that must respect persons ought not to take [them]."[67]

---

58. JOHN LOCKE, TREATISE OF CIVIL GOVERNMENT AND A LETTER CONCERNING TOLERATION ¶ 42 (Charles L. Sherman ed., 1979) (1689).

59. *Id.* ¶ 40.

60. GEORG WILHELM FRIEDRICH HEGEL, PHILOSOPHY OF RIGHT ¶¶ 47-71 (T.M. Knox trans., Oxford Univ. Press 1967) (1821).

61. *Id.* ¶ 44.

62. *See, e.g.*, MARGARET JANE RADIN, CONTESTED COMMODITIES (1996); Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 330-351 (1988); George H. Taylor & Michael J. Madison, *Metaphor, Objects, and Commodities*, 54 CLEV. ST. L. REV. 141, 145-157 (2006).

63. RADIN, *supra* note 62, at 5.

64. Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957, 977 (1982).

65. *Id.* at 987.

66. *Id.*

67. *Id.* at 1005.

3. *Utilitarianism*

The third—and currently most important—justification for property is utilitarianism. Property law has long been viewed as serving two main utilitarian purposes: providing incentives for the development of land and materials, and preventing the depletion of finite resources.[68] Both rationales encourage socially productive behavior by ensuring that owners internalize the effects of their activity.

The first rationale involves providing incentives so that workers can appropriate the results of their labor.[69] The right to exclude helps to create such an incentive by ensuring that "free riders" cannot enjoy the fruits of laborers' work.[70] Property also creates incentives by identifying those who have claims to particular resources and ensuring that they can cultivate these resources.[71]

The second rationale, related to scarcity, has arisen in discussions of the "tragedy of the commons." Garrett Hardin told the story of a pasture open to all, upon which herdsmen let their cattle graze.[72] Herdsmen had an incentive to put as many cattle as possible on the commons because they were able to appropriate the entire gain from the cattle they added but suffered only a fraction of the loss from overgrazing. The herdsmen therefore added continually more cattle to the commons, leading to the "destination of ruin."[73]

Hardin's recounting of the tragedy of the commons naturally inspired a search for solutions, the most popular of which is privatization. Harold Demsetz provided the most famous exposition, explaining that rights to exclude create incentives for owners to efficiently utilize resources and to internalize many of the costs of communal ownership, such as transaction

---

68. Michael A. Carrier, *Cabining Intellectual Property Through a Property Paradigm*, 54 DUKE L.J. 1, 26 (2004).

69. RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 32 (6th ed. 2003); Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711, 711 (1986).

70. *E.g.*, POSNER, *supra* note 69, at 32.

71. CAROL M. ROSE, *Economic Claims and the Challenges of New Property*, *in* PROPERTY IN QUESTION 275, 276-77 (Caroline Humphrey & Katherine Verdery eds., 2004).

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

73. *Id.*

costs.[74] Others have emphasized the role of privatization in reducing enforcement and monitoring costs.[75]

B. Success?

Does the real-world institution of property support these theoretical frameworks? For starters, property law is moderately consistent with the labor and personhood theories. Private property rewards an owner's labor, though there are many inputs to property other than labor and laborers are often isolated from the objects they produce. Likewise, property strengthens owners' personal connection to their land in some, though not all, cases. For the most significant and easily measurable goal, utilitarianism, the evidence is mixed.[76] Property stands on more solid ground in providing incentives for development than in preventing resource depletion.

The story of property and development is visible all around us. The institution of private property, embedded as it is in American society (and as it has been from colonial times), has constituted the core of landownership and development in this country. Even though but-for causation is difficult to trace precisely, the right to exclude has accompanied the robust development of land. The right also has ameliorated the dangers of free riding and has offered a predictable foundation for society and the economy.[77]

The scarcity axis provides more empirical, albeit mixed, evidence of the effect of the right to exclude. Privatization has appeared to be successful in helping to prevent a tragedy of the commons in industries subject to overuse.[78] Many commons, however, are made up of resources to which

---

74. Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 356 (1967).

75. *E.g.*, Steven N.S. Cheung, *The Structure of a Contract and the Theory of a Non-Exclusive Resource*, 13 J.L. & ECON. 49, 52-53 (1970); Robert C. Ellickson, *Property in Land*, 102 YALE L.J. 1315, 1327 (1993).

76. The difficulty of measuring owners' labor and personhood interests precludes definitive assessments of property's success in fulfilling these goals.

77. For examples of studies supporting the importance of exclusionary rights, see Terry L. Anderson & P.J. Hill, *The Evolution of Property Rights: A Study of the American West*, 18 J.L. & ECON. 163, 165-78 (1975) (analyzing land, livestock, and water in the Great Plains); Ellickson, *supra* note 75, at 1335-41 (examining pioneer settlements in Jamestown, Plymouth, and Salt Lake City).

78. Evidence is provided by studies of a Maine lobster fishery, oyster industries in Maryland and Virginia, and a British Columbia halibut fishery. Richard J. Agnello & Lawrence P. Donnelley, *Property Rights and Efficiency in the Oyster Industry*, 18 J.L. & ECON. 521, 522 (1975) (oyster industry); R. Quentin Grafton et al., *Private Property and Economic Efficiency: A Study of a Common-Pool Resource*, 43 J.L. & ECON. 679, 709 (2000) (halibut fishery); James A. Wilson, *A Test of the Tragedy of the Commons*, *in*

the right to exclude cannot easily be applied. For example, it is difficult and prohibitively costly to demarcate air, water, and wild animal stocks clearly or to carve them into finite bundles.

Despite evidence that exclusion can solve potential commons tragedies, in many cases it is not necessary (at least to the extent posited by the traditional story). This lack of necessity comes in two forms. First, certain depletable commons (such as fisheries, groundwater, and the earth's atmosphere) are inherently prone to tragedy, making it difficult for exclusion or any other regime to prevent a tragic outcome.[79] Second, many commons problems have been solved under regimes in which legal rights of exclusion have not played the predominant role. For example, some small, close-knit communities have developed norms that help govern the use of scarce resources,[80] and others have developed internal rules to govern the management of resources held in common.[81]

In short, the labor, personhood, and utilitarian justifications provide moderate, but not complete, support for property law.

C. Dangers of and Limits to Property

Property holders often view the regime's exclusionary rights as absolute in nature.[82] A person's home is her castle. The right to exclude is sacrosanct and unquestionable. Such, at least, is the rhetoric of property. But a look beyond the rhetoric reveals that a far more nuanced scheme has emerged in practice. For while the rights to exclude, use, and transfer are central to property law, they are far from absolute. Rather, they are cabined by an array of limits that promote important public policies.

Many of the drawbacks of property's exclusionary rights have been avoided by the widespread use of limits. Eminent domain precludes landowners from holding out and preventing the government from using land it needs to effectuate certain public policies. Easements allow landlocked

---

MANAGING THE COMMONS, at 96, 96-97 (Garrett Hardin & John Baden eds., 1977) (lobster fishery).

79. Barton H. Thompson, Jr., *Tragically Difficult: The Obstacles to Governing the Commons*, 30 ENVTL L. 241, 247-62 (2000).

80. Robert Ellickson famously traced these rituals in the cattle industry in Shasta County, California, uncovering norms that held livestock owners responsible for their animals' actions and that trumped formal laws. ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES 52-64 (1991).

81. The leading scholar investigating such communities, Elinor Ostrom, offered examples that included the Alanya fishery, several Japanese villages, and Huerta irrigation institutions. ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 18-21, 61-82 (1990).

82. Carrier, *supra* note 68, at 10, n.13 (providing examples).

owners to access their land and connect to public roads. Courts refuse to enforce racial covenants and other covenants contrary to public policy. Zoning laws prevent egregiously incompatible uses of land. The numerous limits that courts and legislatures have imposed mollify some of the potential dangers of property rights.

These limits notwithstanding, several dangers still underlie property law. One danger involves distributional consequences. Privatizing property can generate and magnify inequalities in wealth between owners and non-owners. This inequality is significant and, in recent years, has appeared to be growing.[83]

A second danger of property rights is a concept called "the tragedy of the anticommons." Michael Heller defined the anticommons as "a property regime in which multiple owners hold effective rights of exclusion in a scarce resource,"[84] citing examples of Moscow storefronts, where the ability of multiple parties (such as owners, users, and regulators) to exercise exclusionary rights led to underuse of traditional stores and extensive use of metal kiosks in front of the stores.[85]

A third danger is that property systems can cause a significant divergence between individual and societal goals. For example, private property encourages a farmer to develop her land and use it in the most economically productive manner. But the most efficient individual use may not provide the ideal societal use. If the farmer maximized her crop yield through over-irrigation, chemical fertilizers, and pesticides, for example, downstream uses could be adversely and significantly affected. Just because each property owner "improves" her property in accord with her own best interest does not mean that society as a whole benefits.

Although property has had these effects, its limits have otherwise averted many other dangerous consequences. In fact, there are at least fifty limits to property rights.[86] The right to exclude, for example, is restricted by

---

83. *See, e.g.*, Elliott M. Abramson, *Ruskin's Insights for the Law: A Humanist's Intimations to Technique*, 43 U. PITT. L. REV. 403, 435 (1982); Florence Wagman Roisman, *Teaching Important Property Concepts: Teaching About Inequality, Race, and Property*, 46 ST. LOUIS L.J. 665, 665-66 & n.4 (2002).

84. Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621, 668 (1998).

85. *Id.* at 633-37; *see also id.* at 679-87 (discussing examples such as the poor performance of privatized state enterprises and the rebuilding of Japan after the 1994 Kobe earthquake).

86. Carrier, *supra* note 68, at 54-81.

Easements, which allow the use of others' land for various purposes,[87]

Imminent necessity, which privileges entry onto another's land to save lives or property or to avoid other serious harm,[88]

The *public trust* doctrine, which provides access rights over private property to reach beaches or public waters,[89] and

The law of *encroachments*, which prevents courts from issuing injunctions when parts of buildings intrude onto others' lands.[90]

Similarly, the right to transfer is restricted by

Adverse possession, which forces a transfer from the landowner to the possessor when certain requirements are met,[91]

The invalidation of *total restraints on alienation*, which prevent the transfer of property interests,[92]

Eminent domain, by which landowners must transfer their interests to the government,[93] and

Antidiscrimination statutes such as the Fair Housing Act, which prohibits a person from refusing to sell or rent a dwelling on the grounds of "race, color, religion, sex, familial status, or national origin."[94]

Finally, the right to use is limited by

Zoning ordinances, which divide land into residential, commercial, and industrial districts and allow only certain uses in each district,[95]

The law of *nuisance*, which prevents a substantial and unreasonable interference with another's use or enjoyment of land,[96]

Constructive takings, in which government restrictions interfere with land use so much that the land is effectively "taken" from owners,[97] and

---

87. 2 DAVID A. THOMAS, THOMPSON ON REAL PROPERTY § 60.02(a), at 391 (1994).
88. RESTATEMENT (SECOND) OF TORTS § 197 (1977).
89. 9 RICHARD R. POWELL, POWELL ON REAL PROPERTY, § 64A.04[3][g], at 64A-42 (2000).
90. Carrier, *supra* note 68, at 73-74.
91. *Id.* at 58-59.
92. 14 POWELL, *supra* note 89, § 77.02, at 77-7 to 77-8.
93. Kelo v. City of New London, 545 U.S. 469, 476-77 (2005).
94. Civil Rights Act of 1968 (Title VIII), 42 U.S.C. § 3604(a) (2000).
95. 12 POWELL, *supra* note 89, § 79C.01, at 79C-7.
96. *Id.* § 64.02[2], [3], at 64-10 to 64-11.
97. 13 POWELL, *supra* note 89, § 79F.05, at 79F.

> *Government regulations* such as safety, fire, health, and building codes; clean air and water acts; growth control ordinances; and historic protection zones.[98]

Conventional property's exclusionary rights thus are cabined by an expansive array of limits. There is no such thing as absolute property. This reality, though undisputed in the realm of property, has been forgotten in the formulation of cyberproperty.

IV. AGAINST CYBERPROPERTY

Cyberproperty differs from conventional property according to every element described in Part III. First, cyberproperty is not justified within the frameworks of Locke's labor theory, Hegel's personhood rationale, or general utilitarian justifications. Second, it presents significant dangers for competition and expression. Third, it lacks limits.

A. Labor Theory

Cyberproperty proponents have invoked Locke's labor theory to justify the concept. Richard Epstein states that "[f]irms and individuals invest substantial amounts of capital and effort to create servers and websites . . . ."[99] Similarly, Patricia Bellia explains that "the law must provide sufficient protection of a network resource owner's investments . . . to generate appropriate incentives for productive activities."[100]

But for three independent reasons addressed in the following discussion, the labor theory does not support cyberproperty. First, the chattel owner is entitled only to the incremental value of her contribution to the network, not the total value created by the network itself. Second, in the network context, cyberproperty does not leave "enough and as good" for others. Third, cyberproperty creates a form of social waste that violates Locke's "spoilage" principle.[101]

---

98. WILLIAM B. STOEBUCK & DALE A. WHITMAN, THE LAW OF PROPERTY § 9.1, at 518 (3d ed. 2000).

99. Epstein, *supra* note 17, at 79.

100. Bellia, *supra* note 1, at 2191.

101. At a minimum, Locke's concern for the public's right to a commons supports limits on any type of property right. Steven J. Horowitz, *Rethinking Lockean Copyright and Fair Use*, 10 DEAKIN L. REV. 209, 216 (2005).

1. Incremental Value

The first reason that labor theory does not support cyberproperty is that a laborer contributing to a collaborative venture is entitled to receive only the incremental value of the resulting product.[102] Locke himself anticipated that his theory would apply only when labor was responsible for "the greatest part of the value" of the asset.[103]

Robert Nozick provided the most famous illustration of this principle. He asked: "If I own a can of tomato juice and spill it in the sea so that its molecules . . . mingle evenly throughout the sea, do I thereby come to own the sea . . .?"[104] Obviously not. The total value of an asset often is vastly greater than the value added by any single laborer.

The notion of incremental value takes on particular significance in the context of communications systems with "network effects." Network effects occur in markets in which a participant benefits from an increase in the number of other participants in the system.[105] A telephone or e-mail system, for example, becomes more valuable as the number of people connected to it increases.[106]

Networks feature positive feedback. The more popular a computer operating system becomes, for example, the more applications will be written for it. As application layers are added to the underlying system platform, the system becomes more popular, leading to even more applications being written, and so on.[107]

In a similar vein, networks tend to exhibit "generativity"—a "capacity to produce unprompted change driven by large, varied, and uncoordinated audiences"—in proportion to their scale.[108] A common and distributed language of computer code will produce more "generative" value than a cacophony of competing and incompatible software systems. The earliest version of the internet, the ARPANET, was created to overcome the prob-

---

102. *See, e.g.*, Edwin C. Hettinger, *Justifying Intellectual Property*, 18 PHIL. & PUB. AFFAIRS 31, 37 (1989).

103. LOCKE, *supra* note 54, at 28.

104. ROBERT NOZICK, ANARCHY, STATE, AND UTOPIA 175 (1974).

105. Michael A. Carrier, *Unraveling the Patent-Antitrust Paradox*, 150 U. PA. L. REV. 761, 822-23 (2002); David S. Evans & Richard Schmalensee, *A Guide to the Antitrust Economics of Networks*, 1996 ANTITRUST 36, 36.

106. Carrier, *supra* note 105, at 822-23.

107. *Id.*

108. Jonathan L. Zittrain, *The Generative Internet*, 119 HARV. L. REV. 1974, 1980 (2006).

lem posed by separate fiefdoms of computer code.[109] The TCP/IP protocol allows internet users to communicate with each other regardless of the hardware or software they use.[110] Today, of course, the ubiquity and dominance of the internet network—used by more than one billion users for communication, commerce, entertainment, and myriad other applications—is beyond question.[111]

Given the internet's vast network effects, the value of the system far exceeds the value of any individual investment in a single server or website. Intel's e-mail server may have provided some benefits as an internal communication system "unplugged" from the internet. But the *primary* value of the server flowed from the internet.[112] eBay's auction system has similarly benefited from "the easy and ubiquitous access to its auction service made possible by the open standards of the internet."[113]

For that reason, even if a chattel owner were to have a Lockean claim over a networked component as a stand-alone object, she cannot claim the value of the entire networked system. Network effects, not individual owners, are primarily responsible for the system's value.

2. Enough and As Good

The labor theory also does not support cyberproperty because of the violation of Locke's proviso that "there is enough, and as good left in common for others."[114]

The proviso may have been satisfied by the acorns and apples upon which Locke focused. A laborer in Locke's era could satisfy her needs while still leaving enough similar items for others.

A company's servers, in contrast, are unique assets in the context of the internet as a communications system. If a cyberproperty regime allows the owner of a communicative system to reap the benefits of the network while denying those benefits to others, it does not leave the networked

---

109. KATIE HAFNER & MATTHEW LYON, WHERE WIZARDS STAY UP LATE: THE ORIGINS OF THE INTERNET 39-46 (1996).

110. TCP/IP stands for Transmission Control Protocol/Internet Protocol. Bob Kahn and Vint Cerf formulated TCP/IP in 1973 to bolster network robustness and reliability. *Id.* at 226-27.

111. World Internet Usage Statistics News and Population Stats, Internet Usage Statistics—The Big Picture, http://www.internetworldstats.com/stats.htm (last visited Oct. 3, 2006).

112. Intel Corp. v. Hamidi, 30 Cal. 4th 1342, 1359 (Cal. 2003) ("Intel connected its e-mail system to the Internet and permitted its employees to make use of this connection both for business and, to a reasonable extent, for their own purposes.").

113. Burk, *supra* note 14, at 51-52.

114. *See* LOCKE, *supra* note 58, ¶ 27, and accompanying text.

commons with "enough and as good" for others. Illustrations of two prototypical cyberproperty cases demonstrate the point.

In the *Hamidi* case, the lower court's injunction precluded the former employee from communicating by e-mail with any Intel employees at their Intel addresses. The California appellate court stated that Hamidi did not need access to Intel's server because "Hamidi is free to send mail—'e' or otherwise—to the homes of Intel employees."[115] Of course, this prohibition has a significant effect by barring Hamidi from access to Intel's unique network. In the context of communicative chattels, Intel's appropriation of its e-mail nodes fails to leave "enough and as good" for Hamidi.

Similarly, in *eBay*, the company sought to exclude competitors from access to its server. eBay, of course, has enjoyed remarkable success from its auction network, which has drawn online customers from around the world and has benefited from vast network effects. But eBay's exclusion of others from its price data does not leave "enough and as good" for competitors or the public. This conclusion is bolstered given the company's powerful market position in online auctions and the "natural monopoly" characteristics of such sites.[116] In short, eBay's exclusion of Bidder's Edge violated the proviso by appropriating all the auction price data flowing from the external users of its system, the merchants.

In allowing network owners to exclude others from non-fungible, network-derived resources, cyberproperty violates Locke's "enough and as good" proviso.

3. Spoilage

The final reason the Locke labor theory does not support cyberproperty is that it violates the requirement that the laborer is limited to "[a]s much as any one can make use of to any advantage of life before it spoils."[117]

With the creation of trading and capital markets, the spoilage principle applies less directly today than at the time Locke wrote. And obviously, networked computers are different from apples and acorns in that they do not physically decay. But to the extent the spoilage principle is still relevant, it would prevent owners of socially valuable technology or informa-

115. Intel Corp. v. Hamidi, 94 Cal. App. 4th at 343.

116. Given the benefits of aggregating all buyers and sellers at one site, the optimal number of auction sites would appear to be one.

117. LOCKE, *supra* note 54, ¶ 27.

tion from refusing to use the resources so that they effectively are wasted.[118]

Cyberproperty regimes generally encourage social waste. The very premise of the regime is that a chattel owner should be able to enjoin non-damaging public access to computing resources and information. Cyberproperty thus curtails network effects and generativity by giving chattel owners the right to stifle valuable public uses of network-connected resources. Locke's prohibition against spoilage thus provides the final reason that the labor theory does not support cyberproperty.

B. Personhood Theory

Personhood theory, in either its Hegelian or contemporary form, also does not support cyberproperty.

Like any inanimate object, networked electronic equipment could be subject to Hegel's application of the human will. But no characteristic of this equipment suggests special treatment that would remove the item from the realm of general property law.

This lack of unique treatment is crucial given Hegel's conservative approach to existing law. Hegel supported existing property doctrines on account of their careful balance of rights and limits. Because he believed that property should reflect a contemporaneous engagement between a will and a thing, Hegel endorsed the doctrine of prescription, by which trespassers received title to land after using it for a period of time.[119] He appreciated copyright's limited rights and duration, as well as its utilitarian framework, which "advance[d] the sciences and arts" by enabling creators "to benefit from the protection of their property."[120] Hegel even approved of state-endorsed commons ownership regimes.[121]

Each of these forms of property rights reflected careful balances between property owners and others. For that reason, the absolute ownership rights envisioned by cyberproperty proponents today would not find support in Hegel's views on property law. Such rights diverge from the standard legal analysis of chattel property without offering any basis for unique treatment.

Contemporary personhood theories also do not justify special treatment for digital equipment. Such theories emphasize chattel property that

118. Hettinger, *supra* note 102, at 45 (noting that the charging of fees for intellectual products prevents "certain beneficial uses," which "is clearly wasteful, since everyone could use and benefit from intellectual objects concurrently").

119. HEGEL, *supra* note 60, ¶ 64.

120. *Id.* ¶¶ 64, 69.

121. *Id.* ¶ 46.

is non-fungible and intimately entwined with a person's identity. Networked digital machinery does not satisfy such criteria. Computers and servers function as fungible office equipment, much like staplers and pencils. Digital equipment is purchased at arm's length and not created or shaped by the will of the ultimate owner. Web servers and personal computers are often alienated, abandoned, or shelved when a new model comes along.

Nor is heightened protection needed for the information contained in the chattels. Much of the information present on computers has no connection to personhood. The price data in *eBay* and the metatags in *Oyster Software*, for example, are hardly embodiments of some artistic soul. Even the forms of information that may be personal and intimate—such as e-mail correspondence—already are protected by privacy laws.[122] The non-rivalrous nature of information reveals another difference with property: in contrast to tangible chattels like wedding rings, personal information is not removed from its owner when accessed by others.

The identity of the holder of the cyberproperty right reveals yet another incongruity with the personhood theory. Cyberproperty gives chattel-owning plaintiffs rights even if they did not produce personal information. But in the online setting, the individuals with the strongest personal connections to information tend not to be the legal owners of the computing equipment on which the information resides.[123]

Given the above, it is not surprising that cyberproperty claims have *never* been asserted by individuals seeking to protect online personhood interests. Instead, the claims are brought by profit-centered private firms, such as Intel, eBay, Oyster Software, and Ticketmaster.[124] These companies are motivated to protect their customers' personhood and privacy only

---

122. *E.g.*, Electronic Communications Privacy Act of 1986 (ECPA), Pub. L. No. 99-508, 100 Stat. 1848 (codified as amended at 18 U.S.C. §§ 2701-2709, 2711-2712 (2000)). *See generally* Pamela Samuelson, *Privacy As Intellectual Property?*, 52 STAN. L. REV. 1125 (2000) (contending that IP laws should not protect privacy rights).

123. A similar case is presented by "avatars," the technological agents of individuals in electronic environments. The owners of the chattels that constitute virtual worlds differ from the legal owners of the avatars that inhabit those worlds. Lastowka & Hunter, *supra* note 54, at 48-49.

124. *See, e.g.*, Oyster Software, Inc. v. Forms Processing, Inc., No. C-00-0724 JCS, 2001 WL 1736382 (N.D. Cal. Dec. 6, 2001); eBay, Inc. v. Bidder's Edge, Inc., 100 F. Supp. 2d 1058 (N.D. Cal. 2000); Ticketmaster.com v. Tickets.com, No. CV99-7654-HLH, 2000 U.S. Dist. LEXIS 12987 (C.D. Cal. Aug. 10, 2000); Intel Corp. v. Hamidi, 30 Cal. 4th 1342 (Cal. 2003).

when it aligns with their economic interests.[125] In particular, the companies use cyberproperty to exclude critical voices or prevent competitors from gaining access to information and communication resources.[126] Such motivations have nothing to do with personhood theories of property.

In short, Hegelian theory does not support cyberproperty. The theory offers no basis for treating cyberproperty as a unique form of property exempt from the ordinary and balanced rules governing chattels. Contemporary personhood theory similarly does not justify special solicitude for computing equipment and the information contained therein.

C. Utilitarianism

The final justification also does not support cyberproperty. In particular, neither of the two utilitarian rationales for conventional property rights—providing incentives for development and preventing the depletion of finite resources—justifies cyberproperty.

1. Incentives

Cyberproperty is not needed to provide incentives to generate value online. Experience has proven as much: the internet has grown and thrived without relying on a regime of cyberproperty.

No evidence has ever been adduced to link increased production to cyberproperty. The internet was built as a network of networks with information being shared between open nodes.[127] By contrast, "walled garden" models, in which proprietary zones have been segregated from the greater internet, have failed to lead to creativity and innovation. If anything, it is the most heavily "propertized" regimes that have not been capable of long-term survival in the networked ecosystem.[128]

The World Wide Web has thrived as an information commons without strong property rights.[129] The Web is a type of "commons": the default

125. To offer just one example, AOL, Microsoft, and Yahoo readily complied with recent government subpoenas seeking disclosure of personal information disclosed in user search engine queries. Gonzales v. Google, 234 F.R.D. 674, 679 (N.D. Cal. 2006). Google resisted the subpoena, but not because individuals had personal rights to the information revealed in the queries. Rather, it feared that disclosure would be burdensome and harmful to its business reputation. *Id.* at 683-84.

126. *See, e.g.*, Margaret Jane Radin, *A Comment on Information Propertization and its Legal Milieu*, 54 CLEV. ST. L. REV. 23, 37 (2006) (lamenting lionization of property rules at expense of competition and free speech).

127. HAFNER & LYON, *supra* note 109.

128. *See* Zittrain, *supra* note 108, at 1992.

129. *See* David G. Post, *His Napster's Voice*, 20 TEMP. ENVTL. L. & TECH. J. 35, 43 (2001).

presumption is that all files available on any server worldwide can be accessed instantly at the request of any other computer. Some of the most important innovations in networked computing have flowed from the architecture of open, generative systems.[130] Successful internet companies like Google have built business models based on universal access to the vast information on the Web, profiting from the positive externalities generated by this "comedy of the commons."[131]

In addition to not providing necessary incentives, cyberproperty has been supplanted by other regimes. As described in more detail in Part V,[132] copyright protects much of the information that appears on websites. Copyright owners thus already receive strong exclusionary rights for many of the words and images that appear on websites. This system generally encourages owners "to improve the site" while allowing others to build on such information "[to] produc[e] yet more works of authorship."[133]

Technological mechanisms such as password-protected databases and online services provide another affordable, effective regime minimizing the need for cyberproperty's incentives.[134] Web-based e-mail systems, online banking systems, commercial databases, and an array of other software systems successfully use password systems to limit access to authorized account holders.[135] If anything, such a private regime may be overly effective in trumping law's public ordering.[136]

In short, even if cyberproperty could spur the development of the internet, robust technological and intellectual property regimes would be more effective, and less dangerous, in achieving this goal.

2. *Tragedy of the Commons*

Related to cyberproperty's futility in creating incentives is its uselessness in preventing a "tragedy of the commons." Proponents contend that cyberproperty is needed to prevent such a tragedy in cyberspace.[137] But

---

130. *See* Zittrain, *supra* note 108, at 1980.

131. Rose, *supra* note 71. For a discussion of the incentives fueling the production of Internet information resources, see Greg Lastowka, *Digital Attribution*, 87 B.U. L. REV. 41 (2007).

132. *See infra* Part V.C.

133. O'Rourke, *supra* note 13, at 592.

134. *See generally* BRUCE SCHNEIER, SECRETS & LIES 59-81 (2000) (discussing societal demands for information security).

135. *See id.*

136. LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (1999); Margaret Jane Radin, *Regulation by Contract, Regulation by Machine*, 160 J. INSTITUTIONAL & THEORETICAL ECON. 142 (2004).

137. *E.g.*, Epstein, *supra* note 17, at 74.

they ignore property's mixed record on this score[138] in plunging into an unabashed defense of a private right to electronic inviolability.[139]

Cyberproperty proponents' confidence that the doctrine is necessary to prevent a tragedy of the commons is unfounded. There is no evidence that cyberproperty's absence would create a tragedy of the commons. The fears of depletion and overuse of server bandwidth and processing power are overstated. The internet has existed and thrived for many years without having confronted any serious and systemic bandwidth crises.

Even a server "crash" resembles a commons comedy more than tragedy. Web servers sometimes crash when publicly available information draws excessive "viral" word-of-mouth traffic that stresses the processing resources to the point of software failure.[140] At first glance, this may appear to present an example of a bandwidth tragedy of the commons. But when viewed in the appropriate context of internet business models and provider incentives, the influx of traffic is more naturally considered a business opportunity, not a burden. In nearly every conceivable case, the potential benefits reaped by the host through advertising and promotion exceed the costs of acquiring additional bandwidth.[141] In fact, for very popular information, sites are often eager to host surplus traffic in exchange for obtaining advertising revenues.[142] There is no legitimate concern that information with social value will disappear from the internet due to a "server crash" crisis.

The cases show that cyberproperty plaintiffs almost never allege overuse of resources or bandwidth.[143] In the *eBay* case, for example, Bidder's Edge's web crawlers represented "between 1.11% and 1.53% of the total load on eBay's listing servers."[144] The court conceded that eBay did not "allege[] any specific incremental damages due to [Bidder's Edge] activ-

138. *See supra* notes 78-81 and accompanying text.

139. *See, e.g.*, Epstein, *supra* note 8, at 164 ("[T]he creation of any commons will chill the incentive to invest."); Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1065-67 (2005) (applying Demsetzian theory to virtual property claims).

140. *See* Wikipedia, Slashdot Effect, http://en.wikipedia.org/wiki/Slashdot_effect (last modified Nov. 17, 2007).

141. For a discussion of the economic rationale of "free" content production, see Lastowka, *supra* note 131.

142. Many leading Web companies, such as Yahoo!, Microsoft, and Google, offer free hosting services that are subsidized by advertising revenue and designed to encourage the posting of various forms of content. *See, e.g.*, http://www.flickr.com (photos); http://www.blogger.com (blogs).

143. The one exception is the case of "spam," discussed below. *See infra* Part V.A.

144. eBay, Inc. v. Bidder's Edge, Inc., 100 F. Supp. 2d 1058, 1064 (N.D. Cal. 2000).

ity"[145] and found that an eBay witness was not "aware of any complaints from eBay users about slowdowns that were caused by aggregators."[146] Instead, the "harm" stemmed from the deprivation of eBay's ability "to use [a] portion of its personal property for its own purposes."[147]

Similarly, in *Register.com v. Verio*,[148] the plaintiff could offer only "imprecise" evidence of harm to its computer system, as it was unable "to directly measure the amount by which its systems capacity was reduced."[149] The court nonetheless concluded that "evidence of mere possessory interference is sufficient to demonstrate the quantum of harm necessary to establish a claim for trespass to chattels."[150]

Yet again, in *Oyster Software*,[151] the plaintiff "presented no evidence that the use of [defendant's] robot interfered with the basic function of [its] computer system."[152] In fact, the plaintiff conceded that the robots "placed a 'negligible' load" on its system.[153] The court nonetheless concluded that the plaintiff made out a successful TTC claim "simply because the defendant's conduct amounted to 'use' of Plaintiff's computer."[154]

Finally, in the *Hamidi* case,[155] the defendant sent six e-mails over the course of two years.[156] The court found that there was "no actual or threatened damage to Intel's computer hardware or software" and "no interference with its ordinary and intended operation."[157] In particular, "Intel presented no evidence [that] its system was slowed or otherwise impaired by the burden of delivering Hamidi's electronic messages."[158]

In sum, utilitarianism provides just as little support for cyberproperty as do Lockean and Hegelian theories.

---

145. *Id.* at 1063.
146. *Id.* at 1063 n.4.
147. *Id.* at 1071.
148. 126 F. Supp. 2d 238 (S.D.N.Y. 2000).
149. *Id.* at 250.
150. *Id.* The company's vice president of technology estimated that "Verio's searching of Register.com's WHOIS database . . . resulted in a [diminution] of 2.3% of Register.com's system resources." *Id.* at 249. This estimation was "thoroughly undercut" during discovery. *Id.*
151. Oyster Software, Inc. v. Forms Processing, Inc., No. C-00-0724 JCS, 2001 WL 1736382 (N.D. Cal. Dec. 6, 2001).
152. *Id.* at *13.
153. *Id.*
154. *Id.*
155. Intel Corp. v. Hamidi, 30 Cal. 4th 1342 (Cal. 2003).
156. *Id.* at 1346.
157. *Id.* at 1353.
158. *Id.* at 1353.

D. Dangers

In addition to a lack of support, cyberproperty poses significant threats.

First, the concept takes aim at the open nature of the internet, which has led to flourishing and exponential growth. Expansive exclusionary rights and the walling off of sections of the internet threaten the system's beneficial network effects. Restricting legal rights to access publicly available information on the Web will inevitably dampen the pace of technological innovation. It is instructive that one of the earliest legal threats to Google, occurring when the company was a Stanford research project, came from website owners' claims that Google's indexing of their sites constituted a cybertrespass.[159]

Second, cyberproperty threatens speech. Under the guise of protecting "property," the concept gives website and server owners the ability to quash unwelcome speech. In the *Hamidi* case, Intel blocked Hamidi's e-mails to company employees not because they had a significant effect on its equipment but because the company did not appreciate the critical nature of the communications.

Such action flouts core free speech principles. Property law limits rights to exclude where landowners open their property to the public but threaten to cut off speech. In *Robins v. Pruneyard Shopping Center*,[160] for example, high school students sought to obtain support for a campaign against a United Nations anti-Zionist resolution by soliciting signatures for a petition and talking to shoppers.[161] The California Supreme Court, in a ruling affirmed by the U.S. Supreme Court, held that the state constitution "protect[s] speech and petitioning, reasonably exercised, in shopping centers even when the centers are privately owned."[162] "The more an owner," the U.S. Supreme Court explained, "opens up his property for use by the

159. JOHN BATTELLE, THE SEARCH 78-79 (2005); DAVID A. VISE & MARK MALSEED, THE GOOGLE STORY 56-57 (2005).

160. 447 U.S. 74 (1980).

161. *Id.* at 77.

162. Robins v. Pruneyard Shopping Ctr., 23 Cal. 3d 899, 347 (Cal. 1979). For another example, see N.J. Coalition Against War in the Middle East v. J.M.B. Realty Corp., 650 A.2d 757, 776 (N.J. 1994) (upholding right to distribute leaflets at shopping center because free speech interest outweighed mall operators' private property interests in light of "the practically unlimited permitted public uses found and encouraged on the[] property").

public . . . the more . . . his rights become circumscribed by the statutory and constitutional rights of those who use it."[163]

Free speech limits on property owners' rights are an important element of First Amendment protections. This principle has never been applied in the cyberproperty context. Courts have focused on an owner's ability to exclude others from its server. But they have not accepted plaintiffs' arguments that speech directed to a web or e-mail server should be protected by the First Amendment.[164]

Third, cyberproperty threatens competition. Competition is essential to the economy, resulting in lower prices, improved quality, and innovation. In order to increase innovation incentives, intellectual property (IP) protection sometimes limits competition. But IP, at least in theory, is subject to important duration, scope, and subject matter limits.[165] The public domain of unprotected materials ensures a robust competitive market benefiting consumers.

Cyberproperty threatens to tear apart this delicate balance. The right to block unwanted visitors that courts grant to website owners is not limited in duration, scope, or subject matter. The *eBay* court, for example, gave eBay an absolute right to exclude competitors from accessing its website even though the information gathered was not protected under IP doctrines and consumers would have benefited from the aggregation of information.[166] Such excessive protection tends to limit choice and raise prices for consumers.

E. No Limits

Cyberproperty's dangers are magnified by a lack of limits. Limits are at the core of property, with at least fifty limits restricting property owners' rights to exclude, use, and transfer.[167] These limits do not apply to cyberproperty.

---

163. Marsh v. Alabama, 326 U.S. 501, 506 (1946) (considering a "company town" that resembled a typical town except that it was owned by a company).

164. *See, e.g.*, Cyber Promotions, Inc. v. America Online, Inc., 948 F. Supp. 436 (E.D. Pa. 1996) (finding no First Amendment right to send e-mail to AOL because AOL is not a state actor); *see generally* Dawn C. Nunziato, *The Death of the Public Forum in Cyberspace*, 20 BERKELEY TECH. L.J. 1115, 1171 (2005) (concluding that "the death of public places in cyberspace brings with it the erosion of important First Amendment values"). For the sole contrary example, see Intel Corp. v. Hamidi, 30 Cal. 4th 1342, 1363-64 (Cal. 2003) (concluding, in dicta, that Hamidi's e-mails to Intel were subject to First Amendment protection).

165. Carrier, *supra* note 68, at 13-24.

166. eBay v. Bidder's Edge, 100 F. Supp. 2d 1058, 1061-62 (N.D. Cal. 2000).

167. *Id.* at 52-80.

Limits in property law serve several important purposes. Some, such as imminent necessity, eminent domain, and takings, restrict rights for purposes of necessity.[168] Others, such as easements, the invalidation of alienation restraints, and adverse possession, encourage development.[169] And others, such as antidiscrimination statutes, nuisance, and the law of encroachments, promote equity.[170]

Computer networks are complex and relational communication systems. If the "sole and despotic dominion" of Lord Blackstone does not apply to the sacrosanct and spatially secluded family home,[171] it certainly does not apply to networks in cyberspace. The need for careful balances and flexible evolutionary structures is paramount in the context of the internet.

But courts applying the cyberproperty concept have not imposed any limits on its scope. They focus obsessively on an owner's right to exclude, never considering other public policies implicated by property.[172] The prohibition on "use" and electronic contact provides owners of network-connected computers with a caricature of absolute rights. While exclusionary rights are important, traditional property law recognizes that limits also are important. Cyberproperty does not.

If the Lockean, Hegelian, or utilitarian theories provided support for cyberproperty, then a more nuanced regime might be appropriate. If that were the case, it is conceivable that cyberproperty could, like property, adopt limits, which would minimize its dangers. But because the philosophical justifications provide *no* support for cyberproperty, limits would not be appropriate. Limits—no matter how well they blunt cyberproperty's many potential dangers—cannot justify a wholly unnecessary regime. It is preferable to abandon cyberproperty. As the next Part shows, such a course is further justified by the existence of alternative regimes.

V. THE END OF CYBERPROPERTY

Part IV showed that cyberproperty (1) is not supported by property's rationales, (2) threatens significant dangers, and (3) lacks effective limits. Such conclusions provide strong support for abandoning the concept. In

168. *See supra* Part III.C.

169. Carrier, *supra* note 68, at 54-65.

170. *Id.* at 73-80.

171. Robert P. Burns, *Blackstone's Theory of the "Absolute" Rights of Property*, 54 U. CIN. L. REV. 67, 75 (1985).

172. *See, e.g.*, Intel Corp. v. Hamidi, 30 Cal. 4th 1342, 1375 (Cal. 2003) (Brown, J., dissenting) ("Regardless of whether property is real or personal, it is beyond dispute that an individual has the right to have his personal property free from interference.")

fact, because various federal statutes now serve cyberproperty's goals, its jettisoning would have no deleterious effect.

In this Part, we discuss four statutory regimes that supplant the need for cyberproperty: electronic invasion, spam, copyright, and (potential) database protection legislation.

A. Electronic Invasion

Proponents justify cyberproperty by emphasizing its role in preventing unauthorized electronic invasion. They build on Blackstone's concept of "sole and despotic dominion" and an absolute right to exclude others from one's property.[173]

Some internet-connected servers, to be sure, store personal and confidential information behind technological barriers. Like locks or fences, these barriers impede public access while providing notice that the information is not open to view. Anyone who has used a password to access an account, ordered a product on Amazon.com, or used a proprietary database such as Westlaw appreciates such exclusionary technologies. Yet, like their real counterparts, exclusionary technologies can be broken.

This failure, however, does not justify the regime of cyberproperty. In the past two decades, federal and state legislatures have enacted comprehensive statutes prohibiting various forms of "unauthorized access" to private computer systems.[174] The most important such statute is the federal Computer Fraud and Abuse Act (CFAA), which criminalizes unauthorized access to most computer systems and which requires civil plaintiffs to show at least $5,000 in damages.[175]

The CFAA targets an array of potential harms, including espionage, access to health care records, the transmission of destructive programs, and trafficking in password keys.[176] It also specifies various remedies and

---

173. *E.g.*, Epstein, *supra* note 8, at 163; David McGowan, *Website Access: The Case for Consent*, 35 LOY. U. CHI. L.J. 341, 359 (2003).

174. *See generally* Patricia L. Bellia, *Chasing Bits Across Borders*, 2001 U. CHI. LEGAL F. 35, 88 n.160 (noting that all fifty states have passed a version of a computer crime statute). For one example, see N.J. Stat. § 2C:20-25 (criminalizing the accessing of computer databases and equipment without authorization).

175. 18 U.S.C. § 1030 (Supp. V 2005). Suit is also authorized where there are threats to public safety or physical injury. 18 U.S.C. § 1030(g).

176. 18 U.S.C. § 1030(a)(1) (espionage); § 1030(a)(5)(B) (health care); § 1030(a)(5)(A)(i) (damage via transmission of code); § 1030(a)(6) (password trafficking).

penalties.[177] Since the early 1990s, courts have regularly applied the statute in criminal and civil suits where electronic invasions have disrupted the functioning of systems or permitted individuals to obtain access to personal data.[178]

To be sure, the CFAA is a broad statute, with expansive interpretations of "unauthorized access" that potentially reach every network-connected computer engaged in "interstate commerce or foreign communication."[179] Some commentators even treat the CFAA as a federal statute mirroring cyberproperty.[180]

But at least the CFAA focuses more directly than cyberproperty on what legislatures consider wrongful acts of electronic invasion. This very concern was the reason for a congressional statute, evincing a social purpose lacking for cyberproperty. And continued interest has been shown through multiple judicial interpretations of, and congressional amendments to, the statute in the past two decades.

Given the CFAA's existence, the only apparent reason that plaintiffs have relied on cyberproperty is to substitute its blunt and unbounded regime for the CFAA's complex statutory scheme. In the *eBay*, *Oyster Software*, and *Ticketmaster* cases,[181] for example, the plaintiffs sought to obtain absolute proprietary rights in publicly available information, an explosive weapon not found in the CFAA's arsenal.

In particular, cyberproperty courts have found defendants liable for non-damaging acts of accessing data posted on publicly accessible web servers.[182] The plaintiffs in *eBay* and *Oyster Software* sought such protection and successfully used cyberproperty to prevent competitors from accessing data available to any potential customer with an internet browser.

---

177. 18 U.S.C. § 1030(a) (providing remedies according to defendant's conduct and intentions); § 1030(c) (calibrating punishment with reference to defendant's mental state and the statutory provisions).

178. *See, e.g.*, U.S. v. Mitra, 405 F.3d 492 (7th Cir. 2005); Theofel v. Farey-Jones, 341 F.3d 978 (9th Cir. 2003).

179. Shurgard Storage Ctrs., Inc. v. Safeguard Self-Storage, Inc., 119 F. Supp. 2d 1121, 1124-25 (W.D. Wash. 2000). *See generally* Orin Kerr, *Cybercrime's Scope: Interpreting "Access" and "Authorization" in Computer Misuse Statutes*, 78 N.Y.U. L. REV. 1596 (2003) (explaining interpretations that confuse contractual terms with technological protections).

180. *E.g.*, Wagner, *supra* note 1, 498; Hunter, *supra* note 12, at 483.

181. Oyster Software, Inc. v. Forms Processing, Inc., No. C-00-0724 JCS, 2001 WL 1736382 (N.D. Cal. Dec. 6, 2001); eBay, Inc. v. Bidder's Edge, Inc., 100 F. Supp. 2d 1058 (N.D. Cal. 2000); Ticketmaster.com v. Tickets.com, No. CV99-7654-HLH, 2000 U.S. Dist. LEXIS 12987 (C.D. Cal. Aug. 10, 2000);

182. *See generally* Jane K. Winn, *Crafting a License to Know From a Privilege to Access*, 79 WASH. L. REV. 285 (2004).

In short, the CFAA's scope, statutory detail, and history minimize the need for cyberproperty to prevent electronic invasion.

B. Spam

Courts initially applied cyberproperty to target a second concern: "spam," or unsolicited commercial e-mail. They enjoined the distribution of spam to computing equipment owners, readily citing *Thrifty-Tel*'s assertion that "electronic signals . . . [a]re sufficiently tangible to support a trespass cause of action."[183]

In the late 1990s, cyberproperty in fact was one of the few available doctrines on which plaintiffs could rely in seeking to block spam. Even cases that did not directly involve spam featured lengthy discussions about the problems it caused.[184] Cyberproperty proponents justified the new legal regime by seizing on the difficulties engendered by spam.[185]

But any need for a cyberproperty solution to spam was substantially reduced with the enactment in 2003 of a federal anti-spam statute, the CAN-SPAM Act.[186] This Act creates "opt-out" regimes for commercial e-mail solicitations, mandates labeling requirements for such messages (designed to facilitate mail filtering), and imposes significant fines on those who fail to comply with its requirements.[187] As an effort to address the problem of spam, the legislation is superior to cyberproperty because it is more narrowly targeted and calls for less analytic gymnastics by not requiring plaintiffs to demonstrate damage to the receiving equipment.

To be sure, the CAN-SPAM Act has been criticized and has not been wholly effective in stemming the tide of spam.[188] Like much of the internet, e-mail technology follows a default rule that transfers all packets received by an intermediary computer without discrimination. The vast majority of e-mail spam in the United States is sent by parties who are in open violation of the statute and who theoretically are subject to massive fines.[189] Yet by using international networks of hijacked computers and

---

183. *See supra* note 32.

184. Intel Corp. v. Hamidi, 30 Cal. 4th at 1353, 1380 n.7, 1390 n.3.

185. *E.g.*, Epstein, *supra* note 17, at 79; McGowan, *supra* note 173.

186. Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003, 15 U.S.C. §§ 7701-7713 (Supp. 2004) [hereinafter "CAN-SPAM Act"].

187. *Id.*

188. *E.g.*, Tom Zeller Jr., *Law Barring Junk E-Mail Allows a Flood Instead*, N.Y. TIMES, Feb. 1, 2005, at A1 (noting that spam constitutes at least eighty percent of all e-mail, a figure higher than before the CAN-SPAM Act took effect).

189. *See id.* ("Any spammer worth his salt is not going to follow CAN SPAM . . . because it would be filtered out immediately."); D. Firestone & S. Hansel, *Senate Votes To Crack Down on Some Spam*, N.Y. TIMES, Oct. 23, 2003, at C1 (providing comment of

questionable business networks of spammer-friendly and spammer-indifferent partners, spamming persists despite the requirements of the CAN-SPAM Act.[190]

At the dawn of the 21st century, only inconsistent state statutes addressed spam.[191] At that time, cyberproperty may have been justified as a tool providing a legal claim against spammers. But the passage of the CAN-SPAM Act renders cyberproperty unnecessary.

Any future solution to spam will require not a bloated common law doctrine but a combination of technological innovation and more effective law enforcement techniques. Yet even a technological solution does not appear to be forthcoming.[192] The first party to market such a solution stands to reap substantial rewards, but several feasible plans have not moved forward because the relevant parties have been unable to cooperate.[193]

In short, the over-expansive, blunt cyberproperty doctrine offers no benefit not provided by the narrowly targeted CAN-SPAM Act. While technological innovation and law enforcement might ultimately solve the spam problem, courts and legislatures will not.[194] Cyberproperty, in other words, is not the answer. Its jettisoning would not even be noticed.

C. Copyright

The desire to protect the proprietary value of information appearing on websites is another rationale invoked by cyberproperty proponents.[195]

---

then-FTC chair Timothy Muris: "Most spam is already so clearly illegitimate that the senders are no more likely to comply with new regulations than with the laws they now ignore").

190. Brad Stone, *Spam Doubles, Finding New Ways to Deliver Itself*, N.Y. TIMES, Dec. 6, 2006, at A1.

191. David E. Sorkin, *Spam Legislation in the United States*, 22 J. MARSHALL J. COMPUTER & INFO. L. 3, 4 (2003) (noting that the thirty-six states that enacted spam legislation between 1997 and 2003 offer different disclosure requirements, "opt-out" procedures, geographic reach, and enforcement methods).

192. To be sure, filtering mechanisms have reduced the effect of spam on individual users.

193. Ariana Eunjung Cha, *Alliance Raised Hope in Fight Against Spam*, WASH. POST, July 3, 2005, at A01 (describing failure of effort to introduce authentication because of Microsoft's patent claims on the technology).

194. For one innovative proposal, see Theodore C. Loder et al., *An Economic Response to Unsolicited Communication*, BERKELEY ELECTRONIC J. ECON. ANALYSIS & POL'Y, Issue 1 2006 (advocating the creation of a reputation capital market for e-mail communication systems that does not filter messages based on content), *available at* http://www.bepress.com/bejeap/advances/vol6/iss1/art2/.

195. Epstein, *supra* note 17, at 84.

Claimed proprietary rights to information played an important role in the *eBay*, *Ticketmaster*, and *Register.com* cases.[196]

But a proprietary interest in the type of expression appearing on websites is exactly the focus of the copyright laws. Copyright protects "original works of authorship fixed in any tangible medium of expression."[197] It gives its owners powerful exclusive rights, including the rights to reproduce, distribute, display, and prepare derivative works.[198] If the website expression is sufficiently original, its owner has strong rights to exclude others.

Copyright's rationale is that the incentive provided by exclusive rights is necessary to increase the amount and quality of expressive works in society.[199] Like all IP laws, copyright strives to attain a balance between promoting initial creation through exclusive rights and subsequent creation through a robust public domain.

In recent years, this balance has shifted significantly in the direction of protection.[200] But at least balance is built into the structure of copyright, as articulated by Congress and interpreted by the courts. The "fair use" defense, for example, privileges uses by educators, commentators, and parodists that otherwise would infringe exclusive rights.[201] Copyright also is limited by a finite duration and a lack of protection for ideas, facts, and useful elements.[202]

Cyberproperty does not even attempt to engage in balance or tradeoffs. Information on websites is protected simply because it is present on a computer and the computer owner has a right to prohibit access to the underlying chattel.[203] Without even considering the need for incentives, cy-

---

196. eBay, Inc. v. Bidder's Edge, Inc., 100 F. Supp. 2d 1058, 1064 (N.D. Cal. 2000);. Register.com, Inc. v. Verio, Inc., 126 F. Supp. 2d 238, 251 (S.D.N.Y. 2000); Ticketmaster.com v. Tickets.com, No. CV99-7654-HLH, 2000 U.S. Dist. LEXIS 12987 (C.D. Cal. Aug. 10, 2000).

197. 17 U.S.C. § 102 (2000).

198. 17 U.S.C. § 106 (2005 Supp. V).

199. *See, e.g.*, Fogerty v. Fantasy, Inc., 510 U.S. 517, 524 (1994) ("The primary objective of the Copyright Act is to encourage the production of original literary, artistic, and musical expression for the good of the public.").

200. *See, e.g.*, Carrier, *supra* note 68, at 13-16.

201. 17 U.S.C. § 107 (2000). *See generally* Radin, *supra* note 126, at 30 (distinguishing copyright from cyberproperty by pointing to its built-in limits, which address "free speech . . . and competitive concerns").

202. Baker v. Selden, 101 U.S. 99 (1879) (ideas); Brandir Int'l, Inc. v. Cascade Pacific Lumber Co., 834 F.2d 1142 (2d Cir. 1987) (useful articles); Miller v. Universal Studios, 650 F.2d 1365 (5th Cir. 1981) (facts).

203. Oyster Software, Inc. v. Forms Processing, Inc., No. C-00-0724 JCS, 2001 WL 1736382, at *11-13 (N.D. Cal. Dec. 6, 2001).

berproperty permits chattel owners to unilaterally dictate the terms of access to unoriginal, public information.[204] And courts enforcing these rights do not consider countervailing policies.

Why, given the power of copyright rights, do plaintiffs rely on cyberproperty? Most likely because the information they seek to protect is not copyrightable subject matter. In fact, what they advocate is more akin to database protection.

D. Database Protection

Cyberproperty proponents contend that some data on web servers are valuable information products that require labor and should be proprietary. Cyberproperty rights allow database builders to exclude others from servers containing data, thereby—allegedly—providing incentives to create online databases.

But such an argument is not offered on a blank slate. In 1991, the Supreme Court, in *Feist Publications v. Rural Telephone Service*,[205] held that copyright's originality requirement was not satisfied by the listing of names and numbers in the white pages of a phonebook.[206] Although the requirement was low, some minimum amount of creativity was required. Databases lack the requisite creative spark and do not receive copyright protection.

Since *Feist*, there has been considerable debate about whether Congress should enact a statute protecting databases.[207] Scholars have disagreed about the constitutionality of such legislation.[208] They also have contended that incentives to create such works are not necessary.[209] No scholars appear to have argued that database protection is needed to pro-

204. *E.g.*, *id.*

205. 499 U.S. 340 (1991).

206. *Id.* at 363-64.

207. *See, e.g.*, 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, 551 (2000); Justin Hughes, *How Extra-Copyright Protection Of Databases Can Be Constitutional*, 28 DAYTON L. REV. 159 (2002); J.H. Reichman & Pamela Samuelson, *Intellectual Property Rights in Data?*, 50 VAND. L. REV. 51, 113-36 (1997).

208. *Compare* Benkler, *supra* note 207, at 551 (questioning constitutionality) *with* Thomas B. Nachbar, *Intellectual Property And Constitutional Norms*, 104 COLUM. L. REV. 272, 361 (2004) (supporting constitutionality).

209. Benkler, *supra* note 207, at 593.

vide incentives, but some have asserted that protection is necessary to balance the existing regime of "extra-copyright" laws and technologies.[210]

Congress has considered database protection legislation on several occasions.[211] But opposition has been raised each time, and such legislation has never been enacted.

The danger of cyberproperty is that it could achieve the result desired by database protection proponents while circumventing the political process. Companies like eBay or Register.com that receive an absolute right to condition the terms of access to data contained on a web server perform an end-run around the contentious debates in which the legislature has been actively engaged.[212]

In short, the information on websites either satisfies the requirements of copyrightability, in which case cyberproperty is not needed, or does not satisfy the requirements of copyright and should not be protected. The opposition to proposed database legislation reveals what happens when absolute rights in non-copyrightable information are considered directly. Cyberproperty offers a similarly absolute regime. It is only through its camouflage in property fatigues that it has emerged unscathed from the line of fire.

Spam legislation, electronic invasion statutes, and the copyright regime serve the same social purposes as cyberproperty. They do so with more nuance, balance, and concern for countervailing policies than cyberproperty does. The blocking of database legislation shows what happens when absolute, unnuanced regimes are exposed. Cyberproperty can no longer hide behind its property façade. And given the overlapping statutory schemes, cyberproperty proponents can no longer reasonably contend that it is necessary.

---

210. *E.g.*, Jane C. Ginsburg, *Copyright, Common Law, and Sui Generis Protection of Databases in the United States and Abroad*, 66 U. CIN. L. REV. 151, 152 (1997).

211. *See, e.g.*, Consumer Access to Information Act of 2004, H.R. 3872, 108th Cong. (2004); Database and Collections of Information Misappropriation Act, H.R. 3261, 108th Cong. (2003); Collections of Information Antipiracy Act, H.R. 354, 106th Cong. (1999); Collections of Information Antipiracy Act, H.R. 2652, 105th Cong. (1998); Database Investment and Intellectual Property Antipiracy Act of 1996, H.R. 3531, 104th Cong. (1996).

212. *See* eBay, Inc. v. Bidder's Edge, Inc., 100 F. Supp. 2d 1058, 1064 (N.D. Cal. 2000); Register.com, Inc. v. Verio, Inc., 126 F. Supp. 2d 238, 251 (S.D.N.Y. 2000). *Cf.* ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996) (upholding "shrinkwrap" license that protected database).

VI. CONCLUSION

Cyberproperty is built on the property paradigm. Scholars have debated this connection in discussing the propriety of cyberspace as the relevant analogy for the internet. But they have otherwise neglected to explicitly link the concept with property. Courts have enthusiastically adopted cyberproperty, applying it in numerous contexts to address concerns relating to spam, data aggregation, and unauthorized website access. But they have applied an absolute version of property—one at odds with its true self.

An analysis of property law demonstrates the limits and the competing public policies that are nowhere to be found in cyberproperty. Even more important, *none* of the primary theories supporting property—Locke's labor theory, Hegel's personhood rationale, and utilitarianism—justify cyberproperty.

The need for cyberproperty today is less than it has ever been. Narrowly focused statutes covering spam, electronic invasion, and copyright now address cyberproperty's concerns. In the meantime, the concept runs roughshod over nuanced statutory compromises while reducing competition and stifling freedom of expression.

The creation of cyberproperty was a mistake. Its harms far exceed its benefits. As time passes, it grows increasingly unsupported and dangerous. It is time to fix this mistake. It is time to abandon cyberproperty.