

COMMON LAW PROPERTY METAPHORS ON THE INTERNET: THE REAL PROBLEM WITH THE DOCTRINE OF CYBERTRESPASS

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The doctrine of cybertrespass represents one of the most recent attempts by courts to apply concepts and principles from the real world to the virtual world of the Internet. A creation of state common law, the doctrine essentially involved extending the tort of trespass to chattels to the electronic world. Consequently, unauthorized electronic interferences are deemed trespassory intrusions and rendered actionable. The present paper aims to undertake a conceptual study of the evolution of the doctrine, examining the doctrinal modifications courts were required to make to mould the doctrine to meet the specificities of cyberspace. It then uses cybertrespass to examine the implications of transposing property metaphors to the world of the Internet, characterized by the absence of resource rivalry and the reality of positive value enhancement through increased usage (i.e., a network effect, whereby participation in use by many is a condition for value in use by any). It is argued that the transposition of proprietary concepts to the Internet is done for purely instrumental reasons—reasons that derive neither from the nature of the resource nor its usage. The paper then evaluates whether such an instrumental use of proprietary concepts on the Internet has any effect on the meaning ordinarily attributed to the concept of property and the identification of property as an independent institution of moral significance. It concludes by showing that the relative neglect that doctrines such as cybertrespass have for identifying the boundaries of the res over which the property right is to operate, is capable of undermining the minimum core of any understanding of property as an independent institution.

INTRODUCTION

With the exponential growth of the Internet over the course of the last decade, courts and legislatures around the world have been forced to evolve legal principles to govern interactions in cyberspace. While a large number of these principles were original and developed *de novo* for the Internet, a significant number involved applying the extant body of legal rules to the virtual world. Property law by and large, fell into the latter of the two categories. As the process of transposing property concepts to the Internet began, it soon came to be realized that this was effecting a fundamental reconfiguration of the ways in which the Internet was meant to be used and developed. The Internet, initially visualized as a commons-based network was coming to be controlled extensively through private monopolies, operating through property rights. Freedom

and openness, considered by many to be the hallmarks of the Internet, were coming to be replaced with extensive private control—characterized by the term ‘proptertization’.¹

The doctrine of cybertrespass emerged in this context, with the courts’ application of the common law cause of action of trespass to chattels to the Internet. Reasoning that electronic interferences with server space constituted a tangible invasion, they thus found no problems with applying the doctrine to the world of cyberspace. In the process of adapting the doctrine to meet the requirements of cyberspace and fashioning a new remedy however, courts soon began to ignore the conceptual nuances that it involved and had come to incorporate in recognition of the nature of the resources it was applied in relation to, i.e., movables. As a consequence, the body of law that has emerged in relation to cybertrespass is replete with doctrinal ambiguities and inconsistencies.

Most of the literature that has thus far examined the doctrine of cybertrespass has tended to focus invariably on the broader policy issues involved.² Cybertrespass is thus viewed as characteristic of the proptertization of the Internet and consequently, scholars have tended to focus the debate on the implications of the doctrine and proptertization in general for the Internet as a whole. At one end of the spectrum are the critics of this proptertization, who argue that ‘over-proptertizing’ the Internet and related informational goods will actually curb technological creativity and impede fundamental freedoms on the Internet.³ Specifically in the context of cybertrespass, this school of thought argues that the doctrine results in a form of ‘over-proptertization’ that can actually impede the use of and innovation on the Internet, that it poses a threat to fundamental activities on the Internet or that it will impede the full realization of the Internet’s value as a technology of freedom.⁴ At the other end of the

1. See LAWRENCE LESSIG, *THE FUTURE OF IDEAS* (2001).

2. But see Daniel J. Caffarelli, *Crossing Virtual Lines; Trespass on the Internet*, 5 B.U. J. SCI. & TECH. L. 6 (1999) (examining the application of four prominent justificatory theories of property to the Internet and concluding that the law ought to recognize personal property in web sites).

3. See James Boyle, *The Second Enclosure Movement and the Enclosure of the Public Domain*, 66 L & CONTEMP. PROBS. 33 (2003); Lawrence Lessig, *The Architecture of Innovation*, 51 DUKE L.J. 1783 (2002); Maureen A. O’Rourke, *Property Rights and Competition on the Internet: In Search of an Appropriate Analogy*, 16 BERKELEY TECH. L.J. 561 (2001).

4. See Dan Hunter, *Cyberspace as Place and the Tragedy of the Digital Anticommons*, 91 CAL. L. REV. 439 (2003); Mark A. Lemley, *Place and Cyberspace*, 91 CAL. L. REV. 521 (2003); Dan L. Burk, *The Trouble with Trespass*, 4 J. SMALL & EMERGING BUS. L. 27 (2000); Laura Quilter, *The Continuing Expansion of Cyberspace Trespass to Chattels*, 17 BERKELEY TECH. L.J. 421 (2002); R. Clifton Merrell, *Trespass to Chattels in the Age of the Internet*, 80 WASH. U. L.Q. 675 (2002); Steve Fischer, *When Animals Attack: Spiders and Internet Trespass*, 2 MINN. INTELL. PROP. REV. 139 (2001).

spectrum are the economic libertarians, who argue that increased proprietization is critical for the Internet so as to facilitate transactions on the Internet, which would in turn result in the optimal allocation of resources.⁵ In the context of cybertrespass, they argue that the doctrine does not go nearly far enough, in proprietizing virtual space.⁶

What characterizes most of this literature on both sides of the debate however is a relative neglect of the conceptual issues involved in the transplantation of proprietary concepts to the Internet. While the doctrine of trespass to chattels (on which cybertrespass is modeled) is undoubtedly one of tort law, it nevertheless is premised on the existence of an underlying property right, which it seeks to vindicate, affirm and protect. It therefore becomes crucial to examine how the understanding of 'property' gets transmogrified during this move from the real to the virtual world. For over a century, legal theorists and philosophers have attempted to develop coherent theories to understand and justify the institution of property. Using the doctrine of cybertrespass, the present paper seeks to examine whether the application of property concepts to the Internet has any impact on the core assumptions and conceptual tools that underlie this understanding. It thus consciously attempts to analyze the doctrine of cybertrespass from a conceptual angle, focusing on the constitutive elements of the doctrine and its proprietary nature and discussing policy issues only in so far as they have a bearing on the conceptual apparatus involved.

The paper attempts to show that just as the doctrine may have far-reaching policy-related problems, so too does it have fundamental conceptual flaws that derive from the imprecision of perfunctorily transplanting proprietary concepts from the real to the virtual world. It is argued that the application of the property metaphor to the Internet through the doctrine of cybertrespass is done for purely instrumental reasons—that unlike in the context of other intangibles have no relation to the resource sought to be protected. This represents a fundamental shift from the ordinary deployment of property metaphors in the context

5. See Frank H. Easterbrook, *Cyberspace Versus Property Law*, 4 TEXAS REV. L. & POLITICS 103 (1999–2000); Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, [1996] U. CHI. LEGAL FORUM 207; Frank H. Easterbrook, *Intellectual Property is still Property*, 13 HARV. J. L. & PUB. POL. 108 (1991); Richard A. Epstein, *Intellectual Property: Old Boundaries and New Frontiers*, 76 IND. L.J. 804, 818–21 (2001).

6. Richard A. Epstein, *Cybertrespass*, 70 U. CHI. L. REV. 73 (2003); Richard A. Epstein, *Intel v. Hamidi: The Role of Self-help in Cyberspace?*, 1 J.L. ECON. & POL. 147 (2005); Richard Warner, *Virtual Borders: Trespass to Chattels on the Internet*, 47 VILL. L. REV. 117 (2002); Daniel Kearney, *Network Effects and the Emerging Doctrine of Cybertrespass*, 23 YALE L. & POL'Y REV. 313 (2005) (arguing that a clear rule of cybertrespass will maximize the efficiencies of online networks).

of intangibles and is premised on an attempt to regulate individual behavior on the Internet through the use of property-tort doctrine.

Part I provides a detailed analysis of the doctrine of cybertrespass, tracing its evolution in cases of unwanted mass electronic communications (spam) and examining the gradual crystallization of its constituent requirements, with its resultant ambiguities. After examining the process through which common law courts ordinarily create new property interests in intangibles (Part I.A) and the basics of the tort of trespass to chattels (Part I.B), it proceeds to analyze the genesis of cybertrespass in three phases (Part I.C). While the phases are chronological in sequence, they each also represent a distinct conceptual approach that courts adopted at the time, in turn representative of the relative levels of confidence with which they applied the doctrine to new situations. Part I then concludes by examining possible reasons why courts chose the trespass to chattels metaphor over the trespass to realty one, in the context of the Internet and posits two possible explanations (Part I.D).

Part II attempts to focus on examining cybertrespass through the prism that is property theory—examining possible reasons for the use of the property concept on the Internet and identifying the conceptual problems associated with the same. It begins with an overview of what the concept of property means and attempts to identify a minimum core of commonality between some of the more prominent conceptions of property (Part II.A) and then examines the problems associated with the metaphorical application of the property concept to intangibles and the changes in some of the core assumptions of property that this might necessarily entail (Part II.B). Part II.C then argues that the metaphorical application of trespass to chattels to the Internet faces an additional problem; one associated with the precise identification of the resource from which the exclusion is to operate, that derives from the layered nature of the Internet.

The paper then concludes by arguing that cybertrespass aptly illustrates the problems associated with the instrumental use of common law theories, when such use ignores the doctrinal nuances that the common law has come to develop.

I. CYBERTRESPASS: NEW CAUSE OF ACTION/NOVEL PROPRIETARY INTEREST?

A. *Common Law Proprietary Entitlements in Information*

How have courts approached the issue of creating or recognizing novel proprietary interests in informational goods? The process through

which this is usually done by courts, exhibits a synthetic interaction between the very right sought to be protected and the remedy through which such protection is ultimately accorded. Does this render the conceptual distinction between a *property right* and a *proprietary remedy*, redundant?

In relation to judicially-created proprietary entitlements, a point that becomes readily apparent is the difference in approach between courts in the United States and those in other common law jurisdictions, most notably the United Kingdom and Australia. Courts in the United States have been more ready to create novel interests than their overseas counterparts.⁷ While the reasons for the same are beyond the scope of the present paper, it is crucial to bear this in mind, given that the doctrine of cybertrespass is ultimately the creation of the American judiciary.

The courts' readiness to break new doctrinal ground is shown par excellence in *International News Services (INS) v. Associated Press*,⁸ where the United States Supreme Court recognized in the plaintiff a 'quasi-proprietary' entitlement to restrict competitors from misappropriating news reports that it had expended time and resources to collect. The defendant in this case, had copied news stories from the plaintiffs east coast edition, for its own west coast edition. The majority of the court, influenced by the seeming unfairness of letting one party free ride on the efforts of another, found itself unfettered in fashioning a proprietary remedy under the head of 'misappropriation'. Brandeis J, in his forcefully worded dissent, made explicit the problems associated with the judicial creation of novel proprietary interests, characterizing courts as ill-equipped and powerless for the task.⁹ While the majority of the Court went out of its way to make clear that the right it was creating would operate only *in personam* and not *in rem*,¹⁰ it appeared much less concerned with the need to establish the conceptual malleability of the common law—crucial to the methodological legitimacy of its endeavor.

7. For a general discussion, see Andrew Terry, *Unfair Competition and the Misappropriation of a Competitor's Trade Values*, 51 MOD. L. REV. 296 (1988); Gerald Dworkin, *Unfair Competition: Is the Common Law Developing a New Tort?*, [1979] EUR. INTELL. PROP. REV. 241; Sam Ricketson, *Reaping Without Sowing: Unfair Competition and Intellectual Property Rights in Anglo-Australian Law*, [1984] U. NEW SOUTH WALES L.J. 1.

8. 248 U.S. 215 (1918).

9. *Id.* at 267.

10. *Id.* at 236. The Court observed, "we hardly can fail to recognize that for this purpose, and as between them, it must be regarded as quasi property, irrespective of the rights of either as against the public."

The Court's approach in *INS* has been commended by Epstein as being an apt illustration of legal incrementalism;¹¹ the minimalist development of legal principles through individual cases and analogies.¹² While incrementalism may certainly be preferable to open-ended judicial policy-making, it nevertheless remains true that when it involves radical reformulations of entrenched doctrines (as it did in *INS*) to suit the requirements of an individual case, it sets a methodological precedent; a precedent to the effect that there exists nothing within the realm of the common law that militates against such individual reformulations of the very conceptual apparatus.

By contrast, the High Court of Australia refused to allow a similar reformulation in *Victoria Park Racing & Recreation Co Ltd v. Taylor*,¹³ where the plaintiff sought to prevent the defendant from using valuable information that it had obtained, of activities in which the plaintiffs had invested considerable time and money. The plaintiff was the owner of a public facility where horse races took place on a regular basis. The defendant owned the adjacent plot of land and erected a tower on his land so as to overlook the plaintiff's property and from the tower allowed the broadcasting of information about the actual races as they occurred, thereby enabling individuals to bet on the races without actually being present at the facility. In expressly refusing to follow the majority opinion in *INS*, the Court noted that since the interest in question did not fall into any of the well-defined categories recognized by the law, it would not qualify for any form of protection.¹⁴

While courts in Australia and the UK have been reluctant to formulate an independent quasi-proprietary remedy of misappropriation, this does not imply that they are any less concerned than their American counterparts, in protecting the commercial interests of the plaintiffs in question. Their reluctance is thus restricted to the realm of creating novel *proprietary* interests. In so far as they can achieve the same results through existent doctrinal structures, their opposition to the result becomes far less

11. Richard A. Epstein, *International News Service v. Associated Press: Custom and Law as Sources of Property Rights in News*, 78 VA. L. REV. 85 (1992).

12. For a general overview of incrementalism, also referred to as a variant of judicial minimalism, see CASS R. SUNSTEIN, *ONE CASE AT A TIME: JUDICIAL MINIMALISM ON THE SUPREME COURT* (1999). Sunstein makes the argument that a minimalist approach is likely to reduce the deleterious consequences of judicial errors.

13. (1937) 58 C.L.R. 479 (HCA).

14. *Id.* at 509 (*per* Dixon J). The decision in this case has since been re-affirmed by the High Court in more recent cases, see *Moorgate Tobacco Co Ltd v. Phillip Morris Ltd*, (1984) 156 C.L.R. 414 (HCA).

forceful.¹⁵ One area where they have managed to achieve the same relates to the common law cause of passing off.

The tortious doctrine of passing off has traditionally concerned itself with the core element of misrepresentation. In the most basic terms, the cause of action is said to arise when one person sells his own goods under the pretence that they are those of another.¹⁶ The element of misrepresentation has however in recent times, been expansively interpreted to cover situations that would ordinarily have been thought of as falling under the category of misappropriation. This move from misrepresentation to misappropriation is however, very subtle and involves no major reformulations of existing concepts.¹⁷

Every instance of informational misappropriation involves a misrepresentation, though not necessarily vice-versa. Passing off has thus evolved to now cover situations not only where the defendant passes off his goods as those of the plaintiff, but also where the defendant passes off the plaintiff's goods as his own. The latter situation, while materially different, in that it involves the free-riding on the plaintiff's goodwill (i.e., a misappropriation), is no less a misrepresentation (of source) and consequently, common law courts have found little difficulty in extending passing off to cover this subtle variant as well.¹⁸

The distinction between creating a novel tortious remedy for the misappropriation of intangibles and subsuming the factual scenario under the existent form of liability for passing off is more than one of mere nomenclature. It lies in the fact that the former approach effectively results in the creation of a new proprietary entitlement, while the latter merely protects an existent entitlement (i.e., reputation or goodwill) under a modified liability rule. Calabresi and Melamed,¹⁹ in their highly

15. *Id.* In this context, Dixon J's observations that the courts "have not in British jurisdictions thrown the protection of an injunction around all the intangible elements of value, that is value in exchange, which may flow from the exercise by an individual of his powers or resources whether in the organisation of a business or undertaking or in the use of ingenuity, knowledge, skill or labour", are of questionable applicability in the present context.

16. *Perry v. Truefitt*, (1842) 6 Beav. 66, 49 E.R. 749. *See also Warnink v. Townend & Sons Ltd*, [1979] A.C. 731 (HL).

17. For a detailed analysis of this paradigm shift, see Michael Spence, *Passing Off and the Misappropriation of Valuable Intangibles*, 112 L. QUART. REV. 472 (1996).

18. Cases most directly representative of this trend include the common law geographical indication cases: *Bollinger v. Costa Brava Wine Co Ltd*, [1961] 1 W.L.R. 277 (Ch. D); *Taittinger v. Allbev Ltd*, [1994] 4 All E.R. 75 (CA) and those relating to character merchandising: *Mirage Studios v. Counter-Feat Clothing Co Ltd*, [1991] F.S.R. 145; *Hogan v. Koala Dundee Pty Ltd*, (1988) 20 F.C.R. 314.

19. Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972).

influential analysis,²⁰ define a proprietary entitlement as one where the removal of the entitlement by a person from another requires the former to enter into a voluntary transaction with the latter to determine the value of the entitlement.²¹ The state's role is thus ordinarily restricted to intervening in order to restore the entitlement on the basis of the voluntarily pre-determined value. In the case of a liability rule however, a person is entitled to destroy the entitlement of another as long as he is willing to pay an objectively determined amount for it; the distinction being that the amount is determined objectively with the original owner's subjective valuation having little bearing on the computation.²²

A rule safeguarding a claim by premising itself on the validity of a pre-existent distribution and thereby seeking to restore the same, effectively crystallizes the claim into a property right. On the other hand, a rule premised on the harm an activity causes, and seeking to neutralize the same, without basing its normative legitimacy on any distributional pattern, simply does not have this effect. Thus, if A takes something away from B involuntarily; if the rule focuses on the harm B sustains in the taking and forces A to effect a reparation, the situation is materially different from one where the rule forces A to give the thing back to B, even if B has sustained no harm at all (or even benefited from the taking). The latter, a property rule, affirms B's very claim over the thing, while the former, a liability rule, merely focuses on the immediate reality of damage and seeks to remedy it.²³

The difference between the two may appear overly subtle, given that the resource in question is often information, making the concepts of *removal*, *taking*, *restoration* and *destruction*, little more than metaphors. However, it is submitted that at the heart of the distinction lies the fact that in relation to a liability rule, the law focuses more on the nature of the defendant's conduct than on the nature and form of the plaintiff's

20. Over fifteen opinions of American courts have relied on this analysis, including several federal and state appellate decisions.

21. Calabresi & Melamed, *supra* note 19, at 1092.

22. *Id.*

23. For a detailed exposition of the differences between the two regimes and their comparative merits and demerits in economic terms see Louis Kaplow & Steven Shavell, *Property Rules versus Liability Rules: An Economic Analysis*, 109 HARV. L. REV. 713, 757-73 (1996). See also A. Mitchell Polinsky, *Controlling Externalities and Protecting Entitlements: Property Right, Liability Rule and Tax Subsidy Approaches*, 8 J. LEG. STUD. 1 (1979); Robert C. Ellickson, *Alternatives to Zoning: Covenants, Nuisance Rules and Fines as Land Use Controls*, 40 U CHI. L. REV. 681; James E. Krier & Stewart J. Schwab, *Property Rules and Liability Rules: The Cathedral in Another Light*, 70 N.Y.U. L. REV. 440 (1995).

initial entitlement itself, performing a sanctioning role rather than a vindicatory one in relation to the plaintiff's interests.²⁴

Thus, in constructing a common law remedy, courts have the option of making the focus of their analyses, either the conduct of the defendant or the defined interest of the plaintiff. In the realm of informational use, we see common law courts in Australia and the UK favoring the former, in deference to legislatures, which they deem better-equipped to identify a protectable interest and the parameters of such protection. American courts on the other hand, seem to consider it inefficacious to focus solely on the conduct without defining the nature of the interest in question and in so doing, have often created novel proprietary interests.²⁵ The doctrine of cybertrespass, as will become apparent, has evolved as a common law remedy. It thus merits examination whether the doctrine was evolved as a regulatory remedy, sanctioning the conduct of the defendant through an extrapolation of the doctrines of trespass to land and chattel or whether its emphasis lies in the creation of a new proprietary regime in a set of virtual resources.

B. *Tortious Remedies to Safeguard Proprietary Interests: The Case of Trespass*

Tort law in relation to property is said by Cane to perform what is referred to as a 'vindicatory function'; i.e., the function of delineating the boundary between what is owned by one person and what isn't. It is thus supposedly more concerned with the plaintiff's actual interest, which it seeks to protect, than it is with the defendant's conduct.²⁶ Without getting into the debate of what exactly property is, let us assume for the moment, a working understanding that a proprietary interest is one which represents a set of rights and liabilities in relation to a resource. Given this vindicatory function, it is but logical that a tortious doctrine focusing on sanctioning a certain form of conduct in the belief that it protects the

24. Peter Cane defines the vindicatory function as that of demarcating the boundary between "what is mine and what is yours." See PETER CANE, *THE ANATOMY OF TORT LAW* 139 (1997).

25. *Id.* at 1093–98. It is indeed interesting to note that in delineating the factors that are often taken into consideration in choosing between a property and a liability rule for an interest, Calabresi and Melamed list "economic efficiency" as the primary one—involving a determination of the administrative costs involved in enforcing the interest as well as the individual transaction costs that may be incurred in effectuating the realisation of the interest on a regular basis. In this context, reference may be made to Holmes J.'s observations in *E.I. Du Pont de Nemours Powder Co v. Masland*, 244 U.S. 100 (1917), where he seemed to be alluding to the fact that designating an interest as a proprietary one may be for reasons of analytical convenience.

26. CANE, *supra* note 24, at 139.

plaintiff's proprietary interest, in fact serves to create, the very proprietary interest it seeks to protect.²⁷ It remains to be seen how true this is of the tort of trespass, as it is applied to both real property and movables, and of its virtual variant, cybertrespass.

Trespass to real property or land—*trespass quare clausum fregit*, consists in the act of entering upon, remaining on or placing something on another's land without sufficient justification.²⁸ Interestingly, liability for trespass arises independent of any intention or knowledge on the part of the defendant. It is thus no defence for the defendant to plead that he was not aware of the boundaries of another's property, as long as the entry itself was voluntary. Most importantly however, liability arises independent of any proof of damage to the plaintiff's interests (or alternately, damage is presumed to exist in the very act of trespass). This point is critical and raises the immediate question of why this is so. Why is trespass to land actionable *iniuria sine damnum*? The answer to this seems to lie in the value that the law places on the inviolability of real property—an interest that transcends monetary quantification, which a damage condition would necessarily require.²⁹ This interest in inviolability thus lies in protecting the owner's possession from unwanted intrusions (i.e., a privacy interest). The underlying rationale would appear to be the belief that each intrusion operates as an indirect challenge to the plaintiff's *control* over the resource in question, an element critical to establishing an ownership claim.

Moving on now to movables; the tort of trespass to chattels is said to have been committed when one person without lawful justification engages in any act of direct physical interference with goods in the possession of another.³⁰ Obvious cases would thus include misappropriation and willful physical damage. The question that however arises is whether, like its real property counterpart, this tortious action too becomes actionable *per se*, i.e., without any proof of actual damage. In other words, would any unjustified yet nominal physical contact with another's movables amount to an act of actionable trespass, under this head?

27. Something Cane himself seems to concede, *Id.* at 78.

28. R.F.V. HEUSTON & R.A. BUCKLEY, EDS., *SALMOND AND HEUSTON ON THE LAW OF TORTS* 40 (1996).

29. *Id.* at 41. See also PETER CANE, *TORT LAW AND ECONOMIC INTERESTS* 32–33 (1996). As the author observes, 'actionability *per se* is important to the present discussion because it indicates that the tort of trespass protects interests other than economic interests. One of the most important of these interests is privacy.'

30. SALMOND, *supra* note 28, at 94.

Under English common law, the position appears to be that it would. According to Salmond, even an unauthorized touching would be an actionable trespass, since here too the law is concerned with the protection of the owner's privacy (i.e., the inviolability interest).³¹ Fleming however believes that this isn't necessarily the case, since the law is less concerned with the protection of mere *dignitary interests* in relation to movables.³² In this context, Fleming's arguments seem to have more merit, for the following reason—if the rationale underlying the recognition of an inviolability/dignitary interest in a resource is that every nominal intrusion amounts to an affront to the owner's control over it, this is necessarily diluted in the context of movables. Since the chattel is inherently capable of being subjected to *de facto* physical control (i.e., the characteristic of *movability*), there appears little necessity to add an additional layer of *de jure* control in a nominal sense. In the event that such *de facto* control is also interfered with, the issue becomes otiose, since it would immediately raise the issue of actual damage, because the interference would have deprived the owner of actual enjoyment, something a nominal interference would not.

This of course doesn't mean that the law is any less concerned with the inviolability of movable property than it is with the inviolability of land. It however reflects an element of pragmatism—that the law ought to step in only after recourse has been made to the element of self-help, intrinsic to the very idea of movables.

Indeed, American tort law is exceptionally clear on this point. For an action to lie under the tort of trespass to chattel, the law mandates that the owner be dispossessed, that the chattel be impaired in condition, quality or value, that the possessor be deprived of use for a substantial time or that harm be caused to the possessor or a legally protected interest of his.³³ The reason for this is that the law permits an owner to use reasonable force to safeguard his interest in the chattel.³⁴ There appears no reason to believe that the English common law is any different, in authorizing the use of a reasonable and proportional degree of force in self-defence.³⁵

31. *Id.* at 95. Indeed, this is the position of the House of Lords in *Leitch & Co v. Leydon*, [1931] A.C. 90 (HL), where Lord Blanesburgh observed, "The wrong to the appellants in relation to that trespass is constituted whether or not actual damage has resulted therefrom either to the chattel or to themselves." The House of Lords was of course relying on Pollock's treatise on tort law.

32. JOHN G. FLEMING, *THE LAW OF TORTS* 59 (1998).

33. RESTATEMENT (SECOND) OF TORTS § 218 (1965).

34. *Id.* at § 218 cmt. e.

35. SALMOND, *supra* note 28, at 129.

The crucial question however is whether this distinction in the protection of the inviolability interest has any bearing on the vindicatory function of demarcating the boundaries of ownership that the doctrine plays. In this regard, it is submitted that the element of *per se* actionability is of less relevance than that of the strictness of the liability, in terms of the defendant's mental state. If the law is to perform the function of defining the boundaries of a property interest (i.e., vindicatory role) effectively, it becomes critical for it to do the same without any regard for the defendant's reasons for an action, as long as they can be causally attributed to him, i.e., being voluntary in nature. The essence of the vindicatory role thus lies in presuming the existence of the proprietary interest as a matter of fact that operates *in rem*. To take a concrete example; if the law were to define my proprietary interest in my land by holding liable a defendant who jumps onto it, it would make little difference to the contours of my interest to assess if the defendant did the same intending to trespass or knowing that the land was mine. This is because the very act of jumping onto my land challenges my control over it. If the defendant could thus avoid liability by showing that he didn't intend to commit trespass or that he mistakenly believed the land to be his or that of a third party, the law would be focusing on sanctioning his conduct rather than defining my interest and cease to perform an exclusively vindicatory function.

Both forms of trespass, as they stand today require an *intentional interference*.³⁶ This is however different from an independent requirement of intention. As long as the actor acts deliberately, the requirement is satisfied, with no subjective requirement for an intention to actually trespass. The distinction is thus one between a subjectively intended action and an intentional action.³⁷ Thus, a mistake as to the fact of ownership or the legal validity of the same has no bearing on the intentional nature of the act, while it would have had a bearing on an independent requirement of subjective intention; and consequently is inapplicable as a defence to an action for trespass.³⁸ Therefore, the strict nature of liability in a trespass action accounts for its vindicatory function, since it presupposes the legal

36. FLEMING, *supra* note 32, at 59; SALMOND, *supra* note 28, at 41; RESTATEMENT, *supra* note 33, at § 217.

37. For a discussion of this difference, in the unrelated context of contractual intent, see generally David Goddar, *The Myth of Subjectivity*, 7 LEGAL STUD. 263 (1987); Timothy Endicott, *Objectivity, Subjectivity, and Incomplete Agreements*, in OXFORD ESSAYS IN JURISPRUDENCE 151–71 (Jeremy Horder ed., 4th series, 2000).

38. FLEMING, *supra* note 32, at 59; RESTATEMENT (SECOND) OF TORTS § 217 cmt. c (1965).

and factual existence of the proprietary right and sanctions any interference with the same.

One might seek to argue that the threshold requirement of intentionality too, detracts to some extent from the vindicatory function, in that it sets the proprietary protection at a level lower than an absolute one. However, it is submitted that this is an inevitable consequence of the fact that all tort law in any form, ultimately requires the existence of some correlativity between the plaintiff's interest and the defendant's actions.³⁹ In the absence of this correlativity, there would either be no reason to hold a *particular* defendant liable at all or to hold him liable *to the particular plaintiff*. The requirement of intentionality ensures that the conduct in question is legitimately the defendant's, thereby safeguarding the element of correlativity, without which the basis of liability would cease to be tortious.

In situations where the proprietary interest is itself ambiguously defined (i.e., where the defendant would have no reason to suspect the factual or legal existence of a proprietary interest), the *sequitur* of this strict liability is that it effectively crystallizes the proprietary interest. This, it is submitted, is precisely what happened in the context of the doctrine of cybertrespass, which involved modifying the doctrine of trespass to chattels to suit the realities of the virtual world.

C. *The Evolution of Cybertrespass*

This part examines in some detail the doctrinal genesis of cybertrespass. The analysis is categorized into three parts, reflective of both the chronological development of the doctrine and the varied use of the doctrine itself. The first phase involved the move from the tangible to the virtual world and was critical in that it unknowingly set the standard for future expansion by preferring one metaphor to another. The second phase further crystallized the doctrine into an independent proprietary action and saw it being expanded to cover new areas, hitherto unforeseen. The third phase however generated a considerable degree of ambiguity and here one sees pushes in both directions—for a further expansion of the doctrine and for a considered roll-back of the same. Consequently, the present coverage of the doctrine remains somewhat unclear.

39. See generally, ERNEST J. WEINRIB, *THE IDEA OF PRIVATE LAW* ch. 5 (1995).

1. Electronic Trespass: From the Real to the Surreal and the Virtual

While the doctrine of trespass to chattels has existed for quite a while, the first case that tested its applicability to new media was *Thrifty-Tel v. Bezenek*,⁴⁰ a case relating to the misuse of a telephone company's network. In this case, the defendants' son had employed a computer technology to crack the plaintiff company's telephone access and authorization codes, in order to use its network for long distance telephony without paying for the same. Initially, the plaintiff relied on the doctrine of conversion, but encountered the objection that conversion was ordinarily never applied to intangibles, since the action was premised on a dispossession, which often enough, could not be proven in the case of intangibles.⁴¹ The court then decided to consider whether the facts were sufficient to give rise to a cause of action that could accommodate the intangibility element involved and thereupon proceeded to examine the doctrine of trespass to chattels.

Relying on Prosser's observations that trespass to chattels had evolved into the 'little brother' of conversion and that it could arise from a *mere interference or use*, short of a dispossession, the court found the doctrine applicable to the facts of the case.⁴² What seemed to trouble the court however was the fact that the doctrine had hitherto never been applied to anything intangible. The court therefore went to some length to show how the element of tangibility had been relaxed in relation to the doctrine of trespass.⁴³ The problem with its analysis however, was that all the authorities it cited to establish this point dealt with trespass to real property, and not with movables.⁴⁴ As we noted in our previous discussion, the law (American) makes a deliberate distinction between trespasses to movables and immovables, by requiring a tangible harm in the case of the former, but not in the latter. Consequently, it is understandable why an ephemeral intrusion would be actionable as trespass to real property; but it is indeed questionable whether the law ought to recognize the same in the context of movables as well. Nevertheless, the

40. 46 Cal.App.4th 1559, 54 Cal.Rptr.2d 468 (1996).

41. *Id.* at 1565-66.

42. PROSSER AND KEETON ON THE LAW OF TORTS 85-86 (W. Page Keeton ed., 5th ed. 1984).

43. *Thrifty-Tel*, 46 Cal.App.4th at 1567.

44. *Wilson v. Interlake Steel Co.*, (1982) 32 Cal.3d 229, 185 Cal.Rptr. 280, 649 P.2d 922; *Roberts v. Permanente Corp.* (1961) 188 Cal.App.2d 526, 10 Cal.Rptr. 519 (both dealing with dust particles); *Bradley v. American Smelting and Refining Co.* (1985) 104 Wash.2d 677, 709 P.2d 782 (dealing with microscopic airborne particles).

court concluded that 'electronic signals' were 'tangible enough' to constitute trespass.⁴⁵

Surprisingly, the court also side-stepped the entire issue of requiring the plaintiff to show 'actual damage' for the cause of action to arise at all. In its discussion, the court categorically observed that the plaintiff 'presented no evidence of any actual losses'.⁴⁶ One is therefore left wondering why the court's analysis of the doctrine appeared *prima facie* perfunctory. The answer may well lie in the court's perceived need to find some doctrine to overcome the tangibility restriction it encountered in relation to conversion. The doctrine of trespass seemed to provide the best answer. The court should have stopped here and proceeded with caution in maintaining the subtle doctrinal divide that existed between movables and immovables. Instead, in its zeal to find an independent cause of action it conflated the two.

In making the transition from the material to the virtual world of electronic signals, the court in *Thrifty-Tel* assumed that the metaphor of chattels was most appropriate to the situation. The assumption that intangible resources, such as information or electronic signals can be more aptly regulated using legal doctrines governing chattels than through those applicable to land, seemed to be at the root of the court's choice of metaphor. In a sense, had it chosen to analyze the situation in terms of landed interests—that the telephone network itself was more analogous to real property than it was to personal property, in being incapable of actual physical control at all times, the metaphor of trespass to land might have been more suitably employed, avoiding the conceptual confusion that the court seems to have gotten itself into. This problem was only exacerbated when the law came to be applied to the Internet.

This happened the very next year. In *CompuServe v. Cyber Promotions, Inc.*,⁴⁷ an online service provider brought an action against a company that was in the business of sending unsolicited email advertisements, alleging that by doing so through its (i.e., plaintiff's) servers and to its customers, it was committing trespass to chattels. Following from the *Thrifty-Tel* opinion, the court here observed that the requirements for trespass to chattels were much less stringent than those required for a conversion claim and that a substantial interference with possession was not required to establish the former. All the same, the

45. *Thrifty-Tel*, 46 Cal.App.4th at 1567.

46. *Id.* at 1564. All the same, it notes that the defendants' actions resulted in the tying up of the company's system. One wonders whether this line of analysis ought to have been carried a little further to examine whether the 'tying-up' was tantamount to a dispossession or whether it caused any material damage to the system or its resources.

47. 962 F. Supp. 1015 (S.D. Ohio 1997) (hereinafter *CompuServe*).

court appeared conscious of the restriction placed on the doctrine by the requirement of actual damage and that the plaintiff had to show harm to the property or a diminution in its quality, condition or value as a result of the defendant's actions.⁴⁸

On the basis of the plaintiff's allegation, the court found two types of damage to exist. The first was that the multiple email messages occupied a large amount of disk space on the plaintiff's servers and were a drain on their processing power. This, according to the court diminished the value of the equipment *to the plaintiff*, even though there was no physical damage.⁴⁹ The second form of damage, according to the court lay in the fact that since the defendant's emails were directed through the plaintiff's servers at the plaintiff's customers, it had caused several of these customers to complain about the plaintiff's very service. Consequently, the court found this to be an interference with the plaintiff's reputation and goodwill, a legally protected interest, actionable under the doctrine as well.⁵⁰

On the first form of damage, the court's reasoning appears conspicuously flawed. To begin with, the court overcomes the physical tangibility requirement by concluding that electronic signals were sufficiently tangible for the purposes of trespass. Therefore, the routing of electronic mail messages through the plaintiff was a form of physical contact. All the same, the court reasoned that the plaintiff's servers were impaired by their receipt of multiple e-mail messages. But these messages are what the servers are built to handle fundamentally (therefore making the situation materially different from sending smoke onto another's land). What brings about the impairment is not so much the contact itself (i.e., the signals), but the consequence of the contact and the fact that they were unwanted by their intended recipients.

The impairment condition in trespass exists as a physical requirement—i.e., that the contact itself must have directly caused the impairment. In the *CompuServe* case it wasn't the *factum* of the contact that was causing the impairment, but an allied consequence—i.e., not the messages themselves but the unwanted nature of what was contained in the messages. The distinction lies in that a factual-contact requirement is an objective determination (of causality), while a consequence-driven one renders the determination subjective and incompatible with the physical-nature of the requirement. Thus, the plaintiff would have been unlikely to complain, in the event that its customers did indeed derive

48. *Id.* at 1021–23. The court here made reference to § 218 of the Restatement: RESTATEMENT, *supra* note 33, at § 218.

49. *Id.* at 1022.

50. *Id.* at 1023.

value from the messages they received from the defendant. It was thus more the content of the messages, rather than the very sending that the plaintiffs were unhappy about. Apart from this is of course the obvious issue that when the law mandates a diminution in value, it requires the same objectively. If the requirement were merely that the value of the resource *to its owner* be diminished, it would render the very requirement moot, something which the court appears to have overlooked.⁵¹

Coming to the second form of damage found by the court, here too the law appears to require that the interference with a legal interest be a form of physical harm flowing from the initial harm.⁵² Further, it remains open to debate whether the allowance made for harm to good-will/reputation is sufficiently direct, as required by the law.

The court in *CompuServe*, was presented with the problem of adopting a suitable metaphor to develop a regulatory framework dealing with unwanted mass electronic mails, and it chose that of chattels, i.e., movables. While it is true that in a sense, the Internet is composed of innumerable individual computer servers, each of which is the personal property of its owner, it remains possible to analyze the Internet as an independently existent space.⁵³ In deciding to focus on the private ownership of the constituent elements of the Internet, the *CompuServe* court consciously decided to limit its analysis to movables. In so doing however, the court failed to recognize that the law adopts different standards for chattels and landed interests, deriving from their inherent properties. Moved by the relative ease of recognizing the Internet as little more than its movable elements—movables, while at the same time seeking to transpose the legal standard for immovables to it, the court's analysis appears doctrinally flawed.

From another perspective however, the court's reluctance to analyze the Internet as an immovable place may have derived from a genuine concern with the *unregulability* of the Internet as a whole. If the court had headed down the path of analyzing the Internet as a form of realty, it would have had to grapple with the fundamental issue of ownership (i.e., who owns the space in question?) and its incidents (i.e., what are the consequences of owning a space on the Internet? Is it to exclude all oth-

51. The Restatement does however recognise special situations where an interference not affecting the physical condition of the chattel may effectively destroy the value of the chattel to the possessor, rendering it actionable—e.g., where a toothbrush is used by another person or where an intimate piece of clothing is worn by another. These seem to be recognised however as exceptions to the general rule. See RESTATEMENT, *supra* note 33, at § 218 cmt. h.

52. For a detailed discussion, see Burk, *supra* note 4, at 34–36.

53. For an overview of the implications of the same, see Hunter, *supra* note 4; Lemley, *supra* note 4.

ers from entering?). Many of these questions have arisen in relation to the issue of domain names, but in the completely different framework of trademark law.⁵⁴

One of the consequences of adopting a realty-based analysis would have been the implications it has for the 'public forum' doctrine. In its simplest form, the doctrine stipulates that in relation to certain places which have traditionally been used by the public to communicate and exchange ideas and information, the public has certain affirmative rights, privileges and liberties to use the same for such communication and exchange.⁵⁵ In a 1996 case, a United States Supreme Court justice had openly observed that the time may be ripe to consider the implications of extending the public forum doctrine to new communications media.⁵⁶ Consequently, had the court decided to analyze ownership of the Internet as a whole, it would have had to consider directly, some of these controversial implications that such an analysis would have invariably had and which were alluded to by the defendants in the course of their arguments.⁵⁷ In this reading then, the court's choice of metaphor was prompted by a sense of avoidance.

The *CompuServe* court's analysis thus provided a precedent for plaintiffs seeking to find a new cause of action to control unwanted bulk emails.⁵⁸ By focusing on the actual *use* of the individual server, reasoning that electronic signals were physical enough and concluding that the very usage and its subsequent consequences were sufficient damage for the purposes of actionability, the court effectively adapted the common law cause of trespass to chattels to the digital world. By failing to maintain the bright line divide between trespass to realty and chattels that the

54. See generally Victoria Holstein-Childress, *Lex Cyberus: The UDRP As A Gatekeeper To Judicial Resolution Of Competing Rights To Domain Names*, 109 PENN. ST. L. REV. 565 (2004).

55. See *Hague v. CIO*, 307 U.S. 496 (1939).

56. In *Denver Area Education Telecomm. Consortium, Inc. v. FCC*, 518 U.S. 727 (1996), Kennedy J observes:

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 . . . The extent of public entitlement to participate in those means of communication may be changed as technologies change.

See also Noah D. Zatz, *Sidewalks in Cyberspace: Making Space for Public Forums in the Electronic Environment*, 12 HARV. J.L. & TECH. 149 (1998) (discussing the broader implications of such an expansion).

57. Indeed, some of the observations of the *CompuServe* court indicate a general aversion to dealing with issues of Internet regulation. See *CompuServe*, 962 F. Supp. at 1026.

58. See generally, Steven E. Bennett, *Canning Spam: Compuserve, Inc. v. Cyber-Promotions, Inc.*, 32 U. RICH. L. REV. 545 (1998).

law had, for centuries, it was obvious that it would only be a matter of time before other instances necessitated courts to head even further down the slippery slope—effectively rendering the requirements of cybertrespass analogous to those of trespass to land.

Two cases followed the *CompuServe* decision with similar facts and analyses.⁵⁹ In both these cases an Internet service provider had commenced an action against defendants who were sending out bulk emails using the provider's server to the provider's own customers. The courts decided that the operators' conduct amounted to trespass to chattels and granted the providers injunctions, restraining the same. Carrying on from where the *CompuServe* court left off, in both these cases the court took for granted that the use of the provider's network and the resultant harm to goodwill were sufficient *damage* to satisfy the harm requirement in relation to chattels. Indeed, neither court based its conclusions on anything more than the plaintiff's assertions that such damage had been sustained.⁶⁰

It thus became glaringly obvious to anyone that it was only a matter of time before the 'harm' element became little more than a nominal requirement, serving no purpose other than to justify the origins of cybertrespass—as emanating from the doctrine of trespass to chattels. Recent trends seem to corroborate the same. In the recent case of *Tyco International (US), Inc v. Does*,⁶¹ the defendants had loaded the plaintiff's servers with over 30,000 email messages and were restrained from continuing their activities, under the doctrine of trespass to chattels. Interestingly, the court here awarded the plaintiff nominal compensatory damages of \$1. The court based this award on the reasoning that the plaintiff had failed to *demonstrate* or *claim* any loss or damage to its systems as a result of the defendants' actions.⁶² This is indeed surprising. By its own admission, the court seemed to be concluding that it found against the existence of any tangible harm or damage, but it nevertheless proceeded to conclude the cause of action itself to have been made out. Instead of concluding that the lack of harm necessitated only nominal compensation, the court should have found that this fact alone militated against the plaintiff's trespassory claim.

59. *America Online, Inc. v. IMS*, 24 F. Supp. 2d 548 (E.D. Va. 1998) (hereinafter AOL-I); *America Online, Inc. v. LCGM, Inc.*, 46 F. Supp.2d 444 (E.D. Va. 1998) (hereinafter AOL-II). Interestingly, both cases were decided by the same District Court.

60. *AOL-I*, 24 F. Supp.2d at 550; *AOL-II*, 46 F. Supp.2d at 452. It may of course have been determined by the fact that both cases involved motions for summary judgement by the plaintiff.

61. 2003 WL 23374767 (S.D.N.Y.).

62. *Id.* at 3-4.

This case only makes clear the conceptual obfuscation that was imminent in the *CompuServe* court's reasoning. By setting a doctrinally unclear precedent in the early stages of the law's development, the court unknowingly added a taint of legitimacy to the doctrine itself being extended, mutated and applied to factual circumstances it hadn't initially envisaged.

2. From Web Space to Information: Ebay and Register.com

One of the first few areas where one observed the expansion of the doctrine of cybertrespass, following the *CompuServe* case was in relation to actual web-site content. Traditionally, content has always been the subject matter of established intellectual property rights—most notably copyright. However, these rights, including copyright are subject to a plethora of limitations—relating to the subject matter and duration of their coverage.⁶³ In order to ensure that these limitations are not evaded through a mix of contract and property rules by individual actors, American copyright law further recognizes a doctrine known as 'pre-emption'. The doctrine of federal copyright pre-emption, as it is known, mandates that no person is entitled to assert any claim in relation to a right that is the equivalent of an exclusive right conferred by copyright, outside the realm of copyright law itself.⁶⁴ Consequently, for factual compilations or information databases that do not qualify for copyright protection, claims outside of copyright are ordinarily barred; unless such claims assert an 'extra element' that take them beyond the coverage of the ordinary exclusive rights available under copyright.⁶⁵

As a consequence, when the doctrine of cybertrespass came to be pleaded in relation to website content, the first question that arose was whether the claim was necessarily pre-empted by copyright law. In *Ticketmaster Corp v. Tickets.Com Inc.*,⁶⁶ the plaintiff owned a web-site that sold tickets for different events online. For these events, it usually had the exclusive right to sell tickets on the Internet. The defendant was a service that listed events date-wise and where it did not directly sell tickets for the same online, it provided a link to the interior web-page on the plaintiff's site that listed the event with its details and enabled the

63. For instance, copyright is said to subsist only in the expression of an idea and never in the idea itself. Mere facts are similarly not protectable under copyright. Further, to qualify for protection under copyright, a work needs to meet the requirement of originality and in some cases an additional requirement of creativity as well.

64. 17 U.S.C. § 301(a).

65. See generally Schuyler Moore, *Straightening out Copyright Preemption*, 9 U.C.L.A. ENT. L. REV. 201 (2002); Marc S. Williams, *Copyright Preemption: Real-time Dissemination of Sports Scores and Information*, 71 S. CAL. L. REV. 445 (1998).

66. 2000 WL 525390 (C.D. Cal.).

customer to buy the ticket (but from the plaintiff). By clicking on this link, the customer was taken directly into the interior of the plaintiff's web site and did not have to navigate his way all over again when he reached the site. The plaintiff commenced an action against the defendant alleging copyright infringement and among other claims, raised a common law claim for trespass to chattels, since the link was in essence connecting the defendant's site to the plaintiff's. The court however dismissed the trespass claim, finding it to be pre-empted by federal copyright law, since the essence of the action was that the defendant had appropriated (i.e., copied) information from the plaintiff's own page.⁶⁷

In *Ticketmaster*, the court managed to block the trespass claim since the only form of connection (physical, or otherwise) the plaintiff alleged was a hypertext link to its site, which the court in turn reasoned had more to do with the actual content of the site, than the method of contact itself. Had the method of contact or information collection been more elaborate and perceptibly invasive, the court may well have found the claim to be applicable, since it would have then related more to the means deployed in collecting the information than to the consequence of the collection, i.e., copying. This is precisely what happened in the case of *eBay, Inc. v. Bidder's Edge, Inc.*,⁶⁸ where the plaintiff managed to structure the claim as one relating to the very means of information collection and thereby succeeded in downplaying the copying or misappropriation element involved.⁶⁹

The plaintiff in that case, owned and operated an online auction site, which offers sellers the ability to list their items for sale on its site and prospective buyers the ability in turn to search the listings and place bids on items. The item is then sold to the highest bidder, with the transaction taking place directly through the buyer and the seller, with the plaintiff having no involvement in this process.⁷⁰ The defendant in turn operated an auction aggregation website, which offered online auction buyers the facility of searching for items across numerous online auction sites (including eBay) without having to visit each site individually. For this purpose, and to expedite the recovery of information, the defendant site maintained its own searchable database. Information for this database, consisting of the details of the various current bids, was collected by the

67. *Id.* at 4.

68. 100 F. Supp. 2d 1058 (N.D. Cal., 2000).

69. See generally Edward W. Chang, *Bidding on Trespass: Ebay, Inc. v. Bidder's Edge, Inc. and the Abuse of Trespass Theory in Cyberspace-Law*, 29 AIPLA QUART. J. 445 (2001).

70. For a general overview of how the eBay site works, see ADAM COHEN, *THE PERFECT STORE: INSIDE EBAY* (2002).

defendant by deploying 'electronic spiders'. In their simplest form, electronic spiders are computer programs that query other computers over the Internet for large quantities of information;⁷¹ they thus automate the process of information collection. It is important to note that the information itself, is neither confidential (being available to the public which visits the auction site itself) nor proprietary, consisting of purely factual data. Initially, the defendant had sought and obtained permission from the plaintiff to collect this information using its spiders. Subsequently however, negotiations between the parties fell through and the plaintiff proceeded to commence an action against the defendant, alleging that the defendant's continued deployment of spiders to collect information from its site, without its permission and in spite of its communications to the defendant to cease such collections, violated its rights.⁷² Among numerous causes it claimed for, was that of trespass to chattels.

At the district court, the plaintiff seemed to put forth the argument that there were no good reasons for treating websites and Internet servers any different from ordinary realty. Indeed the same argument was to be made later in an *amicus* brief filed in favor of the plaintiff after the district court delivered its opinion. The brief argued that this allowed the owner to internalize the costs connected with the resource itself and enabled him to create various proprietary interests (i.e., easements, licenses, leases, etc.) in relation to the site.⁷³ Surprisingly, the court seemed to accept this theory, at least partially.

Carrying on from the reasoning in *Thrifty-Tel* and *CompuServe*, the court concluded that the electronic signals sent by the defendant onto the plaintiff's site were sufficiently tangible to support the cause of action. It then proceeded to establish that the defendant's activities were unauthorized—both expressly by the communication it had received from the plaintiff and tacitly, by the terms of the site's usage. Acknowledging that the crux of the action lay in showing an intermeddling with the plaintiff's possessory interest, and at the same time conceding that the level of interference required to constitute an intermeddling was uncertain, it concluded

71. Also referred to as software robots, robots, spiders or webcrawlers. In recent times, the shortened word 'bot' is usually used to refer to an electronic spider of the nature described above.

72. It is important to note that the plaintiff's web site contained a set of terms and conditions, one of which stated expressly that the use of robots to copy content from the site without prior permission was prohibited. *eBay*, 100 F. Supp. 2d at 1060.

73. See generally Brief of Amicus Curiae eBay 100 F. Supp.2d at 67. Among those who worked on this brief was Prof. Richard Epstein, a renowned professor in the field of law and economics. For an overview of Epstein's views on the subject, see Epstein, *supra* note 6; Epstein, *supra* note 5, at 818–21.

that the defendant's actions amounted to a *use* of the plaintiff's computer systems, sufficient to constitute an intermeddling for trespass to apply.⁷⁴

Recognizing that the element of damage was crucial for a claim of trespass to chattels to succeed, the court concluded that the defendant's *very use* of the plaintiff's system, however minimal it may have been, used valuable bandwidth and capacity and thereby deprived the plaintiff of using the same at the same time. It further observed that if it were to hold otherwise, it would only encourage other aggregators to send spiders onto the plaintiff's site thereby actually affecting the functioning of the site. The court seems to have taken into consideration the additional element of potential harm as well, in assessing damage.⁷⁵

In a sense, the court's ruling in *eBay* seems to bring down in its entirety, the conceptual divide between trespass to chattels and realty that previous courts had sought to maintain, at least nominally. Its observation that "the law recognizes no such right to use another's personal property"⁷⁶ aptly illustrates this point. As noted earlier, in an action for trespass to chattels, the law's concern is not with the nominal inviolability of the owner's right, since the owner is privileged to use reasonable force to safeguard his asset. Consequently, a mere *use* without any physical harm would not be actionable, unless the resource in question is realty.

It remains conspicuously clear from the court's reasoning that it was moved by the apparent unfairness of the defendant's free-riding on the plaintiff's information and the possible economic effect this might have on the latter's business. It therefore needed to find the defendant's conduct actionable *per se*. One therefore fails to realize why it didn't opt to analyze the case in terms analogous to an action for trespass to land, more so since this doctrine was raised before it as an alternative. This isn't to imply that adopting the trespass to land doctrine would have solved all problems; just that it would have avoided the conceptual conflation that the court's reasoning has given rise to.

The *eBay* court's recognition of an exclusionary right in relation to the plaintiff's compilation of information also had the effect of according proprietary protection to an informational resource for which intellectual property protection had for a while been a controversial subject—databases and compilations. The position of US law since the 1990s has been that mere compilations of information are not protectable under

74. *eBay*, 100 F. Supp.2d at 1070.

75. *Id.* at 1071–72.

76. *Id.* at 1071.

copyright law unless they involve an element of creativity.⁷⁷ Ordinarily, one might have thought that the cause would have been pre-empted by federal copyright law. The court however expressly noted that this was not the case since the trespassory cause of action here focused on the *misuse* of the plaintiff's *physical property* (i.e., its servers) and consequently, consisted of an extra element that ensured its sustainability.⁷⁸

A *sequitur* of the court's reasoning, likening *use* to *harm* is that it renders palpably legitimate uses of a website actionable at the fancy of the website owner. Most web-based search engines today collect information for their databases using electronic spiders, which they periodically send out to retrieve information.⁷⁹ Ordinarily, a spider accessing a web-site is expected to check whether it is authorized to collect information before it actually crawls any deeper. Sometimes however, the spider doesn't carry out this check—either purposively⁸⁰ (as programmed) or owing to a malfunction. In each of these cases, the owner of the website, going by the *eBay* court's reasoning could hold the search engine liable for cybertrespass, even in the absence of any palpable harm.

By placing the onus on a user to verify whether a certain mode of accessing the website was permissible at all, the court was in effect erecting an artificial fence around the website, the crossing of which would give rise to a trespassory claim. As Steve Fisher notes, this changes the fundamental operative paradigm of the Internet. The Internet, ever since its creation, has been premised on a culture of openness—

77. This position is indeed unique to the United States, following the decision of its Supreme Court in *Feist Publications, Inc. v. Rural Telephone Service Co.*, 499 U.S. 340 (1991).

In an *amicus* brief filed by a group of 28 law professors on behalf of the defendant, when the case was taken on appeal to the Ninth Circuit, this argument was pressed again, with the explicit observation that the creation of such a right ought to be the prerogative of a legislative body and not a judicial forum.

78. *eBay*, 100 F. Supp.2d at 1072. For a general overview of the legal issues involved in the proprietary protection of valuable pricing information, see Maureen A. O'Rourke, *Shaping Competition on the Internet: Who Owns Product and Pricing Information?*, 53 VAN. L. REV. 1965 (2000).

79. See Danny Sullivan, *How Search Engines Work*, <http://searchenginewatch.internet.com/webmasters/work.html> (last visited February 10, 2005).

80. As was the case with Bidder's Edge, *eBay*, 100 F. Supp. 2d at 1062. A spider/robot accessing a website to retrieve information ordinarily verifies the command lines of a file called—"robot.txt" before it proceeds any further on a site. The nature of information it is permitted to retrieve and which it is to omit is to be specified therein. Importantly though, the robots.txt process, detailed in a self-regulatory document called the "Robot Exclusion Standard" is not an official standard, nor is it a part of web sites' terms of use and access. Consequently, a non-adherence to the standard, i.e., not making the spider check the text of robots.txt, while contrary to settled best practices, is not illegal or actionable on its own.

where access has been presumed to be the *de facto* rule, with individual actors being given the choice of ‘opting out’ by adopting bright-line exclusionary techniques (such as encryption, passwords, authentication techniques and the like).⁸¹ The court’s reasoning effectively alters this. By creating a ‘presumptive fence’, which a user was now legally obligated to look out for, the default rule was being altered to one of less than complete openness.

The decision in *eBay* all but eliminated the harm requirement in cybertrespass, thereby bringing into question its continued conceptual affiliation with the doctrine of trespass to chattels. Reasoning in almost identical terms was adopted by the court in another decision that followed shortly after *eBay—Register.Com, Inc v. Verio, Inc*⁸² The plaintiff there, Register.com was an Internet domain name registrar, which also offered its customers website creating and hosting facilities. All domain name registrars, were in turn required to provide an online WHOIS database—a searchable database consisting of the names and contact details of all customers who had registered their domain names through the registrar in question. Registrars were also mandated to make this database freely accessible to the public through the Internet. Accordingly, Register.com maintained one such database.⁸³

The defendant, though not a registrar, provided registrants with facilities to develop and host their own websites. It thus competed directly with the plaintiff, in the post-registration market. To enhance its own market, it began an operation which involved downloading a list of newly registered domain names from a central server. Once the names were retrieved for each day, it then deployed a search robot which queried the central server to determine the name of the registrar with whom the domain was registered and then automatically proceeded to query the WHOIS database of the concerned registrar to obtain the contact details of the registrant. The plaintiff was one such registrar queried by the defendant’s robots. Concerned that the defendant was effectively free-riding on its own work, the plaintiff brought an action against Verio, alleging numerous causes including trespass to chattels.⁸⁴

81. Fischer, *supra* note 4, at 168–70. Fischer also provides a detailed analysis of how different electronic robots and spiders operate, how they are deployed by agents on the Internet and technical options that exist to exclude them without resorting to a legal trespassory rule.

82. 126 F. Supp. 2d. 238 (S.D.N.Y., 2000).

83. *Id.* at 241–42.

84. *Id.* at 243. The other causes of action included breach of contract, a claim under the Computer Fraud and Abuse Act and another under the provisions of the Lanham Act for falsely designating origin.

The court's reasoning on the trespassory claim was almost identical to that of the *eBay* court, which it relied on extensively. The court observed that the defendant's use of robots to access the plaintiff's system resulted in a diminution of the latter's system resources—the extent to which was, of course, uncertain. This was the same as saying that the harm lay in the very use, since any use effectively results in some diminution of system resources (the system itself, being of finite capacity).

The court then concluded that a mere showing of possessory interference was sufficient to establish harm and accordingly proceeded to find that the plaintiff had succeeded in establishing the existence of trespass (to chattels).⁸⁵ This makes it unambiguously clear that the court was insistent on adopting a 'trespass to land' standard in its analysis. The reasoning and decision of the district court was unanimously affirmed, on appeal.⁸⁶ The district court's decision however raises several issues, which the appellate court did not examine in any detail.

For one, why didn't the court resort to a land-analogy for websites explicitly, without interpreting the law as it did, to effectively render redundant the chattel-realty divide? We can put aside our speculative inquiry into the reasons for the court's reluctance for later and conclude by noting that the *eBay* and *Register.com* cases had the effect of crystallizing the evolution of a new proprietary remedy on the Internet, in relation to websites; a remedy that related not just to the appropriation of content, but one that related to the very use and access of parts of the Internet.

3. Recognizing The Doctrinal Ambiguity: Hamidi and After

A plain reading of the *eBay* and *Register.com* decisions would lend support to the argument that the courts had all but abandoned the requirement of actual damage in favor of a 'mere use' test of possessory interference. Indeed this is precisely how a few subsequent decisions interpreted these cases as well. In *Oyster Software, Inc v. Forms Processing, Inc*,⁸⁷ the defendant had made use of the plaintiff's trademark name in its metatags, thereby causing search engines to link to the wrong site. In dealing with the plaintiff's claim that the defendant's actions constituted a trespass to chattels, the court concluded in express terms that after *eBay*, in relation to electronic trespass, the law no longer required a showing of substantial interference and that a minimal element of pos-

85. *Id.* at 250.

86. *Register.Com, Inc. v. Verio, Inc.*, 356 F.3d 393 (2d Cir. 2004).

87. 2001 WL 1736382 (N.D. Cal.).

sessory interference or 'use' would suffice to establish the claim.⁸⁸ This interpretation, while eminently problematic conceptually, was nevertheless an accurate restatement of the judicial development of the law. In more recent times however, courts have disputed this interpretation, while at the same time reaffirming the approach in *eBay*, thereby making their own contribution to the existent doctrinal ambiguity.

Ken Hamidi, a former Intel engineer, formed an organization to disseminate views and information critical of Intel's employment and personnel practices. The organization maintained a website and over a period of under two years sent all of Intel's employees six mass emails, criticizing Intel's practices and urging employees to move to another company. Each of these messages was sent to about 35,000 addresses. When Intel tried blocking several of them, Hamidi managed to evade the blockade by using an alternate computer to send them. Intel then sent Hamidi a message asking him to stop sending out mass emails to its employees; but he responded that he had the right to communicate what he felt and continued to send out mass mails. Intel then brought an action against Hamidi and his organization, alleging trespass to chattels and sought an injunction against them.

At the first instance, the court found in favor of Intel, reasoning that trespass to chattels required a showing of 'unauthorized use', which had been established here.⁸⁹ It accordingly issued a permanent injunction restraining the defendants from sending unsolicited emails to the plaintiff's computer systems. The California Court of Appeal affirmed the injunction.⁹⁰ Its reasoning is however of interest. The court undertook a detailed examination of the doctrine of trespass to movables and the manner in which authors and past judicial decisions had interpreted the doctrine. In specific it noted the divergence that existed between the approaches in England and the United States, discussed earlier.⁹¹ The court then reached the startling conclusion that the divergence was irrelevant, once the nature of remedy sought shifted from damages to an injunction. It had thus interpreted the requirement of actual damage, integral to the

88. *Id.* at 13. As the court observed:

While the *eBay* decision could be read to require an interference that was more than negligible (as did the court in *Ticketmaster*), this Court concludes that *eBay*, in fact, imposes no such requirement. Ultimately, the court in that case concluded that the defendant's conduct was sufficient to establish a cause of action for trespass not because the interference was 'substantial' but simply because the defendant's conduct amounted to 'use' of Plaintiff's computer.

89. Intel Corp. v. Hamidi, 1999 WL 450944 (Cal. App. Super.).

90. Intel Corp. v. Hamidi, 114 Cal.Rptr.2d 244 (2001) (Hamidi-II).

91. See *supra* notes 31-39 and accompanying text.

American doctrine as emanating from the law's reluctance to award nominal damages for a trespass to a movable. In the court's reading, once it was made clear that the plaintiff was not seeking damages at all, but an equitable remedy instead (as Intel was), then the issue of actual damage became moot altogether.⁹²

This raises an interesting question—whether the self-help precondition implicit in an action for trespass to chattels has some connection only with a claim for monetary damages. From one perspective, the condition relates to and derives from the nature of the resource in question (i.e., a movable) and therefore has little to do with the nature of remedy sought. From another reading (presumably, the court's), by seeking an injunctive remedy, the plaintiff was conceding that self-help measures hadn't worked to curtail the trespass. Consequently, there was no need to insist on an actual damage requirement since the inadequacy of self-help was central to the very remedy sought. On closer analysis, the injunctive remedy argument actually reinforces the requirement for a showing of actual damage. This is because before being granted injunctive relief, plaintiffs are required to show *actual* or *potential damage* that cannot be compensated by monetary damages. Presumably, a failure to show that a possessory interference had resulted in actual (present) damage would lead to a conclusion against the occurrence of such damage in the future as well, resulting in the denial of the injunction.

Further, a distinction ought to be drawn between situations where the damage is *inherently* uncompensable (the standard for injunctive relief) and those where the damage is *legally* uncompensable (nominal damages—never awarded in a trespassory action). The court seems to have equated the two to derive a general reluctance in the law to award damages for a trespassory action and conclude that since the law prefers self-help to damages wherever possible, so too should it prefer injunctive relief to damages. This conclusion is absurd, since the law bases the award of an injunction on the *incommensurability* of potential damage, while its preference for self-help derives from the presumptive *immateriality* of the damage. The categories of incommensurability and immateriality are indeed distinct—one derives from the impossibility of assessment and the other from the triviality of the assessment.⁹³

What the court was thus implicitly saying was that a claim for an injunction (instead of damages) obviated the need for primary recourse to self-help as an enforcement mechanism. This point merits some discus-

92. *Hamidi-II*, *supra* note 90, at 249.

93. It could of course be argued that when analysed in economic terms, the law's choice is the same in both cases.

sion. At the core of the debate lies the question whether the element of self-help relates more to the nature of remedy ordinarily sought (i.e., damages) than it does to the nature of the resource (i.e., movability) or vice-versa. Richard Epstein seeks to undertake this inquiry by examining whether the fact that the law does not allow a trespassory claim (over chattels) without damage is an indication of its *non-actionability* (i.e., a remedial issue) or alternatively, of the fact that it is *not altogether a trespass*, legally.⁹⁴ If the element of actual damage is indeed a remedial issue (as also its corollary, self-help), it would leave intact the fact that a trespass had actually occurred and thereby enable a court to vindicate the right infringed by modeling an alternative remedy, presumably an equitable one (i.e., an injunction). If on the other hand, the issue were indeed a substantive one—rendering the defendant’s action itself short of trespass, then no novel remedy would be permissible. Epstein seems to conclude that the actual damage issue relates to the *actionability* of the wrong, the wrong itself deriving from the inviolate nature of any proprietary interest.⁹⁵ While the apparent dichotomy between American and English law on the point of actual damage may actually buttress this conclusion, yet, the matter may not be as straight-forward as it is made out to be.

Conceptually, property is generally understood as a bundle of rights, with the right to exclude often characterized as the most important right within that bundle. Indeed, some even argue that the right to exclude is the basis on which all conceptions of property revolve.⁹⁶ In this reading, property is less of a ‘thing’, than it is a right (or collection of rights)—a right to a resource, characterized by a right to exclude others from that resource. In the absence of this exclusionary element (i.e., if the right were merely one of use/access), it would make little sense to talk of property rights, since there would be nothing to distinguish public and private ownership. It is precisely this point that James Harris makes when he notes that the term ‘common property’ is in reality a misnomer in that it makes reference to the complete absence of proprietary institutions over a resource: a form of non-property.⁹⁷

Given this centrality of exclusion to a proprietary interest, a restriction placed on invoking the law to enforce an exclusion, functions as a

94. Epstein, *supra* note 6, at 153. As he observes—“If any invasion, however small, counts as a compromise of the exclusive right of possession, why should there ever be any nonactionable trespasses?”

95. *Id.* at 153.

96. See generally, JAMES E. PENNER, *THE IDEA OF PROPERTY IN LAW* (1997). Penner of course argues that the bundle of rights conception of property is a useless metaphor.

97. J.W. HARRIS, *PROPERTY AND JUSTICE* 109–10 (1996).

fundamental modification of the very interest in question and not just of its allied consequences. This point is critical and merits some elaboration. If we assume the working definition of a proprietary interest to be the right to exclude, *by legal process*, another's unauthorized use of a resource, then a re-postulation of this right that eliminates the element of recourse to legal process ought to be deemed a modification of the very right in question. To this, it might be argued that the proprietary interest lies in the very right to exclude, independent of any legal process. This exclusionary element, however, it is submitted, is not in the nature of a right but of a privilege, in the Hohfeldian sense. In the Hohfeldian analysis, a right represents a legal claim which places another individual or group of individuals under a duty (usually a negative one).⁹⁸ The content of the right derives primarily from its correlative, the duty. A privilege on the other hand, to Hohfeld was characterized by no one else having a right or claim to restrict the activity privileged.⁹⁹ In this sense therefore, a privilege is defined by its positive content. Thus, the owner of a piece of land has the *right* to eject a trespasser and the *privilege* of building a house on his land (characterized by all other individuals having a duty not to enter the land and not having rights to restrict the owner from building the house, respectively).¹⁰⁰

Consequently, the exclusion which the law presumes (in a trespass to chattels action) does not derive from a right or a claim, but rather from the privilege of the owner to control the resource (movable) in a way that effectuates this exclusion. To take a concrete illustration—if a person owns a rubber ball (movable), the law does not grant to him the legal right to exclude all others who may simply touch the ball, i.e., it does not place them under a correlative duty of ensuring that they do not so touch the ball. But what it does however do, is that it enables (i.e., privileges) the owner to use the ball in such a way that he effectively excludes these others from touching it (e.g. by putting it in his pocket) and when he so uses it, it denies these others any rights/claims to prevent him from so using it.

98. Wesley Newcomb Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 23 YALE L.J. 16, 30–32 (1913–14) (Hohfeld-I). Hohfeld went on to apply these constructions (i.e., jural opposites and correlatives) to the analysis of property as well, see Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 26 YALE L.J. 710 (1916–17) (Hohfeld-II).

99. *Id.* at 32. As he observes, “The privilege of entering is the negation of a duty to stay off.”

100. Interestingly, James Harris captures the same distinction in his analysis of property as a combination of (a) open-ended use *privileges*, (b) bounded by a trespassory *right*. The former is defined by its positive content and the latter by the existence of a correlative duty in others. HARRIS, *supra* note 97, at 63.

The law of trespass to chattels thus converts the *right to exclude* into a *privilege of excluding*, and thus effectively modifies the substantive content of the ordinary proprietary interest (i.e., in relation to immovables). In analyzing the difference in standards of review adopted for the actionability of trespass and nuisance claims, Thomas Merrill concludes that a variation in the standard of actionability (for exclusion) is effectively a modification of the substantive property entitlement, given the centrality of exclusion in the discourse.¹⁰¹ A trespass (to land), to be rendered actionable needs little more than proof of actual physical infraction (i.e., a *per se* standard), while an action for nuisance requires a showing by the plaintiff that the action is ‘unreasonable’ and results in ‘significant harm’ to his interests. It thus requires showing both that the harm is beyond a threshold *de minimis* level and that the harm itself is caused by an activity that brings less benefit than the harm it results in (the reasonableness element).¹⁰² The trespass to chattels doctrine lies somewhere on the spectrum between trespass to land and nuisance—in that it isn’t actionable *per se*, but merely requires a showing of some *actual* harm (as opposed to significant or unreasonable harm). In its being a deviation from the *per se* rules of normal trespass, it effectuates a modification of the proprietary interest in question. Consequently, the element of actual harm and its corollary, the presumptive sufficiency of self-help are elements that relate not just to the actionability of the claim in a remedial sense, but to the essence of the very wrong in question.

Epstein seems to concede that this is indeed what happens in relation to nuisance and in its insistence on the harm caused being serious; it thus modifies the very property interest in question.¹⁰³ His analysis concludes that the reason for this rule is a ‘live-and-let live’ rule of reciprocity followed by the common law—that the loss of the action is compensated by a simultaneous release from the actions of all others. He notes however that this is not the same with trespass to chattels (in the electronic context) and the self-help/actual damage rule.¹⁰⁴ His reasoning is that whereas in relation to nuisance, the law gives individuals reciprocal easements over each others’ property rights in the interest of a Pareto improvement, in relation to trespass to chattels, the law keeps intact the

101. Thomas Merrill, *Trespass, Nuisance and the Costs of Determining Property Rights*, 14 J. LEGAL STUD. 13, 19 (1985).

102. *Id.* at 18–19.

103. Epstein, *supra* note 6, at 156. “The property rights in land are redefined precisely because the allocative consequences are positive, and the implicit level of redistribution when all is said and done is zero.”

104. *Id.* at 154–55. For a more elaborate analysis by Richard Epstein of the tort doctrine of nuisance and its utilitarian constraints see Richard A. Epstein, *Nuisance Law: Corrective Justice and Its Utilitarian Constraints*, 8 J. LEG. STUD. 49 (1979).

initial allocation and merely denies injunctive relief. He also notes that there are no similar Pareto improvements to be had from a reciprocal forbearance as there exist for nuisance.¹⁰⁵ As the previous discussion should make clear, the law does in fact recognize reciprocal releases by its conversion of exclusion from a right to a privilege, where it releases individuals from the duty they were correlatively placed under, by ordinary trespass law. Further, there appears little reason to believe that a similar Pareto improvement does not exist in relation to chattels as well—where mere use without harm or deprivation to the owner seems to be mutually beneficial.

Epstein's argument distinguishing actionability and wrongfulness may derive some force from the language used by the Restatement in relation to trespass to chattels. As discussed earlier, § 218 requiring actual harm to the chattel deals with the issue of *liability* for a trespass to a chattel, the actual contours of the trespass being defined in § 217. Interestingly however, the Restatement uses similar language in relation to a private nuisance as well, preferring to speak in terms of *liability* for a private nuisance, rather than enumerating its constituent elements.¹⁰⁶ This makes it amply clear that the distinction between actionability and wrongfulness is not as absolute, for these causes of action.

Going back to our discussion of the *Hamidi* case, the Court of Appeal was thus mistaken in believing that the requirement of self-help/actual damage was irrelevant when the remedy sought was an injunction rather than damages, since it remains integral to the nature of the wrong being sued upon to begin with. To further buttress its arguments, the court however placed nominal reliance on the catena of case-law on cybertrespass that had interpreted the harm element very loosely, to conclude that in the present case too, harm was actually caused by the diminution of system resources¹⁰⁷ (as in *CompuServe*) and by the disruption it caused to the plaintiff's business system, by requiring the recipient employees to 'confront, read, and delete'¹⁰⁸ the multitudinous messages. References to these forms of harm appear to serve little more than a palliative function; in attempting to liken the case at hand to past precedents (which themselves adopt questionable reasoning).

105. *Id.* at 157–58.

106. RESTATEMENT (SECOND) OF TORTS § 822 (1979), which reads, "One is subject to liability for a private nuisance if, but only if . . .," while Restatement, *supra* note 33, at § 218, dealing with trespass to chattels provides, "One who commits a trespass to a chattel is subject to liability to the possessor of the chattel if, but only if . . ." The structural similarity between the two provisions is plain.

107. *Hamidi-II*, *supra* note 90, at 250.

108. *Id.*

Kolkey J, in his short but strongly worded dissent drew attention to the absurdity of the majority's position regarding *actual injury*.¹⁰⁹ For one, he pointed out that it went well beyond the existent law and that it was far too innovative to consider the time expended on reading unwanted email messages a form of injury under the common law. Reiterating the centrality of actual harm to the tortious claim and showing how the previous cases had in fact involved such harm, he then proceeded to show how a modification in the remedy sought (i.e., injunction instead of damages) did not eliminate the need to show actual injury.¹¹⁰

On further appeal to the California Supreme Court, the matter was examined in great detail and the findings of the majority in the Court of Appeal reversed, by a narrow 4–3 majority.¹¹¹ The gist of the majority's reasoning was that the tort of trespass to chattels should not be expanded to encompass a mere electronic communication that neither impaired the system nor interfered with a legally protected interest of the owner. The court further reasoned that the injury, if any, that the plaintiff had sustained in having its employees read the emails sent by the defendant was *purely consequential* and depended more on the content of the message than the message itself—similar to receiving an unpleasant letter by ordinary mail.¹¹² Interestingly however, the court reviewed all the previous lower court decisions that had applied the doctrine of trespass to chattels to the Internet to find liability, and concluded that they were materially different from the case before it, in that the courts there had been shown the existence of actual harm. This affirmation of the open-ended harm interpretation adopted in these decisions, coupled with the court's recognition of the centrality of harm to the claim seems at best inconsistent and at its worst, hypocritical.

The Court thus went on to approve the decision in *CompuServe* and its finding that the use of disk space and processing power was an impairment; the ruling in *eBay* that the threat of future harm if the defendant's activities were not restrained constituted sufficient harm for the action and the decision in *Register.Com* where the court found the existence of harm even when the plaintiff conceded that it was unable to determine the exact nature and extent of the burden the defendant's ac-

109. *Id.* at 258.

110. *Id.* at 260–63. To use his words, “Relaxation of the injury requirement would not merely adapt the tort, but change its nature . . . Dispensing with the requirement of injury to the value, operation, or condition of the chattel, or the possessory interest therein, would extend the tort's scope in a way that loses sight of its purpose.”

111. *Intel Corp, Inc. v. Hamidi*, 30 Cal. 4th 1342 (2003) (hereinafter *Hamidi-III*).

112. *Id.* at 1347.

tivities were placing on its systems.¹¹³ The court found that Intel had suffered no similarly equivalent harm meriting injunctive relief under the doctrine, since the harm it was complaining of was one which had little to do with any of its proprietary interests. Its refusal to find in favour of the plaintiff, while at the same time expressly approving previous cases where the damage requirement had been rendered moot has only added to the existent confusion and ambiguity discussed earlier.

The decision of the court is even more interesting when one considers the fact that it was presented with a completely different alternative, at the very outset. Prof. Richard Epstein had in an *amicus* brief suggested that the court abandon the actual damage requirement of trespass to chattels in favor of a 'trespass to real property' analogy for the Internet.¹¹⁴ The court however refused to adopt this line of reasoning, concluding that the suggestion derived more from an attempt to create Internet metaphors from real-world situations. It proceeded to reason that the creation of an independent inviolability regime for computer servers would have the effect of 'propertizing the Internet' and was something that ought not to be undertaken without sufficient study.¹¹⁵

The court's reasoning that such a propertization would have the effect of generating new costs on the Internet is indeed laudable. Independent of any substantive merits which the Epstein suggestion may or may not have had, it certainly would have provided the area with the much required doctrinal clarity. The court's insistence on analyzing the Internet through its physical media (i.e., computer servers) and generating electronic metaphors to deal with their unauthorized use (i.e., the passage of electrons or robots) only deepens the conceptual confusion inherent in the doctrine of cybertrespass. The court was presented with the opportunity of moving it away from the chattel-analogy, but turned it down. Coupled with its perfunctory approval of the previous line of cases as establishing a meaningful standard for actual harm, it muddles up the area of law even further.

What then should the court have done, ideally? Assuming that the court was genuinely concerned about the implications of creating an open-ended inviolability regime for Internet property as Epstein was suggesting, it could still have made an effort to add some substantive content to the actual harm requirement by laying down an identifiable threshold requirement for the future. By preferring instead to distinguish the present case from previous ones on a largely vacuous factual basis,

113. *Id.* at 1354–55.

114. *Id.* at 1360.

115. *Id.* at 1360–62.

the decision left itself open to being criticized as doing little more than finding an excuse to deny the plaintiffs the remedy they sought. This was precisely what the dissenting opinion of Brown J did, when it accused the majority of expressing an unfounded ‘antipathy toward property rights’.¹¹⁶

In a sense therefore, the California Supreme Court had legitimized the largely subjective and abstract determination of actual harm, of the previous courts as a consequence of its own finding that the facts before it did not disclose the existence of such harm. By thus creating a negative set of circumstances where an action would not be made out (as in the case before it), it presumptively added content (in the sense of a standard) to an equivalent positive set, where the action would lie. In reality however, the positive set never acquired such content. In *School of Visual Arts v. Kuprewicz*,¹¹⁷ a decision that followed shortly after the California Supreme Court’s ruling, the doctrine of cybertrespass was expanded even further. The defendant, a former employee of the plaintiff posted false job-listings on a web site causing users to send numerous emails to the plaintiff’s account, and also forwarded the plaintiffs’ email address to various pornographic websites, which resulted in the plaintiff receiving large volumes of explicit emails. It is important to note that unlike in the *Hamidi* case, the defendant had not directly sent any email to the plaintiffs, but had only facilitated the same by providing the latter’s contact details.¹¹⁸ While it dismissed several of the plaintiff’s claims, the court concluded that trespass to chattels was the only viable cause of action that could be pleaded in the instant case. Concluding that the defendant had ‘caused’ large volumes of unsolicited emails to be sent to the plaintiffs, which had in turn depleted its hard disk space and processing power, the court found the element of harm to have been satisfied. Predictably, the court placed reliance on the *Hamidi* dictum that the action was not sustainable without actual damage, but concluded that this was indeed not the case here since a *prima facie* case of damage had been made out.¹¹⁹

A direct consequence of the *Hamidi* decision was thus that it crystallized the ambiguity and reaffirmed its presence in the realm of

116. *Id.* at 1368. Indeed, it could be argued that Brown J’s opinion went much further than merely showing how the plaintiff had indeed sustained actual harm along the lines of the prior cases. For one, he makes the argument that even a harmless trespass is actionable under the law. Further, the opinion also attempts to show how the plaintiff had sustained damages that ought to be sufficient to satisfy the legal standard, even though prior case is to the contrary—economic loss, a loss in utility and a diminution in subjective value.

117. 771 N.Y.S. 2d 804 (2003).

118. *Id.* at 807.

119. *Id.* at 807–08.

cybertrespass. While some have commended the decision as exhibiting a reasoned reluctance to propertize the Internet,¹²⁰ it nevertheless failed to provide a strong analytical basis for its final conclusion (i.e., approving of the loose *damage* standard evolved by lower courts for chattels while refusing to adopt a realty metaphor)—and is thus in a sense, neither here, nor there.¹²¹

D. *Why Use the Trespass to Chattels Metaphor?*

In developing the doctrine of cybertrespass, courts thus had the option of choosing between the laws of trespass as applied to movables and the alternate version that applied to immovables, for their analysis—and they chose the former. It is important to note that this decision was a conscious one, for they were on two distinct occasions (i.e., *eBay* and *Hamidi*) sought to be persuaded by counsel to adopt an analysis of Internet sites in terms of immovables. What then motivated this choice of metaphor? The choice of metaphor seems additionally intriguing, given the doctrinal gymnastics that courts have played to ensure that the cause of action remained within the realm of trespass to chattels.

In *Hamidi*, the California Supreme Court rejected the realty metaphor, observing that it added little value, since the doctrinal requirement of a physical intrusion (in opposition to a mere intangible one) extended to trespass to land actions as well.¹²² More importantly though, the court justified its choice of metaphor by the simple argument that in the end computers, the communication devices involved, were in reality no different from pre-existent ones, which were all forms of *personal* property. It observed: “The plain fact is that computers, even those making up the Internet, are like such older communications equipment as telephones and fax machines personal property, not realty.”¹²³

120. Pamela Samuelson, *Unsolicited Communications as Trespass?*, 46(10) COMMUN. ACM 15 (2003) (noting that the decision brings much needed balance to the law of trespass as applied to the Internet). Cf. Patty M. DeGaetano, Note, *Intel Corp. v. Hamidi: Private Property, Keep Out—The Unworkable Definition of Injury for a Trespass to Chattels Claim in Cyberspace*, 40 CAL. W. L. REV. 355 (2004) (arguing that the Court ought to have recognized economic damage as sufficient injury).

121. The majority also seemed to have been influenced to some extent, albeit a minimal one, by the implications a finding of liability would have had on the defendant’s First Amendment rights. They expressly noted that the granting of an injunction in the instant case would take the matter out of the realm of private action to that of state action, which would in turn have to satisfy First Amendment restrictions. *Hamidi-III*, 30 Cal. 4th at 1364.

122. *Hamidi-III*, 30 Cal. 4th at 1361. This conclusion is indeed questionable since the very basis on which the doctrine of electronic trespass was evolved by the court in *Thrifty-Tel* was the actionability of intangible intrusions onto immovable property owned by a plaintiff. *Thrifty-Tel*, *supra* note 40; notes 44–45 and accompanying text.

123. *Id.*

In relation to the Internet, it remains a well-established principle that the nature and extent of legal protection accorded to any action depends on the metaphor chosen to analyze the action in question.¹²⁴ Each metaphor thus brings out and highlights certain factual similarities to the metaphorical source and downplays others and in so doing, thus modulates the nature of legal analysis.¹²⁵ This would certainly have been the case with the doctrine of cybertrespass—a metaphor of realty may have meant a radically different regulatory regime for website use and access.

An alternative method of analyzing the choice between the metaphors of chattel and realty is in terms of the *perspective* adopted for the analysis. Orrin Kerr seeks to establish that much of the confusion surrounding the development of Internet law relates to the issue of conflicting *perspectives* adopted for the analysis.¹²⁶ According to this theory, any action on the Internet can be analyzed from either an internal or an external perspective. An internal perspective involves ‘treating the virtual world as if it were real’¹²⁷—i.e., analyzing the Internet in terms of the real world, but on an experiential basis. For instance, to the user of the Internet, an internal perspective would involve the understanding that in accessing a web-site, the user is *being taken* to the webpage involved. An external perspective on the other hand, involves analyzing the Internet (virtual world) not from a superficial or experiential basis, but in concrete real-world terms that involve the physical corporeality of the network and related communication technologies employed.¹²⁸ In this perspective, the user of the Internet never really *visits* a web-page, but merely enters into his computer a set of instructions which allow it to retrieve information and data from another computer on the network, using a specific communications protocol. In our discussion of cybertrespass then, the realty metaphor would represent an internal perspective and the chattel analogy, its external variant.

Now, the external perspective obviously exhibits greater fidelity to the physical reality of what exactly transpires during an Internet com-

124. See A. Michael Froomkin, *The Metaphor is the Key: Cryptography, the Clipper Chip, and the Constitution*, 143 U. PA. L. REV. 709 (1995) (analyzing the constitutionality of encryption regulations). See also Alfred C. Yen, *Western Frontier or Feudal Society? Metaphors and Perceptions of Cyberspace*, 17 BERKELEY TECH. L. J. 1207 (2002) (arguing that it is more prudent to analyze the internet using the metaphor of a feudal society).

125. To take the illustration of encryption—the legal consequences that would invariably follow if courts were to analogise encryption to language would be different from those that would follow if the analogy were to an envelope instead. *Id.* at 884.

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

127. *Id.* at 359.

128. *Id.* at 360.

munication. But this does not necessarily imply that the internal perspective is any less *true*, when adopted as a mode of regulatory analysis. Kerr believes that the selection of perspective ought to depend either on the perspective implicitly suggested by the doctrine being invoked in a situation or on the perspective of the party which the law in question seeks to regulate.¹²⁹

In the realm of cybertrespass however, this does not necessarily explain the judicial preference for the chattel metaphor. For one, there isn't a single doctrine in question—there exist two independent causes of action, each adopting a differing perspective. Consequently, neither doctrine even so much as alludes to a perspective to be adopted. Secondly, it isn't clear who exactly the doctrines are targeted at. This is a logical consequence of the doctrines being proprietary in nature; they thus operate *in rem* (against the world at large), with no clearly defined target. Kerr's analysis thus isn't particularly helpful in identifying the reasons for the courts' adoption of the chattel metaphor in relation to cybertrespass.

The perspective-based analysis may however prove useful in pointing us in the direction of a plausible explanation. As noted previously, the external perspective is significantly closer to the technological reality of what actually happens during an Internet communication. It thus exhibits greater affinity to the physical/corporeal world and becomes less of a metaphor, in terms of abstraction. This intuitive urge to associate property concepts to a tangible entity (i.e., a *res*) is indeed something that property theorists have observed in the past.

In analyzing continental legal systems, scholars have often noted how they often do not have a term equivalent to 'property' as it is understood in the common law tradition. For instance, the German law concept of '*eigentum*', which is often taken to be equivalent to the idea of property, is conspicuous in its limited application to *tangible* property, land or corporeal movables. Given then that tangible property is the paradigmatic case of the very concept of property, classifying an intangible entity as a thing capable of being subjected to property rights is either (a) dependent on identifying a (sufficiently) tangible element for the right or (b) a complete *non sequitur*.¹³⁰ One finds a divergence of opinion among continental European theorists on this issue.

Wolfgang Mincke argues that to justify the broader usage of the term 'property' to cover intangibles, some underlying universal substratum

129. *Id.* at 389–405.

130. James Harris, *Property—Rights in Rem or Wealth?*, in *THEMES IN COMPARATIVE LAW* 51, 52 (Peter Birks & Arianna Pretto, eds., 2002).

needs to be found.¹³¹ On analysis, he concludes that the concept of ‘naked value’ provides this substratum, allowing for the propertization of intangibles in an attempt to generate and exchange the social value derived from them. To him, it is only this substratum that converts what would otherwise be a simple *in personam* right into a proprietary *in rem* one.¹³² According to Mincke therefore, for a property right to exist in an intangible, the tangibility of the resource must be replaced by the fictional element of ‘value’ or marketability. He however concedes that this replacement occurs, not intuitively but for consequentialist reasons.¹³³ Bouckaert however believes that such fictions have little value. Arguing specifically in the context of intellectual property rights, he concludes that the centrality of the tangible *res* to a property discourse necessarily implies that a dilution of the same renders the right non-proprietary, i.e., a personal right rather than a real one.¹³⁴ To him, property conceived of in terms of a real right consists of complete physical control over a resource by a person coupled with a legal rule recognizing this control within the legal system. Consequently, all other rights (in relation to intangibles) are necessarily qualified as ‘partial alienations of this right to complete control.’¹³⁵ In this reading therefore, a property right over an intangible entity is a misnomer, since the element of complete physical control is a legal fiction, not a physical reality. While they undoubtedly disagree over the possibility of a fictional substratum substituting the tangibility element, they both however seem to agree that paradigmatically, all conceptions of property are premised on the existence of a tangible, physically controllable resource.

The intuitive connection between person and thing, on which the tangibility element is premised is thus, often justified as pre-legal.¹³⁶ It is indeed representative of the libertarian conception of rights, character-

131. Wolfgang Mincke, *Property: Assets or Power? Objects or Relations as Substrata of Property Rights*, in *PROPERTY PROBLEMS: FROM GENES TO PENSION FUNDS* 78 (J.W. Harris, ed., 1997).

132. It is important to note that Mincke’s primary concern is with what the common law terms “choses in action” which involve the transferability of contractual debts. It however seems perfectly legitimate to extrapolate his argument to intangibles generally, as Jim Harris does. Harris, *supra* note 130, at 52.

133. As Mincke observes, “We need to be able to transfer obligations. Our economy would come to a halt without that possibility. So we need to model our legal tools according to this need.” Mincke, *supra* note 131, at 83.

134. Boudewijn Bouckaert, *What is Property?*, 13 *HARV. J. L. & PUB. POLICY* 775, 796 (1990).

135. *Id.* at 794.

136. As Harris argues is the case with Bouckaert’s analysis, Harris, *supra* note 130, at 52.

ized by Harris as the ‘domain conception’ of rights.¹³⁷ In this conception, which prominent philosophers such as Nozick subscribe to, individual rights subsist in a personal sphere of action, in turn fenced off by duties. They thus involve the entire sphere of what the individual may do as long as he doesn’t breach the fencing duties. They represent an open-ended set and are impossible to be enumerated in finite terms. Consequently, very often, their legitimacy is determined principally by evaluating whether the individual has breached a fencing duty or not, and if he/she hasn’t, then assuming that the activity is within the rights’ domain.¹³⁸

It is therefore plausible to argue that the court’s decision to adopt the chattel metaphor and analyze the activity in terms of the individual computers constitutive of the Internet rather than in terms of the network itself, created by those very computers is a reflection of the intuitive appeal of the ‘tangibility paradigm’, connected in turn with the domain conception of rights. The intrinsic appeal of a paradigm that enables owner-based physical control over a resource so as to render excludability a factual as opposed to a legal reality, is but obvious. This element is also occasionally referred to as the ‘propertiness of property’¹³⁹—the test of property being whether something can be *taken* from an individual. Consequently, the courts’ readiness to construct their analyses around what they could see, feel and physically control with a greater degree of certainty (i.e., the individual computer or server), seems understandable.

Added to this is of course, the inherent complexity of the law of realty. Had a realty-based metaphor been adopted for Internet trespass, it is conceivable that at least a part of that complexity would have carried over to the Internet, and the courts’ reluctance to deconstruct land law for the Internet may indeed have been another consideration. Indeed, it was precisely the necessity for this complexity that proponents of the realty metaphor for cybertrespass made the basis of their arguments, early on.¹⁴⁰ The systemic complexity characterizing the common law jurisprudence of realty is a rather well documented phenomenon.

Writing in 1904, property lawyer James Hogg noted how the English system of land law was mired in confusion and difficulties that had arisen as a consequence of the fiction of sovereign title to all land, the system of estates (legal and equitable) and rules relating to the transferability of the

137. J.W. Harris, *Human Rights and Mythical Beasts*, 120 L. QUART. REV. 428, 434 (2004).

138. *Id.*

139. Kevin Gray, *Property in Thin Air*, 50 CAMB. L. J. 252, 266 (1991).

140. *See supra* note 73 and accompanying text.

fee simple.¹⁴¹ More recently, Kevin Gray and Susan Gray argue that the common law's idea of real property 'oscillates ambivalently' between behavioral, conceptual and obligational models, which they characterize as those of property as *a fact*, property as *a right* and property as *a responsibility*.¹⁴²

It therefore becomes obvious why courts would have wanted to steer clear of such a complex body of legal rules. If they had indeed analogized websites to land holdings, in applying the common law doctrine of trespass, it would have undoubtedly opened up an entirely independent set of questions, which they would have been forced to answer as well. What rights would an *owner* of a website have? Could an authorized user of a website be characterized as being in *lawful possession* of the site? Would such possession result in the user himself having a right of exclusion? Trivial and comical as they may sound, these questions would have taken the court into the realm of Internet regulation policy—an area not legitimately the subject matter for judicial intervention, much less intervention by *national courts*.

Given these realities and intuitive underpinnings associated with divergent concepts, one begins to make sense of the courts' preference for chattel to realty, for the external perspective to the internal, for the tangible to the ephemeral and ethereal and for the simple to the complex. It remains to be seen what the implications of these choices are for our understanding of 'property' and its continued existence as an independent, morally-significant reality of social existence.

II. CYBERTRESPASS AND THE METAPHOR OF PROPERTY

Having thus analyzed the emergence of cybertrespass as an independent proprietary action, we may now proceed to understand the implications such a doctrine has for our understanding of property and proprietary institutions. As stated earlier, almost all the existent literature on cybertrespass has focused on understanding the consequences this new proprietary doctrine has for the way in which the Internet operates and is regulated. The present part focuses on the converse interaction—the consequences of

141. J.E. Hogg, *The Present Complexity of Land Law, and its Remedy*, 20 L. QUART. REV. 292 (1904).

142. Kevin Gray & Susan Francis Gray, *The Idea of Property in Land*, LAND LAW: THEMES AND PERSPECTIVES 15, 18 (Bright & Dewar, eds., 1998). See also Kevin Gray & Susan Francis Gray, *The Rhetoric of Realty*, in RATIONALIZING PROPERTY, EQUITY AND TRUSTS: ESSAYS IN HONOUR OF EDWARD BURN 1 (Joshua Getzler, ed., 2003), where the authors argue that large parts of real property law consists of little more than rhetoric that stands in for strict logic or deep rationality.

such a doctrine on the meaning of property and on the manner in which property metaphors are deployed as tools of regulation.

A. *What is Property? The Meaning (or
Meaninglessness) of Property*

In his well-known academic piece entitled ‘*Tu-tu*’,¹⁴³ Alf Ross sought to argue that the concept of ownership was a meaningless construct, with no semantic reference at all. Analogizing ownership to the tribal ritual he describes as ‘*tu-tu*’, Ross sought to demonstrate that the concept, much like those of ‘right’ and ‘duty’ was a tool for the technique of presentation, devoid of independent meaning and serving a purely functional purpose.¹⁴⁴ Since the term referred to a set of conditions, which in turn gave rise to another set of consequences, Ross claimed that the term was completely dispensable. Ross was of course, following in the tradition of the Scandinavian Realists, who argued that all legal concepts were hollow constructs, and little more than means of social control, which arose from the psychological influence they came to bear on human minds.¹⁴⁵

While the argument itself appears intuitively appealing, on closer analysis it is unable to conclusively establish the complete redundancy of proprietary concepts. Harris categorizes such arguments as representative of ‘psychological reductionism’ and points out how they disregard the open-texture nature of legal rules, which often requires making reference to a set of values that a concept has come to represent socially.¹⁴⁶ If through practice, an otherwise meaningless concept has come to acquire social significance, does it matter that to a complete outsider, the concept is hollow? In making this argument, Ross was (and indeed the other Scandinavian Realists were) assuming that a rule had to be independently meaningful to qualify as legitimate; an assumption that would question the very roles of custom and tradition in generating legal rules.

While Ross’ argument smacked of a certain lack of cultural sensitivity,¹⁴⁷ it remains a fact that identifying a universally acceptable definition for the concept of property, has been a task that property theorists in the common law tradition have found daunting, since at least the beginning of the 17th century. Nonetheless property analysts can be shown to share

143. Alf Ross, *Tu-Tu*, 70 HARV. L. REV. 812 (1957).

144. *Id.* at 824–25.

145. See A. HAGERSTROM, ENQUIRIES INTO THE NATURE OF LAW AND MORALS (trans. C.D. Broad et al., 1953); Karl Olivecrona, *Legal Language and Reality*, in ESSAYS IN JURISPRUDENCE IN HONOUR OF ROSCOE POUND 151 (R. Newman, ed., 1962).

146. HARRIS, *supra* note 97, at 129–30.

147. For instance his categorical observation that ‘the talk about *tu-tu* is pure nonsense’; Ross, *supra* note 143, at 812.

a core minimum, a consensus in their conceptualization of the subject. It is to be noted that the discussion is restricted to schools of 'property analysis' and by this I exclude the myriad philosophical theories that seek to justify the very institution of property. While these theories undoubtedly shed light on the concept of property itself, they invariably exhibit strong connections to the more general political philosophies that their proponents were advocates for, which in turn largely influenced their analysis.¹⁴⁸

William Blackstone in the mid-18th century defined property as 'that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe.'¹⁴⁹ Blackstone thus conceived of property as an *in rem* right, but attributed to it an absolute status. Scholars have over the years differed in their interpretation of Blackstone's conception of the 'absolute', with some regarding it as an anomaly (since Blackstone himself permitted the law to impose limitations on the right) and yet others as purposive hyperbole.¹⁵⁰ What is however worth noting about Blackstone's definition is its identification and use of the element of exclusivity. To Blackstone it was thus not sufficient that the individual claimed a dominion over the resource, it was crucial that property also entailed the exclusion of other individuals' rights over the same resource.

Blackstone's understanding of property came to form the focus of analysis for generations of positivist scholars including John Austin, Jeremy Bentham and others. The main point of intrigue appeared to lie in Blackstone's conception of 'dominion'. On the face of it, there appeared to be a contradiction, given that the concept of *dominium* in Roman law derived from Roman law's absolutist (*absolute*, understood here in contrast to relative rights to possession) conception of ownership, which the common law had consciously rejected.¹⁵¹ Consequently began the process of identifying the *in rem* rights that together constituted this dominion.

148. This would include the Lockean, Kantian and Hegelian justifications for property as also the theories put forth by Marx, Proudhon and Nozick. For a detailed study of some of these theories, placed specifically in their broader political context, see JEREMY WALDRON, *THE RIGHT TO PRIVATE PROPERTY* (1996); HARRIS, *supra* note 97, at 182–212, 230–246.

149. 2 WILLIAM BLACKSTONE, *COMMENTARIES* *2.

150. See Robert P. Burns, *Blackstone's Theory of the "Absolute" Rights of Property*, 54 *CIN. L. REV.* 67 (1985); Carol M. Rose, *Canon's of Property Talk, or Blackstone's Anxiety*, 108 *YALE L.J.* 601 (1998); Duncan Kennedy, *The Structure of Blackstone's Commentaries*, 28 *BUFF. L. REV.* 205 (1979); HARRIS, *supra* note 97, at 30.

151. See generally Peter Birks, *The Roman Law Concept of Dominium and the Idea of Absolute Ownership*, (1986) *ACTA JURIDICA* 1.

At the turn of the 20th century, Hohfeld developed a novel methodology of understanding legal relations, using what he called ‘jural opposites’ and ‘jural correlatives’.¹⁵² Using a matrix consisting of rights, duties, privileges and a fourth variable (i.e., the no-right), Hohfeld set out to make the case for a consistent model of judicial analysis. In a subsequent work, he applied this methodology to the analysis of *in rem* and *in personam* legal relations—which he termed, ‘multital’ and ‘paucital’ respectively.¹⁵³ The crux of Hohfeld’s thesis in relation to property was that property consisted of a large mix of multital jural relations (i.e., rights, duties, privileges, etc.), not all of which could be mapped at any given point of time.¹⁵⁴

Hohfeld’s model eventually gave rise to what is today known as the ‘bundle of rights’ understanding of property, which grew to be immensely popular among the legal realists of the 1920s and 30s.¹⁵⁵ The bundle conception basically consisted of the idea that property was a bundle of complex jural relations *in rem*. To a very large extent, this bundle conception diluted property of any substantive meaning it may have acquired in legal discourses. Whereas even Blackstone had emphasized on the element of excludability, the bundle metaphor merely recognized the ‘right to exclude’ as one among several rights and privileges accorded by the legal system to an owner. The bundle metaphor however proved to be of significance in functional terms, primarily in determining whether something had been removed from the bundle and was therefore short of full-property;¹⁵⁶ but it could never answer what full property was, at any given point of time.

Penner calls this simple version of the bundle metaphor the ‘disaggregative bundle of rights’ understanding and proceeds to show how it is often used as a palliative for a sense of frustration that develops from the inability to attribute meaningful content to the idea of property.¹⁵⁷ He notes that this has the consequence of including more than is necessary under the term and at the same time diluting it of any

152. Hohfeld-I, *supra* note 98.

153. Hohfeld-II, *supra* note 98.

154. *Id.* at 746.

155. See generally Max Radin, *A Restatement of Hohfeld*, 51 HARV. L. REV. 1141 (1938) (where the author attempts to understand Hohfeld’s analysis from a realist paradigm). While Hohfeld did not use the phrase ‘bundle of rights’, later theorists have invariably tended to associate his views on property with the bundle conception.

156. It has therefore found extensive use by American courts in eminent domain or “takings” cases: see *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979); *Dolan v. City of Tigard*, 512 U.S. 374, 384 (1994).

157. J.E. Penner, *The “Bundle of Rights” Picture of Property*, 43 UCLA L. REV. 711 (1996). For an alternative critique of the bundle approach, see Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773 (2001).

critical significance it may have as a justificatory mechanism.¹⁵⁸ Indeed, the bundle conception had the effect of developing an understanding of property in its purely functional terms, much along the lines of the Scandinavian realists discussed at the beginning of this section. While not in such direct terms, it too has given rise to a sense of skepticism over the meaning of ‘property’, by preferring instead to focus on what property *did* instead.

In parallel with the bundle conception, developed a utilitarian framework of property analysis, which focused on analyzing property in terms of transaction costs and the allocative gains derived from the deployment of the institution itself. Much of the scholarship in this area as also the entire law and economics movement can be traced back to the seminal work of Ronald Coase on transaction costs.¹⁵⁹ Property in this understanding is viewed as little more than a collection of use rights with respect to a resource and one that is capable of achieving allocative efficiency by ensuring the transfer of resources to higher valued uses.¹⁶⁰ While the bundle metaphor represented a form of ‘conceptual realism’, the utilitarian model posits itself as a form of ‘economic realism’—making little effort to understand the institution of property in the form of an *in rem* right.¹⁶¹ This complete neglect by legal economists of the content of property rights, coupled with the growing popularity of law and economics scholarship in recent times, has only served to deepen the skepticism with the prospect of identifying any meaning with the concept of property.

Does this then mean that there is indeed genuine reason to be concerned that ‘property’ is soon becoming a meaningless rhetorical term with little moral or political significance? Thomas Grey seems to believe that this is indeed what is happening and terms the process the ‘disintegration of property’.¹⁶² Arguing that the bundle of rights conception represents a conscious effort to undermine the moral significance of the term, he posits that it is only a matter of time before property ceases to

158. *Id.* at 818–20.

159. R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

160. See Thomas W. Merrill & Henry E. Smith, *What Happened to Property in Law and Economics?*, 111 YALE L.J. 357 (2001) (arguing that Coase was a hyper-realist and discussing some of the ramifications of this neglect).

161. *Id.* For some of the more prominent works in this genre, see Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347 (1967); Armen A. Alchian & Harold Demsetz, *The Property Rights Paradigm*, 33 J. ECON. HIST. 16 (1973); YORAM BARZEL, *ECONOMIC ANALYSIS OF PROPERTY RIGHTS* 3 (1997); Calabresi & Melamed, *supra* note 19.

162. Thomas C. Grey, *The Disintegration of Property*, in NOMOS XXII: PROPERTY 69 (J. Roland Pennock & John W. Chapman eds., 1980).

be a concept of importance in legal and political discourses.¹⁶³ Regardless of whether the bundle and utilitarian conceptions of property have sought to deny property any political significance, there is yet reason to believe that the wave of conceptual vacuity that characterizes property discourses under these heads has had the effect of stimulating new work on the ‘real meaning’ of property. A survey of this work enables the identification of a common minimum conception of property.

This common minimum derives from the centrality of the concept of ‘exclusion’ in property. The exercise of a property right over any resource is fundamentally premised on the ability to exclude some or all other individuals from using the said resource at the same time. This characteristic of ‘exclusivity’ or ‘excludability’ may manifest itself in different forms—it may be absolute or relative (i.e., it could be exercisable by an individual or a group), it may be in the form of a right or a privilege (in the Hohfeldian sense)¹⁶⁴ and it may be *de facto*, *de jure* or a blend of the two (depending on the nature of the resource, whether tangible or intangible). For a right to be categorized as a property right or as proprietary in nature, the element of excludability thus becomes critical.

Attempts to construct property theories without the element of excludability prove to be meaningless rhetoric. Take for instance, the idea of ‘common property’—where everyone is said to have an affirmative right to use the resource, with no one having a right to exclude another. Rhetorically, it is claimed that in such a set-up, everyone has a property right to the resource. In reality however, just the opposite could be stated, and the situation would not be affected in the slightest way, practically speaking.¹⁶⁵ Thus, the proposition ‘no one having a property right’ produces the same outcome as ‘everyone having a property right’, which renders the idea of a property right meaningless. Devoid of the characteristic of excludability, property disintegrates into a meaningless term.

Merrill tracks the uses of the ‘right to exclude’ in property discourses and categorizes them into three—single variable essentialism, multi-variable essentialism and nominalism.¹⁶⁶ Nominalism refers to the school which believes that property does not have any specified content and that its constituent elements keep fluctuating (e.g., the bundle conception). Whereas multivariable essentialism believes that the right to exclude may be necessary but not sufficient to constitute property, the

163. *Id.* at 81.

164. Notes 98–100 and accompanying text.

165. See HARRIS, *supra* note 97, at 111–14, for a discussion of this aspect, which he terms the “logical priority of private property.”

166. Thomas W. Merrill, *Property and the Right to Exclude*, 77 NEB. L. REV. 730 (1998).

single variable version believes that it is both necessary and sufficient for the same. Merrill then proceeds to make a case for single variable essentialism, showing how once the right to exclude is accepted as a part of property, all other 'use' rights which property has come to be associated with (e.g., the rights to use, transfigure, transfer and devise) flow logically from it.¹⁶⁷ While Merrill focuses on the excludability as a right (i.e., the right to exclude), I would however submit that his core thesis remains the same, even when expanded to the general category of excludability, which would in turn cover both the right to exclude and the privilege of excluding.

Merrill mentions both Penner and Harris as being other prominent essentialists, in their reliance on the primacy of excludability in explaining the concept of property.¹⁶⁸ To Penner, the very concept of property depends on the idea that others are to be excluded from a resource.¹⁶⁹ In his analysis, this exclusionary element is not unprincipled, but rather grounded in the actual social use which the owner may put the resource to, once such exclusion is effected.¹⁷⁰ In Harris' model, property is best understood as consisting of an open-ended spectrum of use privileges all of which are bounded by a protective trespassory rule.¹⁷¹ Harris uses the expression 'trespassory' in relation to an exclusionary mechanism and notes that while such a rule is necessary for property, it is of course not sufficient.¹⁷²

There thus seems to be a growing consensus among theorists that *excludability* forms the *sine qua non* of any conception of property. Indeed, this is often taken for granted in a few well-known recent attempts to apply a property-based analysis to issues of regulation.¹⁷³ Identifying property with excludability in relation to a resource, thus has the effect of adding substantive conceptual content to the term. Now, if property is effectively about exclusion, one begins to understand how in a large

167. *Id.* at 740–52.

168. *Id.* at 734–35.

169. PENNER, *supra* note 96, at 74.

170. *Id.*

171. HARRIS, *supra* note 97.

172. *Id.* at 24.

173. For instance, the well-known problem of the "anti-commons," propounded by Michael Heller, is premised on the recognition that a *veto* right, or a right to exclude someone from a resource is effectively a property right. To Heller, anticommons property arises in a situation where a large number of individuals have an exclusionary right over a resource, as a consequence of which the bundling of these rights in order to use the resource becomes prohibitively inefficient, resulting in an under-use of the resource itself. Heller argues that the right to exclude and the privileges of use are fundamental to the concept of property. See Michael Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621, 666 (1998).

number of situations the propertization of a resource disables access to a resource. In the context of tangibles, the exclusion may be *de facto* (e.g., boundaries or fences), but in relation to intangibles, the exclusion becomes *de jure*. Thus, patents and other rights that go by the name intellectual property enable such exclusion through actions for infringement, which they have the dual effect of determining the boundaries of the right in question and rendering the same inviolable.¹⁷⁴

Property is thus inextricably linked to excludability. Consequently, the creation of an exclusionary regime over a resource, complimented by (or grounded in) an open-ended and unbounded use-regime over the same, may appropriately be classified as proprietary in nature. This is precisely the manner in which the genesis of cybertrespass has had the effect of creating or defining *new* property on the Internet. To this, the obvious objection may indeed be that this may be possible when the resource (or the *res*) is clearly defined (i.e., tangible), not when it is transient or ephemeral like the Internet. Two points ought to be given consideration when this objection is raised.

The first is the basic point that discussions of property have for long transcended identifying the concept with ‘things’ to understanding it as consisting of rights over or in relation to things.¹⁷⁵ The second is the point that in relation to intangibles, it is the legal recognition and enforcement of a proprietary right that has the effect of defining the resource with precision in relation to which the right subsists. The proprietary resource thus comes into existence *de jure* rather than *de facto*. I use the phrase ‘proprietary resource’ here to signify an entity subject to the exclusionary regime. In the tangible world, the resource is first identified with a fair degree of precision (*de facto*) and the exclusionary claim is then exercised over it. For intangibles however, very often the exclusion comes first, and then the (intended and unintended) consequences of the exclusion are closely examined to identify the resources, to which access is effectively prohibited. Apt instances would be the *eBay* and *International News Services* cases discussed earlier.¹⁷⁶ Since this *de jure* process is more often than not *conduct-based*—exclusion marginally precedes resource identification, since the impermissible resource-use

174. See generally Edmund Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265 (1977); Robert P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839 (1990).

175. Bruce Ackerman identifies this as the layman’s conception of property: BRUCE A. ACKERMAN, *PRIVATE PROPERTY AND THE CONSTITUTION* (1977).

176. See *eBay* 100 F. Supp. 2d 1058 (N.D. Cal. 2000), in relation to which the argument has often been made that the case created a new property right over the auctioneer’s information, by restricting electronic spider access to the same and *INS*, where the court admitted to creating *quasi-property* over commercially valuable information.

(that the exclusion works to prohibit) is often an element of a broader legally impermissible form of conduct. For example, accessing is often an element of copying which is the conduct regulated.¹⁷⁷

To sum up, *excludability* provides property with its core content and exclusionary remedies effectuate the creation of new property rights over resources. This is precisely how the trespassory remedy of cybertrespass operates. As an extension of trespass to chattels, it regulates harmful conduct that impacts a chattel and in so doing enables an owner to exclude others from the same. However, given the nature of the Internet, the tangible chattel isn't the only resource from which others come to be effectively excluded. The multidimensional nature of the Internet effects an exclusion from more than just one resource and this is where the implications of the same deserve closer analysis, which courts have thus far seemed reluctant to do.

B. Property: Of Metaphor and Reality

Having thus concluded that the element of 'excludability' remains at the centre of property, this section examines how excludability operates in relation to different resources. Why ought a regime of excludability (i.e., property rights) be created in relation to a resource? For tangible resources, it is generally the case that excludability becomes a prerequisite for usage. This excludability need not be by an individual, but may be by a finite number of individuals. Consider the following illustration—A is in possession of a cup. Now if A wants to use the cup in his possession, it would be physically impossible for him to do so, if B or any other individual were either in physical possession of the cup or using it. Consequently, for A to make effective use of the cup, excluding all others from it, becomes a physical necessity. The same is the case with any other tangible resource. As the size of the resource increases, the only difference becomes the number of individuals that can use the resource, with all others having to be physically excluded again (e.g., while land or a house can house a large number of people, it certainly cannot house individuals up to an infinite number). This characteristic of the resource is referred to as its 'rivalrousness': that multiple (simultaneous) uses (beyond a certain number) of necessity become rival and mutually incompatible.¹⁷⁸

When we move from the tangible to the intangible world however, things become different. Take the case of informational goods. The us-

177. There may indeed be cases where the *de jure* identification is done legislatively—in which case, the regulation is not conduct-driven. But these are very rare.

178. Boyle, *supra* note 3, at 33, 42.

age of information resources, is far from being rival. A single piece of information may be used by an infinite number of individuals simultaneously at any given point of time. Resources such as these are said to be 'non-rivalrous' in character; i.e., multiple and simultaneous usage is not physically rival or incompatible.¹⁷⁹ The Internet represents a non-informational intangible resource. Appropriate analogies would therefore be air or radio waves. The Internet is therefore just as non-rival physically as informational resources.

Indeed, it may in fact be plausible to argue that the Internet exhibits a form of 'negative rivalrousness'. In the context of informational goods, an argument is often made, that though they are physically non-rival, they nevertheless remain rival in relation to their value. In other words, the multiple (simultaneous or not) use of the resource has the effect of depleting the resource of its value, in cases where such value derives from the reduced availability or scarcity of the resource. The Internet on the other hand, much like other communication media, derives its value from its increased usage. It exhibits what economists refer to in relation to communications media as a network effect. A network effect occurs in a situation where the value of a service or medium to its users depends on the number of individuals already using the said service or medium.¹⁸⁰ The Internet, being little more than a network of individual end-users' computers, thus exhibits a classical network effect. Increased usage of the resource here, thus enhances its value rather than deplete it. Rivalrousness is thus not just physically non-existent, but conceptually opposed to the basis on which the Internet functions.

Thus, for tangible resources, the excludability is a product of physical necessity. In the case of intangibles (informational and non-informational resources), it derives from an instrumental necessity—the belief that excludability adds (and preserves) value. Given then that intangibles are not inherently amenable to a proprietary regime, excludability comes to operate *de jure* not *de facto*. In other words, the excludability regime is (artificially) imposed by the law, for instrumental reasons. Actual exclusion can never factually be achieved, except by recourse to the law. Whereas, by using my cup I can exclude the rest of the world from using it, I cannot so exclude even my neighbor from reading his copy of my favorite novel, while I do so. Property in relation to intangibles is therefore

179. *Id.* See also LESSIG, *supra* note 1, at 94–95.

180. See Michael L. Katz & Carl Shapiro, *Network Externalities, Competition and Compatibility*, 75 AM. ECON. REV. 424 (1985); Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479 (1998); see generally, OZ SHY, *THE ECONOMICS OF NETWORK INDUSTRIES* (2001).

an instrumental creation and derives its justification not from the nature of the resource, but from the consequences of the counter-factual.

Since there is little intrinsically proprietary about intangibles, 'propertiness' (i.e., excludability) is a creation of the law for instrumental reasons. This imposition of 'propertiness' is done through the use of metaphors, which transplant individual elements of property concepts from the tangible world to the intangible sphere. Thus, intangible equivalents for the conceptual elements of boundaries, physical control, possession and the like are created in this process. If property is indeed about exclusion, then does the instrumental use of the property concept merely in order to ensure such excludability, have the effect of diluting property of its moral significance?

Kevin Gray seems to believe that the metaphorical application of property concepts to new resources to effectuate varying degrees of excludability has the effect of rendering property a vacant concept—an illusion or worse still, a fraud.¹⁸¹ While conceding that excludability lies at the core of property, Gray argues that the classification of resources into excludable and non-excludable for physical, legal and moral reasons exhibits little coherence and has more to do with the broader power-relations that ensue from such excludability.¹⁸²

Indeed, the use of metaphorical reasoning to propertize certain resources may at times be hard to distinguish from situations where an excludability regime is introduced for *deontological* as opposed to *instrumental* reasons. This is possibly the reason for a considerable amount of confusion relating to the idea of people 'owning their bodies'.¹⁸³ A trespassory (i.e., excludability) regime here operates to safeguard an individual's dignitary (or privacy) interest in controlling his or her own body. The mere existence of this trespassory regime however, does not render the nature of the exclusionary right, proprietary. If property were little more than a synonym for excludability, there might indeed be a strong case for recognizing one's body as one's property, but property is more than that.

While excludability is critical to property, the excludability is *for reasons* that are independent of the subject to which it is related. Thus in relation to tangibles, the existence of property rights (i.e., excludability) is to enable usage of the resource and in relation to informational goods, it is in order to preserve the value of the resource remaining scarce (and thereby capture the positive externalities associated with it). In this read-

181. Gray, *supra* note 139, at 252.

182. *Id.* at 295–307.

183. See Stephen R. Munzer, *Human Dignity and Property Rights in Body Parts*, in PROPERTY PROBLEMS: FROM GENES TO PENSION FUNDS 25 (J.W. Harris ed., 1997); J.W. Harris, *Who Owns my Body?*, 16 OXFORD J. LEG. STUD. 55 (1996).

ing therefore, all property is instrumental—excludability for some purpose.¹⁸⁴ This explains why the notion of property in one's body is flawed for, here the exclusion is a function of the object of the regime (i.e., the body) and not for objectively instrumental reasons. It also aptly illustrates that in applying property metaphors to a resource, it becomes critical to understand the reasons for doing the same.

In discussing the application of the excludability metaphor to property, Gray uses the decision of the High Court of Australia in *Victoria Park Racing*¹⁸⁵ to understand the consequences of propertization. As noted previously, the majority in that decision refused to award the plaintiff an exclusionary remedy, arguing that to do the same would be to recognize in the plaintiff a 'property' or 'quasi-property' right in a spectacle. Gray argues that in so doing, the court was recognizing that certain resources were incapable being subjected to an excludability regime for physical, legal or moral reasons.¹⁸⁶ This is possibly just another way of saying that what the court was doing was examining whether the instrumental reasons for imposing an excludability framework over the resource were stronger than the physical, legal or moral reasons that existed for not doing so. The court in *Victoria Park* answered the question in the negative, while the American courts seem to have answered it in the affirmative, in relation to cybertrespass.

The obvious next line of inquiry then becomes identifying the possible instrumental reason(s) the American courts might have had in mind while paving the way for the application of the property metaphor to the Internet. In this context, it would be apposite to make reference to an important observation Gray makes in relation to property. Gray argues that property is in the end, all about control over access to a resource.¹⁸⁷ In this reading, the element of excludability in property, enables an owner to control access to a resource and in situations where a court wants to accord *de jure* recognition to *de facto* control or alternatively, where it deems it appropriate to introduce such control *de jure*, it sanctions the use of a property metaphor. Gray's use of the word 'control' is indeed interesting, for it takes us into the important philosophical distinction between property and sovereignty that scholars have grappled with for some time now.

184. This understanding of property tracks Penner's version as well, where he observes that property is a right to exclude grounded in the interest individuals have to use the thing from which others are so excluded. Penner, *supra* note 96, at 71.

185. *Victoria Park Racing*, (1937) 58 C.L.R. 479 (HCA).

186. Gray, *supra* note 139, at 269.

187. *Id.* at 292.

Associating property with control is indeed nothing novel. Blackstone sought to do precisely that, when he used the phrase 'sole and despotic dominion'.¹⁸⁸ But control however is not unique to the idea of *dominion*. Dominion is indeed a proprietary concept, deriving from the Roman concept of *dominium*, which in turn meant 'lordship' in the sense of an ultimate right to claim the possession and enjoyment of a thing.¹⁸⁹ This idea is to be contrasted with the Roman law understanding of *imperium*—a public law concept that roughly translates into the modern conception of sovereign power.¹⁹⁰ A critical distinction is thus to be made between property and sovereignty.

In a well-known lecture delivered in 1927, the philosopher Morris Cohen sought to adopt a realist position and show that the increased accumulation of wealth and property at the time was resulting in a conflation of the two categories of *dominium* and *imperium*, rendering the conceptual divide artificial.¹⁹¹ Arguing that property consisted in excludability, Cohen shows how the accumulation of large amounts of private property by individuals and corporations enables them to exercise a large amount of control over the lives of other individuals; not just by regulating resource access, but also by being in a position to provide services that had hitherto been within the domain of the state. While not necessarily objectionable for its own sake, Cohen persuasively establishes that there may indeed be a case for the need to examine the implications of this conflation, given that sovereignty requires the exercise of power with the objective of human welfare, while property often works on considerations of economic efficiency and other market criteria.¹⁹² The gist of Cohen's argument is that property is moving from being an exercise of a right to an exercise of a power (in the Hohfeldian sense) and this point is indeed well taken.

There thus appears to be very little in choosing between property and sovereignty as concepts, except that the former is in theory from the realm of private law and the latter of public law. However, this distinction is far from being water-tight and property can come to be characterized as sovereignty in certain factual situations (e.g., communal

188. BLACKSTONE, *supra* note 149.

189. Joshua Getzler, *Roman Ideas of Land Ownership*, in *LAND LAW: THEMES AND PERSPECTIVES* 82–83 (J. Dewar & S. Bright eds., 1998).

190. See generally David Johnston, *The General Influence of Roman Institutions of State and Public Law*, in *THE CIVILIAN TRADITION AND SCOTS LAW: ABERDEEN QUINCENTENARY ESSAYS* 91–94 (D.L. Carey Miller & R. Zimmermann eds., 1997).

191. Morris R. Cohen, *Property and Sovereignty*, 13 *CORNELL L.Q.* 8 (1927).

192. *Id.* at 29–30.

property) and sovereignty as property at other times.¹⁹³ Again, it is quite possible that the distinction has very little to do with the philosophical basis of the divide and is more a matter of convenience. Property is thus capable of being viewed as the delegated exercise of sovereign control, in relation to a resource or a set of resources.

A private law concept, property is thus capable of being deployed to achieve a public law purpose—regulation, ordinarily thought to be within the domain of sovereignty. By regulation here is of course meant the entire process of governance, the power to regulate individual behavior in so far as it relates to a certain resource. Having identified property as being a term of largely instrumental significance, its use as a mechanism of governance represents an additional instrumental purpose for which its excludability framework may be deployed. This process is however not without its own set of problems and these problems relate not to the conceptual conflation itself, but to the consequences of the delegated or decentralized governance.

For quite some time now, the Internet has been considered by many to be a medium incapable of being subjected to regulatory rules.¹⁹⁴ Indeed, some have even sought to characterize the Internet as being inherently ‘unregulable’. Many reasons are responsible for this, but two of the rather well-known ones are worth mentioning here.

The first is the fact that the Internet is a trans-national medium. Traditional methods of regulation involve demarcating spaces territorially and permitting individual nation states (or their units) to govern activities within each space so allotted to it. The inability of the Internet to be subjected to divisions analogous to those in the territorial sphere has presented courts and legislatures with innumerable problems, in defining the concept of ‘jurisdiction’ on the Internet. Innumerable theoretical approaches have been adopted to circumvent the ‘boundary-lessness’ of the Internet, with varying degrees of success.¹⁹⁵ The second reason relates to the very architecture of the Internet. The Internet (or the worldwide web)

193. See Joseph Singer, *Sovereignty and Property*, 86 NW. U. L. REV. 1 (1991) (observing how American courts use the distinction to their advantage in relation to American Indian land cases).

194. See David R. Johnson & David Post, *Law and Borders—The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367 (1996); David G. Post, *Governing Cyberspace*, 43 WAYNE L. REV. 155 (1996); Jack L. Goldsmith, *Against Cyberanarchy*, 65 U. CHI. L. REV. 1199 (1998); John T. Delacourt, *The International Impact of Internet Regulation*, 38 HARV. J. INT’L L. 207 (1997). See also Neil Weinstock Netanel, *Cyberspace Self-governance: A Skeptical View from Liberal Democratic Theory*, 88 CAL. L. REV. 395 (2000) (arguing that self-governance mechanisms ultimately prove to be inadequate without adequate government backing).

195. Michael Geist, *Is There a There There? Toward Great Certainty for Internet Jurisdiction*, 16 BERKELEY TECH. L. J. ¶ 5 (2001).

is a product of different layers of protocols, each of which consists of software code. Consequently, a modification or variation in this code results in a change in the way the Internet works. This code is obviously written by the individual end users whose computers constitute the Internet and is in a sense, private. The *sequitur* of this is that any legal rule can technologically be circumvented or overridden by a modification in the code of the Internet. The commonplace rules of privacy, access, free speech, sovereignty and the like are all amenable to being rendered redundant through modifications in the very architecture of the Internet.¹⁹⁶

The complexity of the Internet therefore presents problems for the real world rules of spatial regulation. Using the property metaphor instrumentally here, to create a form of delegated sovereignty, is one approach to overcoming a large number of these problems. Since control is now effectively decentralized and distributed, its exercise becomes much more effective. Administrators of individual web sites and servers can control the access to and use of resources there. The governing law effectively becomes whatever the code on the website requires. Regulation is thus privatized.

By creating a novel exclusionary remedy for the Internet, in the nature of cybertrespass, American courts were thus deploying the property metaphor as a regulatory tool. Implicit however, in this privatization of control and governance was the belief that a decentralized mechanism of private regulation would produce the same outcomes as mechanisms of state regulation would, in the real world. In a sense therefore, this is little more than the same theoretical framework Adam Smith proposed in his study of wealth maximization where he argued that individuals acting in their self-interest effectively enhanced societal interest.¹⁹⁷

Regardless of whether Adam Smith was right or not at a general level, we still need to ask the question whether the privatization of Internet regulation through property metaphors is without its share of problems. What sets the Internet apart however, is that while it certainly

196. LAWRENCE LESSIG, *CODE AND OTHER LAWS OF CYBERSPACE* (1999). See also David G. Post, *What Larry Doesn't Get: Code, Law, and Liberty in Cyberspace*, 52 *STAN. L. REV.* 1439 (2000); Mark S. Nadel, *Computer Code vs. Legal Code: Setting the Rules in Cyberspace*, 52 *FED. COMM. L.J.* 821 (2000).

197. See 4 ADAM SMITH, *AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS* ch. 2 (R.H. Campbell et al. eds., 1976), where he observes—"Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of the society, which he has in view. But the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment which is most advantageous to the society."

is a forum for commerce and a market for economic exchanges, it remains foremost, a *medium of communication*.

Peter Huber argues that governmental regulation of the Internet ought to be abolished and instead replaced with a system of rules that evolve through market processes and the common law method.¹⁹⁸ Huber argues that governmental regulation is inefficient and unproductive, while privatized regulatory strategies (through zoning and private property rights) results in a more robust and efficient Internet, owing to competition.¹⁹⁹ Huber would therefore find the instrumental use of the property metaphor in cybertrespass for regulatory purposes to best fit his hypothesis and his case for common law based private regulation of the Internet.

Apart from the fact that Huber does not examine in detail the substantive implications of common law doctrine for the Internet,²⁰⁰ he also does not seem to address himself sufficiently to the fact that private law based regulation very often suffers from the disadvantage of not being equipped with the public interest safeguards that public law entails. Public law attempts to regulate the interaction between the individual and the state. Thus, while it grants the state the power to control the behaviour and activities of individuals, it balances the same by in turn granting individuals—(a) a set of parameters against which to measure the legality of government action (primarily revolving around the criterion of public interest) and (b) a set of affirmative rights with which to safeguard their own liberty and autonomy (e.g., equality, free speech, privacy, etc.).

When regulation moves from the domain of public law to private law, while the power structure is transplanted from the state to private actors, the checks and balances built into the public sphere are often lost. Public interest no longer remains at the forefront of the exercise of power/control, nor need it be, legally speaking. Similarly, individual rights such as free speech come to be legitimately overridden by proprietary use-privileges. Thus, if the owner of a website were to make accessing its content contingent on providing some form of personal information or refraining from saying some things, individual users would be unable to argue that such a regulation were antithetical to public interest, or more importantly, that it violated their privacy and free speech rights, as they might have been able to, in the context of state regulation. Given that the Internet is in the end a communications medium, a decentralized private system of regulation

198. PETER HUBER, *LAW AND DISORDER IN CYBERSPACE: ABOLISH THE FCC AND LET COMMON LAW RULE THE TELECOSM* (1997).

199. *Id.* at 7–8, 71–77.

200. See Tom W. Bell, *The Common Law in Cyberspace*, 97 MICH. L. REV. 1746 (1999).

would have the direct effect of allowing free expression rights to be overridden by property rights. Now, it could be argued that since a property right is effective only when it is recognized and enforced by the state, and consequently, the entry of the state into this process would enable individuals to assert their rights indirectly. This was indeed attempted on two separate occasions in relation to cybertrespass.

In *CompuServe*, the defendants asserted that though the plaintiff was a private actor, since it has a large quantum of control over a communications medium, it could be subject to First Amendment restrictions that enabled the property right to be overridden.²⁰¹ The court however rejected this claim, arguing that it was up to the government to introduce such a balance and that the First Amendment could be asserted directly, only if the plaintiff was shown to be a state actor. In *Hamidi*, the defendant made a similar assertion, arguing that the enforcement of a property claim by a court amounted to state action that was in turn subject to First Amendment restrictions.²⁰² While refusing to examine this claim in detail since it had held for the defendant on other grounds, the court nevertheless went on to conclude that when the property right itself was sought to be judicially enforced, it involved a state action that was subject to First Amendment restrictions. On the other hand, were the property right to be privately enforced (by the owner), no such restrictions would come into play.²⁰³ It thus is clear that common law proprietary doctrines do not sufficiently account for public interest imperatives and consequently, when they are used instrumentally for public law purposes (i.e., regulation), it has the effect of creating a subtle imbalance.

In this reading the deployment of the property metaphor in relation to the Internet is done for instrumental purposes—to decentralize and privatize control and regulation. While the instrumentalism itself may be efficient, it may however prove to be problematic in shifting our understanding of the Internet from one of a freely accessible medium of communication to a rigidly controlled proprietary resource.

C. *Resource or Medium: The Architecture of the Internet*

If property in general is really about power and control and in its application to the Internet, attempts to create a privatized regulatory structure, as we have concluded, there may yet be problems with this

201. See *CompuServe*, 962 F. Supp. at 1026. Under American law, the general position is that where a private actor exercises control over a communications medium, the First Amendment enables the government to enact legislation enabling access, in spite of the private actor's property rights. See, *Turner Broadcasting Systems, Inc. v. FCC*, 512 US 622 (1994).

202. *Hamidi-III*, 30 Cal. 4th 1342 at 1364.

203. *Id.*

instrumental approach. The problems are however not those that derive from the process of propertization of the Internet generally, but those that are a consequence of the method through which such propertization is achieved, viz., the common law approach and the doctrine of cyber-trespass.

As mentioned previously, the common law effects a creation of property rights through a conduct-based regulatory mechanism.²⁰⁴ This involves the use of tort law, to define a category of impermissible activities. In relation to a proprietary right however, these impermissible activities invariably relate to a resource or an object (i.e., the *res*). The rights in the object are defined in opposition to the range of impermissible activities in relation to the same object that an individual (the owner) is allowed to enjoy by recourse to the law. To illustrate this point, consider the case of *Victoria Park Racing*²⁰⁵ discussed earlier and assume for a moment that the court had in fact found for the plaintiff. The court began its approach by considering the nature of the activity that the defendant had undertaken. If the court had found the same to be impermissible (for unfair competition or other reasons) and made a declaration to the effect that 'the commercial exploitation of another's investment and its attributes was impermissible', it would have served to create a property right in such an investment and its attributes (the object), but by *excluding* the defendant from the same. In other words, in the common law method of fashioning a property right, conduct comes first and the object of the proprietary protection only thereafter and solely in relation to such conduct.

The obvious consequence of the common law's emphasis on conduct in this process, is a relative neglect of the perceived need to define the object of such protection (i.e., the resource). This is of course understandable, given that traditionally, the common law only dealt with tangible entities, with clearly defined boundaries, in relation to which such definition would have proven redundant and superfluous.²⁰⁶ But once the process moved from tangible entities to intangibles, the effects of this neglect began to manifest itself. It is indeed arguable that one of the reasons for the court's reluctance to find for the plaintiff in *Victoria*

204. See note 176 and accompanying text.

205. *Victoria Park Racing & Recreation Co Ltd v. Taylor*, (1937) 58 C.L.R. 479 (HCA).

206. For example, in an action for trespass to one's horse, it would have been utterly meaningless to have required the law to define the object (i.e., the horse) with any precision, since the boundaries of the object are not merely notional, but real.

Park Racing was its inability to identify the object in relation to which the exclusion was to be effected.²⁰⁷

It could be argued that the attempt to identify an entity with great precision is a meaningless exercise and one that need not deter courts' according plaintiffs' interests proprietary protection. Property could thus be conceived as existing in anything in relation to which time, effort, labour or money is expended to enhance its commercial value, regardless of its tangible or intangible nature.²⁰⁸ This approach to identifying an object worthy of exclusionary protection is not entirely without merit. It is however inevitably dependent on the instrumental purpose for which the property metaphor (or concept) is employed. If the object of propertizing something (i.e., creating property rights over something) is to protect the commercial value inherent in the resource from depletion through use, then allowing the resource to be defined in terms of the entity possessed of value makes perfect sense (e.g. intellectual property rights such as patents).²⁰⁹ If on the other hand, the instrumental purpose for which the concept is employed is something else (e.g. regulation), then adopting a value-based understanding of the object of protection achieves very little.

The move from the tangible world to the virtual is probably more complicated than the transition from the tangible to the intangible, for two reasons. The first is that the reasons for employing the property concept here differ (and are not always connected with the protection of commercial value). The second derives from the nature of the virtual world (i.e., the Internet) and the manner in which we understand entities and resources in or on it. We have seen how courts tend to analyze the Internet as a collective of movables. Even within the paradigm of movables, they chose to adopt a specific conception of ownership control.²¹⁰

207. The plaintiff had sought to assert a property or quasi-property right in a *spectacle*. *Victoria Park Racing & Recreation Co Ltd v. Taylor*, (1937) 58 C.L.R. 479, 479 (HCA) (*per* Latham CJ). Kevin Gray uses the *Victoria Park* case and the opinions of the various judges therein to identify different reasons why certain resources may be deemed inherently non-excludable—physical, legal and moral. Gray, *supra* note 139, at 269–92.

208. D.F. Libling, *The Concept of Property: Property in Intangibles*, 94 L. QUART. REV. 103, 119 (1978).

209. It could of course be argued that such an approach is flawed since the reasoning it adopts is in effect circular: because the value in an object needs to be protected, the object can be understood as the very entity that possesses such value.

210. See Harold Smith Reeves, *Property in Cyberspace*, 63 U. CHI. L. REV. 761 (1996) (outlining three different conceptions of property boundaries on the Internet—the system-level boundary, the open-system boundary and the individual level boundary models). In relation to cybertrespass, they seem to alternate between a system level and individual level boundary model.

The very adoption of this paradigm of analysis however, may pose certain problems given the unique architecture of the Internet.

Among the various models used to analyze the architecture of the Internet, the most prominent one is the 'layers model'. Yochai Benkler was one of the earliest to employ this model in his analysis of the Internet and his arguments for the creation of a sustainable commons therein.²¹¹ In this model, a communications system can be understood by segregating it into three independent layers; (a) the physical infrastructure layer, consisting of the hardware (computers, wires, cables) that physically connects the various computers constitutive of the network; (b) the logical infrastructure layer, consisting of the myriad software code and protocols (e.g. TCP/IP, HTTP) that define the way in which the network operates and through which the hardware interacts and (c) the content layer, consisting in turn of the actual data that gets transmitted across the network—the software programs, the information and the plethora of other related material.²¹² These layers are sandwiched one over the other, with the physical layer at the bottom and the content layer at the very top.

The crucial thing to remember in relation to these layers is that they are capable of operating independently and consequently, different regulatory regimes exist for each of them. Thus, the physical layer (cables, hardware) is governed by the ordinary rules of property law (chattels), while the content layer is governed by rules that determine use and access rights in relation to information and data (such as copyright law). In making his argument for a digitally networked commons, Benkler notes how an open-access regulatory mechanism will have to be developed at each individual layer, in order to achieve the same.²¹³

However, just because the layers are *capable* of operating independently, it does not mean that changes at one layer do not influence another. The linearly sandwiched nature of the layers is responsible for this. Consequently, a regulatory spill-over remains a distinct possibility. In a fairly elaborate study of the interaction between the architecture of the Internet and its regulation, Lawrence Solum and Minn Chung lay down what they term, the 'layers principle'.²¹⁴ The core of the layers principle states that any system of regulation for the Internet needs to show respect for the integrity of the layers and this in turn is said to have

211. Yochai Benkler, *From Consumers to Users: Shifting the Deeper Structure of Regulation Toward Sustainable Commons and User Access*, 52 FED. COMM. L.J. 561 (2000).

212. *Id.* at 562; LESSIG, *supra* note 1, at 23.

213. *Id.* at 579.

214. Lawrence Solum & Minn Chung, *The Layers Principle: Internet Architecture and the Law*, 79 NOTRE DAME L. REV. 815 (2004).

two connected corollaries: (i) that regulation should never compromise the separation between the layers and (ii) the regulation should attempt to minimize the distance between the layer at which the law aims to produce an effect and the layer directly affected by the regulation in question.²¹⁵

Analyzing the Internet in terms of layers, they go on to propound two theses. The first, the ‘fit thesis’ postulates that layer-crossing regulations produce problems of fit between the regulatory ends in question and the means employed to achieve the same.²¹⁶ The second, the ‘transparency thesis’ states that layer-violating regulations are inherently detrimental to the transparency of the Internet.²¹⁷ The misfit is thus supposed to result in regulatory over-breadth and under-inclusion, while the reduction in transparency is shown to enhance the costs of innovation on the Internet. Regulation must thus be optimally tailored to focus exclusively on the layer it is directed at, and regulators must make a conscious effort to guard against violating the layers principle, according to this analysis.

The doctrine of cybertrespass is essentially a modified version of the common law tort of trespass to chattels. Its focal point is thus the individual computer/server of a plaintiff—i.e., the hardware. As a doctrine, it is therefore ostensibly directed at the physical layer of the Internet, attempting to regulate use and access to the hardware end-units, through a privatized, proprietary mechanism. But is this really what the doctrine is attempting to regulate? In reality, there may exist reason to believe that the doctrine is more concerned with regulating web-space itself, rather than the physical medium. Take the cases of *CompuServe*²¹⁸ and *eBay*,²¹⁹ both critical in relation to the evolution of the doctrine. In *CompuServe*, the court was ostensibly concerned with the physical intrusion onto the plaintiff’s physical mail server. The problem however, is that there was no intrusion or harm to the plaintiff’s physical hardware. The intrusion if any was at the level of the internal (i.e., logical) mail server and the protocols involved there (i.e., SMTP²²⁰). This is even more obvious in the *eBay* case, for there too, the electronic robots did not actually intrude onto the plaintiff’s computer. They had merely gathered information by

215. *Id.* at 817.

216. *Id.* at 879.

217. *Id.* at 878.

218. *CompuServe*, 962 F. Supp. 1015 (S.D. Ohio 1997).

219. *eBay*, 100 F. Supp. 2d 1058 (N.D. Cal., 2000).

220. The abbreviation for Simple Mail Transfer Protocol, the protocol that regulates the transmission of electronic mail messages from one server to another.

sending requests for the same to the plaintiff's computers, which had in turn delivered it to the defendant. There was never any actual intrusion.

What the courts had thus done, in applying the doctrine of cybertrespass, was to base the doctrine on metaphor, rather than reality. Given that the Internet is often described in terms of metaphors, the court adopted the ideas of 'entering', 'visiting', 'intruding' and the like to apply the doctrine. In reality however, these activities never happen. When a person accesses a website by entering the address of the site into a browser, in reality, the browser never *goes* or *visits* any place, it merely sends information to a server, which in turn transmits information to the user's computer, according to a set protocol.²²¹ It is the same information-request process that comes into play in relation to electronic mail as well. In sum, there was nothing physical about these intrusions. Dan Hunter notes how, in applying cybertrespass, courts have varied the resource in relation to which the exclusionary rule is sought to be applied between the computer, the bandwidth, the capacity, the processing power and the network and that apart from the first one (i.e., the computer) none of the others are chattels, by any stretch of imagination.²²²

The doctrine of cybertrespass was therefore about regulating the logical layer of the Internet, about how SMTP exchanges might occur and the manner in which robot protocols could retrieve information from websites. This was a consequence of the sandwiched architecture of the Internet. It did not however stop here. The layered nature of the Internet has also resulted in the doctrine indirectly regulating the content layer as well. This is most obvious in the *eBay* case, where the real issue was the defendant's use of the plaintiff's price information; information valuable, yet freely accessible in the public domain. The issue also arose in the *Hamidi* case, where the real reason for the defendant's recourse to the law was the derogatory nature of the defendant's mails rather than its quantity.²²³

A direct consequence of the courts' inability to define the object in relation to which the exclusion is being effected through a common law method is a regulatory ambiguity, resulting in either an over-propertyization or an under-propertyization. In both situations, the integrity of the layers is compromised. Further, given that the physical layer and

221. Lemley, *supra* note 4, noting that '[t]he Internet is merely a simple computer protocol, a piece of code that permits computer users to transmit data between their computers using existing communications networks.'

222. Hunter, *supra* note 4, at 486.

223. *Hamidi-III*, 30 Cal. 4th 1342 at 1358, where the court observed that "fictionally recharacterizing the allegedly injurious effect of a communication's *contents* on recipients as an impairment to the device which transmitted the message."

the content layer are both already the subject matter of regulatory regimes, it is indeed questionable whether the approach of regulating the intermediary logical layer through either of these layers is appropriate.

If the logical layer is the object of regulation, the common law methodology of applying a property metaphor instrumentally to achieve the same is undermined by an inability to identify a bounded object of the property right, i.e., the thing or the *res*, an integral element in any conception of property. Epstein seems to believe that difficulties such as these are capable of working themselves pure through the common law method incrementally and that there is no reason for worry or caution.²²⁴ Interestingly, Solum and Chung seem to be precisely against such incrementalism, arguing that since the direction of future innovation on the Internet remains unknown, even an individual case-by-case utilitarian balancing approach suffers from a lack of adequate information, which has the inevitable consequence of compromising the transparency intrinsic to the Internet.²²⁵ The common law process of incremental doctrinal development has been shown to exhibit several critical path dependent characteristics, most of which derive from its use of precedent and the doctrine of *stare decisis*.²²⁶ A process is said to be path dependent if its developmental direction is influenced by its own history.²²⁷ Some of the crucial characteristics of a path dependent common law process or development are: *non-ergodicity*—where small short-term decisions have large, unintended long-term consequences; *inflexibility*—where an early rule determines future outcomes owing to courts' unlikeliness to deviate without strong reason and *indeterminacy of eventual outcome*—in that the eventual consequence of the rule or doctrine is unpredictable.²²⁸

In its short history, the common law doctrine of cybertrespass has seemingly exhibited several of these path dependent characteristics. To begin with, each of the cases that contributed to the evolution of the doctrine relied on past decisions to reach its conclusion. *CompuServe* relied on *Thrifty-Tel*; *eBay* on *CompuServe*; *Register.com* on *eBay*; and the

224. Epstein, *supra* note 6, at 73, 76, 87.

225. Solum & Chung, *supra* note 214, at 854–60. Another reason they cite is the lack of institutional capacity on the part of regulators to achieve such a case-by-case balancing through an incremental process.

226. Oona A. Hathaway, *Path Dependence in the Law: The Course and Pattern of Legal Change in a Common Law System*, 86 IOWA L. REV. 101 (2001).

227. See Paul A. David, *Path Dependence, its Critics and the Quest for a 'Historical Economics'*, Keynote Address to the European Association for Evolutionary Political Economy" Athens Meetings, 7–9 November 1997.

228. Hathaway, *supra* note 226, at 129–35.

AOL cases on *CompuServe*.²²⁹ By the time the Supreme Court of California delivered its judgement in *Hamidi*, the doctrine had evolved adopting a chattel (as opposed to realty) metaphor. At this stage, even though the court seemingly recognized the inadequacies of this metaphor selection, it was too late for it to effect a complete reversal altogether (exhibiting *non-ergodicity* and an *inflexible lock-in*). Its attempt to rationalize the past decisions and portray them as being without flaw (in order to avoid having to explicitly differ with them),²³⁰ only resulted in an increased outcome indeterminacy in the process.

Epstein, in his analysis of cybertrespass is forced to concede that real property rules offered courts a much better fit than did those relating to chattels, since 'cyberspace looks and functions more like real property than chattels.'²³¹ Implicit in this concession is the recognition that the subject matter of the property right (i.e., the thing or the *res*) in relation to cybertrespass, namely cyberspace, remains ill-defined. If the common law process in general and the evolution of cybertrespass in specific are indeed path-dependent, there appears little reason to be optimistic about the role of an incremental process in working to remedy these fundamental ambiguities.

The attempt to regulate the logical layer through the market mechanism of creating a common law property right thus suffers from a major methodological drawback. While regulation undoubtedly concerns individual conduct, a property-rule invariably must involve an identifiable *res* in relation to which the conduct is proscribed. A failure to do so obscures the proprietary nature of the right. Property is concededly, about relations between persons; but these relations invariably manifest themselves around an object (a thing) and never in abstract, for it is only by masking the individual identity behind an *a-personal* thing, that the right acquires its *in rem* nature.

Yochai Benkler, in his discussion of the allocation of rights in the wireless spectrum, notes that regulation is ultimately about conduct and that the use of the property metaphor for regulatory purposes should not result in a dogmatic (and ultimately futile) search for a resource.²³² Benkler was however not dealing with the common law method of creating property rights through a tortious doctrine, but rather with the

229. Even if the precedents were not considered binding that they certainly did have considerable persuasive value is readily apparent.

230. Patricia L. Bellia, *Defending Cyberproperty*, 79 N.Y.U. L. REV. 2164, 2182 (2004).

231. Epstein, *supra* note 6, at 83. It is open to debate whether this may be taken as a recognition of the *non-ergodicity* inherent in the development of the doctrine.

232. Yochai Benkler, *Overcoming Agoraphobia: Building the Commons of the Digitally Networked Environment*, 11 HARV. J. L. & TECH. 287, 288 (1997-98).

process of *allocating rights* over the spectrum, rights which economists identify as proprietary in nature. This process of allocating property rights over an intangible medium can be traced back to Ronald Coase, and his ideas for privatizing the broadcast spectrum.²³³ Indeed, this method of viewing property rights in terms merely of ‘permitted uses’ is characteristic of the economic analysis of law.²³⁴ In this conception, the ‘use right’ (i.e., shooting a gun) assumes more importance than identifying the owner of the resource (i.e. airspace) to which the use relates.

Coase’s preference for viewing the matter in terms of an assignment of tradable use rights was linked to his use of the law of nuisance to explain the phenomenon of transaction costs.²³⁵ Much of his argumentation relating to transaction costs derived from the apparent reflexivity of harm and the balancing exercise that courts had to carry out in deciding nuisance claims. Nuisance and trespass, though related, are fundamentally different in their approach. Nuisance involves a balancing exercise, which some characterize as utilitarian, while trespass ordinarily involves the mechanical application of an exclusionary rule.²³⁶ Consequently, the need to define the object of the right is less critical in the law of nuisance, given that it focuses almost completely on the defendant’s behavior and attempts to balance the gains from the same against the costs incurred by the plaintiff as a direct consequence.

An exclusionary mechanism such as trespass however involves far less balancing and almost always adopts a near mechanical two step process of ‘intrusion–exclusion’. Identifying the object of the intrusion and the consequent exclusion therefore assumes greater importance. Applying the Calabresi-Melamed model²³⁷ to the trespass-nuisance dichotomy, we see that while trespass is characteristic of a property rule, the law of nuisance is aptly representative of a liability rule (in allowing for a court enforced sale of the right). Thus, adopting a nuisance-based approach to regulating the logical layer of the Internet might have rendered obsolete the

233. Ronald H. Coase, *The Federal Communications Commission*, 2 J.L. & ECON. 1 (1959).

234. Merrill & Smith, *supra* note 160, at 372 (noting Coase’s observation that it was simpler to understand regulating the shooting over one person’s land as a question of what a person should be allowed to do with a gun, rather than whether the person who so shot actually owned the airspace over the land).

235. Coase, *supra* note 159, at 2–15.

236. For an overview of this distinction, see Merrill, *supra* 100; Henry E. Smith, *Exclusion and Property Rules in the Law of Nuisance*, 90 VA. L. REV. 965 (2004); Epstein, *supra* 102); Henry E. Smith, *Exclusion versus Governance: Two Strategies for Delineating Property Rights*, 31 J. LEGAL STUD. 453 (2002). For a historical overview of the development of nuisance at common law, see JOSHUA GETZLER, *A HISTORY OF WATER RIGHTS AT COMMON LAW* Ch. 2 (2004).

237. Calabresi & Melamed, *supra* note 19.

need to define the resource in question and maintained the integrity of the individual layers.²³⁸ Unfortunately, courts did not see the rationale in this approach.

Even if the instrumental use of the property metaphor to achieve privatized regulation is deemed unobjectionable, the common law method through which this was sought to be achieved (i.e., the doctrine of cybertrespass) exhibits fundamental conceptual flaws. Property is in the end about *excluding* individuals *from* something *for* a specific purpose. Assuming that the purpose has been identified, the thing from which the right operates to exclude individuals is just as important as the element of exclusion. This point is borne out by the fact that conceptually excludability (in relation to a property right) is meaningful only in so far as it is balanced by and protects use privileges. Excludability for its own sake, devoid of use or access privileges does not constitute property. Use and access are in turn intransitive, requiring the identification of a resource over which they are to operate. Thus, when the resource from which the exclusion is to operate is poorly defined, it begins to undermine the proprietary nature of the right in question. The continued use of the property metaphor within such a framework distorts even the most basic understanding of property—as always being *in relation* to an identifiable object.

CONCLUSION

What then happens to the concept of property, as it is used in the context of the virtual world of the Internet?

The previous discussion has sought to establish that the metaphorical application of property concepts to the Internet is intricately linked to a shift in (a) the reasons for which proprietary concepts (based on exclusion) are employed and (b) the primacy of the *propertiness* of property, or the need to identify the concept with a bounded resource. The doctrine of cybertrespass operates at the interface of property and tort law, attempting to vindicate a putatively pre-existent property right, through an exclusionary remedy. The need for this exclusion derives however neither from the nature of the resource (as it does for tangibles) nor from the need to protect the value inherent in a resource, which might be depleted through multiple use (as it does for informational resources). It seems to derive largely from an attempt to deploy the element of control

238. For arguments advancing a nuisance based approach, see Burk, *supra* note 4, at 53; Steven Kam, Note, Intel Corp. v. Hamidi: *Trespass to Chattels and A Doctrine of Cyber-Nuisance*, 19 BERKELEY TECH. L.J. 427 (2004).

inherent in the exclusionary feature of a property right to develop a decentralized regulatory structure for the Internet. Property is thus employed instrumentally, to achieve a purpose not directly connected with the resource over which the right is to operate. The *sequitur* of this is that such an instrumental use avoids defining the *real* target of the right, or the resource over which the exclusionary mechanism is meant to operate.

If we accept that property, at its bare minimum consists of the element of *excludability* operating over an identifiable *thing*, employed for a particular purpose, cybertrespass may thus be viewed as employing the concept of property instrumentally, through the mechanism of tort law. On the face of it, the concession that property in this context (and some others) is largely about instrumentalism, may seem to be arguing for a form of property skepticism that some theorists have espoused. While it is true that property may be used for both intrinsic and instrumental purposes, this concession *alone* need not lead one down the slippery slope of skepticism.

As noted, a proprietary regime may be deployed for reasons that derive from the rivalrous nature of the resource or, instrumentally, for reasons that are either connected to or independent of the resource. Applying the concept of property instrumentally is not in itself problematic. It becomes so however in situations where this instrumentalism comes to erode the minimum core of property. When this move becomes fairly well entrenched, the turn to skepticism is indeed not far away. The developing category of cybertrespass illustrates this.

Property, as an *in rem* right uses the idea of an a-personal 'thing' as its focal point to enable interpersonal interactions.²³⁹ The 'thing' thus anchors the exclusionary regime, given that excludability as a concept is intransitive, requiring a resource to become operational. The law of trespass, of which cybertrespass is a derivative, further builds on this, by presuming public knowledge of the existence of the 'thing' and its boundaries. The doctrine of cybertrespass however, in the manner in which it has been interpreted by courts, premises its analysis on a metaphorical understanding of the Internet while yet applying a tort law doctrine that is premised on a physical intrusion. In the process it fails to identify with any precision the 'thing' in relation to which the exclusionary remedy effectively operates. Given the centrality of the 'thing' to the concept of property, this failure effectively results in the instrumental purpose coming to dominate the very concept. We have already seen that

239. PENNER, *supra* note 96, at 29; Henry E. Smith, *The Language of Property: Form, Context and Audience*, 55 STAN. L. REV. 1105, 1115 (2003).

this conscious attempt to undermine the relevance of the thing, is something characteristic of the economic analysis of property rights, and can be traced back to Ronald Coase, who viewed property as consisting of tradable rights to perform certain activities, rather than ownership privileges.²⁴⁰ If this method of reasoning is indeed adopted, there may be little reason to categorize the rights as constitutive of 'property', merely because of their tradability. Property consists of more than just the tradability of rights and derives from the underlying nature of those rights.

In the end, the doctrine of cybertrespass may represent little more than legal sophistry. Both sides of the policy debate (on the propertization of the Internet) seem more than ready to lace their arguments with sophisticated legal concepts and courts have been more than willing to in turn accept the same. Concepts such as 'property' and 'trespass' however come to any discourse with a fairly well defined meaning and a failure to acknowledge this in its entirety, obfuscates both the meanings of the conceptual tools deployed and the very purpose for which they are so deployed. The confusion that currently exists in the law of cybertrespass on the element of 'actual damage' aptly reflects this.

Cyberspace, with its negative rivalry, exhibits little intrinsic need for propertization. While there certainly may have existed the need to develop a regulatory regime for the Internet, the use of proprietary concepts for the same under the doctrine of cybertrespass has only resulted in more ambiguity and confusion than it has in any meaningful regulation. We can look forward to a time when courts come to realize that regulation and governance on the Internet may be better served by analytical tools other than property metaphors.

240. Coase, *supra* note 233, at 34; Coase, *supra* note 159, at 44.