

Intellectual Property: Old Boundaries and New Frontiers

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It is a great honor for me to speak here this afternoon. The Harris Lecture Series is indeed one of the single most distinguished series of faculty lectures found in law schools throughout the country today, and I am proud to join the distinguished list of lecturers that have graced this podium in years past. The topic of this lecture is shrouded in ambiguity, for it travels under the name *Intellectual Property: Old Boundaries and New Frontiers*, which allows me more or less complete freedom to speak about the general field of intellectual property without violating the jurisdictional constraints imposed on me by the original title. In fact, my more serious purpose for choosing this particular title is to suggest that we are capable of learning much about one of the fastest and most modern fields of law—intellectual property—by studying one of the most traditional areas of law, which for reasons that should become clear I will call compendiously the law of tangible property.

The topic I am going to explore today is the extent to which it is possible to draw comparisons or analogies between the traditional forms of law that you thought you knew and the forms of law that at this point are to some extent inchoate, or if not inchoate, then subject to an intensity of use and notoriety that would have been almost unimaginable even a decade ago. If someone were to record the status of intellectual property when I was a law student in the dark ages of the 1960s, then this stereotype would hold true: Anyone who registered for a patent course was probably an asocial engineer. Today, on the other hand, virtually all intellectual property courses are heavily subscribed by students who come from all sorts of different backgrounds. Large law firms that once would never stoop to do such technical, low-level work have now set up entire departments to address these issues.¹ The rate of filings in patents has moved up dramatically,² and the business deals that contain a prominent intellectual property component have increased exponentially. Intellectual property is big business today, so big that any mistakes in the legal design of the field could easily generate deleterious consequences.³ Getting it right has, if anything, become more important than it has ever been before.

That said, I don't think that it's going to take much to persuade anyone that intellectual property law is noted not only for its complexity but also for its

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1. See Peter J.W. Elstrom, *Intellectual Law Is Hot Property: Firms Bolster Staff, Starting Pay*, CRAIN'S CHICAGO BUS., July 9, 1990, at 3.

2. U.S. PATENT & TRADEMARK OFFICE, CENTURY OF AMERICAN INVENTION: A PATENT & TRADEMARK OFFICE REVIEW, FISCAL YEAR 1999, at 6 (1999), available at <http://www.uspto.gov/web/offices/com/annual/1999/99patents.pdf>.

3. Press Release, PR Newswire, Intellectual Property Expected to Be 'Practice of the Decade' According to New Survey: Attorneys See IP Dominating Legal Landscape (June 15, 2000).

tremendous internal diversity.⁴ Broadly speaking, intellectual property comprehends at least five or six separate areas:⁵ patents, copyrights, trade names and trademarks, trade secrets, the protection of name and likeness (a largely common-law right that today travels under the banner of “the right of publicity”), and finally, all sorts of niche rights such as the quasi-property right in news that was recognized (if not created) in *International News Service v. Associated Press*.⁶

The compilation of this list must be accompanied by a stern warning: The mere fact that intellectual property law subsumes these six separate fields does not guarantee that any proposition that holds good for one of these areas will necessarily carry over to a second. In every case, it is just as critical to attend to the differences between these particular systems of regulation on matters of doctrinal organization and administrative organization. Both of these features of the legal system often proceed on separate tracks across the subtopics of intellectual property so much so that almost no one today is fully conversant, let alone comfortable, with all its subfields. Patent, in particular, is so convoluted an area that practice before the Patent and Trademark Office (“PTO”) requires a candidate to pass a detailed and difficult set of examinations.⁷ Ordinary lawyers, like myself, cannot sully the doorsteps of this legal temple by trying to argue a case with the PTO.⁸

Therefore intellectual property does not have to work to establish its credentials as an abstruse and technical area. But what is sometimes forgotten is that the reference point in this comparative study—that is, the old, tangible property—is every bit as complicated. That heterogeneity on both sides of the line makes it far more difficult to draw analogies from one field that the profession thinks it understands but doesn’t quite, to another field which it really doesn’t understand yet but is anxious to master. Thus it bears repeating that the law of real property—that is, the law devoted to land and the improvements on it—forms a distinct field whose rules are rather different from those of personal property.⁹ The task of analogy becomes still more difficult when we deal with the law of animals, oil and gas, water rights (which itself is governed by multiple different regimes),¹⁰ or air rights. To these we can add the law governing the use of the spectrum¹¹ or of mineral rights. Suddenly, the law of tangible

4. EDWARD F. O’CONNOR, A PRIMER ON INTELLECTUAL PROPERTY LAW INCLUDING PATENTS, COPYRIGHTS, TRADEMARKS, TRADE SECRETS, UNFAIR COMPETITION, GENERAL BUSINESS LITIGATION AND INSURANCE, WITH PARTICULAR EMPHASIS ON PATENTS AND PATENT LITIGATION STRATEGY, at v-vi (1996).

5. DONALD S. CHISUM & MICHAEL A. JACOBS, UNDERSTANDING INTELLECTUAL PROPERTY LAW 1B (1992).

6. 248 U.S. 215 (1918).

7. U.S. PATENT & TRADEMARK OFFICE, GENERAL REQUIREMENTS BULLETIN FOR ADMISSION TO THE EXAMINATION FOR REGISTRATION TO PRACTICE IN PATENT CASES BEFORE THE UNITED STATES PATENT & TRADEMARK OFFICE (2001), available at <http://www.uspto.gov/web/offices/dcom/olia/oed/grb0104.pdf>.

8. See *id.*

9. RAY A. BROWN, THE LAW OF PERSONAL PROPERTY § 1.7 (Walter B. Raushenbush ed., 3d ed. 1975).

10. See, e.g., JOHN P. DWYER & PETER S. MENELL, PROPERTY LAW AND POLICY: A COMPARATIVE INSTITUTIONAL PERSPECTIVE 94-113 (1998).

11. See, e.g., Krystilyn Corbett, *The Rise of Private Property Rights in the Broadcast Spectrum*, 46 DUKE L.J. 611 (1996).

property looks to be far more variegated than is commonly recognized.

The creation of multiple baselines thus offers the clever lawyer, who is determined to steer a litigated case through a legal maze, ample opportunities to compare or contrast. The law offers that skilled lawyer a matrix in which many areas of tangible law could map into a second matrix, that of intellectual property law. The pressing question is to decide which analogies work across fields and which do not, both in litigation and, for that matter, in legislative reform. Looking at this treasure trove of analogies, it is useful for lawyers to disabuse themselves of a tendency that I like to call, and that others have called, Blackstone's fixation with the land paradigm and description of the entire law of property.¹² Blackstone in his *Commentaries*¹³ had a few insightful remarks to make about water law.

For water is a movable, wandering thing, and must of necessity continue common by the law of nature; so that I can only have a temporary, transient, usufructuary property therein: wherefore, if a body of water runs out of my pond into another man's, I have no right to reclaim it.¹⁴

But he was prone to exaggeration by thinking of private property writ large in far more grandiose terms, 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."¹⁵ I love the last word: "universe." This was the model of property that is meant to cover all external things, without differentiation.

The implicit model is that any owner of this solid thing could post "keep off" signs in every direction so as to treat all forms of property as a kingdom or castle. But to look closely at all the forms of property that have existed even before reaching intellectual property is to realize that Blackstone engaged in injudicious overgeneralization, as his brief comment on water law revealed. Indeed, even with respect to land his bold characterization, which contains a powerful kernel of truth, was something of an exaggerated idealization even in his own time.¹⁶ We should therefore take Blackstone's seductive natural-law truths, with their unexplained appeals to notions of "necessity,"¹⁷ as a cautionary warning on how *not* to think about property regimes generally before getting down to the grubby particulars of any specific regime.

Blackstone's natural-law tradition—like everything we are talking about today—also contains a very powerful internal ambiguity. The one strand of natural-law thinking that I tend to deprecate—and in weak moments to deplore—is that

12. Hanoch Dagan & Michael A. Heller, *The Liberal Commons*, 110 YALE L.J. 549, 555-58 (2001).

13. 2 WILLIAM BLACKSTONE, COMMENTARIES *18.

14. *Id.* Note that this position is wrong on point of detail, for it does not account for the undisputed fact that riparians have limited rights to remove water for various forms of personal use. For an account of the early development, see RESTATEMENT (SECOND) OF TORTS § 849, at 209 (1979) [hereinafter RESTATEMENT]. For a discussion of the functional reasons why riparian systems adopted rules that allowed for limited appropriation, see RICHARD A. EPSTEIN, PRINCIPLES FOR A FREE SOCIETY: RECONCILING INDIVIDUAL LIBERTY WITH THE COMMON GOOD 261-65 (1998).

15. 2 BLACKSTONE, *supra* note 13, at *2.

16. See EPSTEIN, *supra* note 14, at 254.

17. 2 BLACKSTONE, *supra* note 13, at *8 ("Necessity begat property . . .").

strand that asserts that any particular area is governed by certain necessary truths that the astute analyst can deduce from first principles applicable regardless of circumstance, time, and culture.¹⁸ Accordingly, this view of natural law embodies the powerful, universalistic strand found in Blackstone's rhetoric.

On the other hand, a second approach to natural law is both more cautious and more accurate. It runs as follows: Any system of law will endure only if it is conformable with the various institutions and individuals that it has to govern; the law has to respond to the peculiarities of people and circumstance; and everything is a matter of delicate tradeoff and accommodation. Understood as such, it is as though the legal system has three pegs with which to plug four holes in a vessel, so that the task of the legislator or judge is to locate the pegs to minimize the amount of leakage. The essence of any legal system is to figure out how many blows the ship of state can take below the waterline and still stay afloat. The key message is that every sound legal rule is subject to principled counterexamples that demonstrate its latent (but unavoidable) inutility. But by the same token, a resilient rule probably has greater offsetting advantages that keep it in place. The central theme for the humbler natural lawyer is to look at the magnificent variation in legal institutions to determine what kinds of tradeoffs are sustainable, and what kinds are not. In dealing with land, these tradeoffs are often lost in Blackstone's absolutist talk, but they become much more evident in dealing first with water law, and then with the various forms of intellectual property. Perfection is not attainable: The question is what costs are incurred when other costs are moderated.

In order to bring these abstractions down to a more concrete level, it is useful to organize this topic into three parts, corresponding to the three kinds of rules that form part of any kind of property system. The first set of these rules are those of acquisition. The second concerns the rules of exclusion. The third concerns the rules of duration. These rules are foundational to understanding the relations internal to any system of property, and build upon one another in a systematic way. Because the same types of choices have to be made in other areas of property, the law must begin by discerning what system of acquisition works best for each. Next it becomes necessary to ask two other questions about what you get. The first is just how strong is that right to exclude to which Blackstone referred.¹⁹ To use the standard argot, are there going to be some particular *privileges* that will override that right? The second legal question addresses the delicate issue of the *durability* of the right. When you in fact acquire a right that gives you some limited rights to exclude, what's the period of time to which you can keep the right to the exclusion of everybody else in the world? As the law moves from resource to resource it has to address at least these prongs. What do you think about acquisition? What do you think about exclusion? And what do you think about durability? There are other things you could add into the mix but the time is short and so, at least for the moment, I'll concentrate on these three elements, which cover most of the essential points.

18. For a further critique, see EPSTEIN, *supra* note 14, at 9-39.

19. 2 BLACKSTONE, *supra* note 13, at *2.

I. RULES OF ACQUISITION

The first set of legal rules are those associated with the acquisition of property rights. Even with all the talk about the law of nature, it is not a brute fact of nature that anyone owns anything. There is some social substrate that creates these entitlements. How is it that somebody turns out to own anything in this particular world? How do we match up individuals with particular kinds of resources?

This is a nontrivial question. For example, to show how it is possible to create a bizarre system of rights, I can declare that each of you owns the body of the person sitting to your right, but you don't own your own body. Now don't smile nervously. "Thou shalt not covet" has an unanticipated use in this lecture. It takes little reflection for all of you to recognize the fundamental inefficiencies from my novel property rights regime. Each of you would rather have a rule that assigned to each of you your own body so that when you change seats, you do not, in fact, change who owns you and whom you own. Faced with a choice between these two allocation rules, we could be quite confident, empirically, that one particular distribution of rights is going to leave us rather better off than its alternative.

It makes sense, therefore, to be comfortable with the idea of self-ownership. But how is it that you acquire your own person? The answer is you don't have to do much of anything: Just live. This is an enormously cheap system of acquisition that works well across the board—so much so that it almost seems to carry with it that natural sense of necessity that Blackstone attributed to all property rights.²⁰ But to understand what is happening, we have to pay attention to the functional justifications for the rule, which we tend to ignore because the self-ownership rule is automatic in its operation and so effective in its outcome that it seems to call for no explanation at all. That lack of disputation should be treated as a sign of its success, not a sign of its unimportance. Yet my alternative hypothetical system of ownership is useful here precisely because it should persuade those of you who might prefer to be legal cynics—on the question of whether one rule is better or worse than another—to no longer take that dangerous and skeptical position.

Yet there is an instructive lesson here, for it is much more controversial to figure out what kinds of rules work best for the acquisition of tangible property (Blackstone's external things),²¹ because under such circumstances we do not have the convenient occupation of ourselves from the time that we're born to settle the matter. Therefore, we actually have to engage in some positive acts or craft some legal arrangements to determine who shall get what. What is striking about the common law is that it has generally adopted a rule that seems to glorify individual acquisition at the expense of social harmony. That is the particular rule that says (as a first approximation at least) the individual who first comes to a thing and takes possession of it is able to keep a thing to the exclusion of everybody else.²² As our friend Blackstone put it, "as we before observed that occupancy gave the right to the temporary *use* of the soil, so it is agreed upon all hands, that occupancy gave also the original right to the permanent property in the *substance* of the earth itself."²³

20. *Id.* at *8.

21. *Id.* at *2.

22. EPSTEIN, *supra* note 14, at 25-31.

23. 2 BLACKSTONE, *supra* note 13, at *8 (emphasis in original). Note that this passage

What is characteristic about this particular rule is that it has been subject to withering criticism by all sorts of academics²⁴ and yet it remains unshaken, not only in the English common-law tradition²⁵ but in the civil-law tradition.²⁶ The criticisms about it, I think, are perfectly sensible. Suppose I do a little bit of labor: I spend about a half hour to uncover a bubbling oil field near the surface of the desert. Why does my labor entitle me to this unearned increment, as opposed to anybody else? Acquisition is a unilateral act that excludes other individuals. Why should we not treat this act of acquisition as though it were an act of depredation? How in effect does acquisition privilege the acquirer against other individuals who come to the same place a moment behind in time?

These criticisms contain much truth, but they do not tell the whole story for there are offsetting advantages to the rule, which, in some contexts, can offset these objections.²⁷ One question to ask is how will the world look if we decided to displace the principle of first possession? Stated otherwise, the critic or skeptic can't beat a rule with no rule, but rather he must specify its alternative and defend it in turn. One alternative that he might come up with is to stipulate that the law should keep this particular thing as a resource held in common. Well, that's a great idea until some struggling farmer tries to plant the first crop, only to face uncertainty as to who will harvest that crop and sell it—points that Blackstone noted with great acuity.²⁸ The great vice of certain types of commons is, quite simply, that they preclude the orderly

comes after a more functional explanation that holds that private ownership is necessary to create the incentives to encourage cultivation. *Id.* at *7-8. What is so extraordinary about Blackstone is how he veers, often within a single paragraph or sentence, from an astute functional to an empty formal explanation of the same phenomenon. *See, e.g., id.* The agreement to which Blackstone refers leads into a discussion of the source of this right. *Id.* at *8-9. Grotius and Puffendorf believe that private ownership comes from tacit consent. *Id.* at *8. Barbeyrac, Titius, and Locke think that “the very act of occupancy alone, being a degree of bodily labor, is, from a principle of natural justice, without any consent or compact, sufficient of itself to gain a title.” *Id.* No explanation is, however, offered as to why we should accept either of these views.

24. For a sampling, see LAWRENCE C. BECKER, *PROPERTY RIGHTS: PHILOSOPHIC FOUNDATIONS* (1977); *PROPERTY: MAINSTREAM AND CRITICAL POSITIONS* (C.B. MacPhearson ed., 1978); RICHARD SCHLATTER, *PRIVATE PROPERTY: THE HISTORY OF AN IDEA* (1951). The idea also has its modern defenders, who see it as a bulwark against tyranny. *See generally* RICHARD PIPES, *PROPERTY AND FREEDOM* (1999).

25. *See, e.g.,* JESSE DUKEMINIER & JAMES E. KRIER, *PROPERTY* 3-63 (3d ed. 1993); *see also* EPSTEIN, *supra* note 14, at 25-31.

26. *See, e.g.,* G. INST. 2.66 (S.P. Scott trans.).

27. *See, e.g.,* EPSTEIN, *supra* note 14, at 25-31, 254.

28. 2 BLACKSTONE, *supra* note 13, at *7. Blackstone states:

And the art of agriculture, by a regular connection and consequence, introduced and established the idea of a more permanent property in the soil than had hitherto been received and adopted. It was clear that the earth would not produce her fruits in sufficient quantities without the assistance of tillage; but who would be at the pains of tilling it, if another might watch an opportunity to seize upon and enjoy the product of his industry, art, and labor?

Id. Note that the reference to “art” shows how ownership of land is one way to protect various forms of “know-how,” which later receive separate protection as a form of intellectual property.

and coherent development of the resources governed under that legal regime.²⁹ If each of you is uncomfortable with being owned by the fellow to the right, then how would you like it if I were to announce to you tomorrow that although each of you now owns your own home, we're going to treat you all as owners in common of all of the homes that you now own separately. I shall leave it to your devices to decide who will rattle around what house. That system is not going to work particularly well.

These simple examples show that there is an advantage to the first-possession rule that in some cases at least offsets its evident disabilities. To wit, this rule gives property a single owner: a person who in fact now can decide whether to improve, alienate, or consume the resource, and who therefore, in effect, can develop its potential in a coherent fashion. Collective ownership of particular resources is inconsistent with intensive application of individual labor to any external thing, which is why we retreat from the conception of the large commons when we move from the hunter-gatherer to the agricultural stage. Within five pages after he announces his universal rule of exclusion for all external things, Blackstone offers us its decisive refutation in the form of a persuasive historical account of how this rule evolved (messily to be sure) in response to changes in technology that brought about changes in land-use patterns.³⁰

Once we see that fee ownership is not some universal rule even for land, we should be more sensitive to the possibilities of variation with other types of resources, where relative costs and benefits can also shift. With respect to land, for example, if the diligent first possessor who runs out to acquire a large parcel does not destroy the productive value of the land by taking occupation of it, then the system seems less problematic. But if every hunter goes out and kills whales and large mammals, then pretty soon that group will face the problem of extinction. I must stress that this is not just a modern problem. In prehistoric times, overhunting in one generation proved to be the source of starvation in the next. Prior to the arrival of the British, New Zealand hunters forced the extinction of flightless birds.³¹ And in the nineteenth century, we have the spectacle of hunting buffalo to near extinction.³²

At this point, the first-possession rule gives rise to certain kinds of difficulties of a highly practical nature. The losses from a bad acquisition rule could easily dwarf the gains from having clear ownership of the animals that were slaughtered. It then behooves us to ask, What sort of variations should be made so as to preserve the benefits from individual ownership on the one hand and to sidestep the risks of overconsumption on the other? At this juncture, we start having to think about more complicated regulatory structures that impose limits on catches by the states or national government. Once we understand that the tradeoffs between acquisition and utilization vary by resource and condition, we can understand the coherence of some regulatory schemes, so long as we are acutely aware of how pertinent the details of regulation are to the overall success of any particular regulatory system.³³

The overall pattern looks still more puzzling because the exclusion model does not

29. See EPSTEIN, *supra* note 14, at 225.

30. 2 BLACKSTONE, *supra* note 13, at *8.

31. 8 THE NEW ENCYCLOPEDIA BRITANNICA 207 (15th ed. 1998).

32. Sherry M. Thompson, *The Return of the Buffalo: An Historical Survey of Gaming in the United States and Canada*, 11 ARIZ. J. INT'L & COMP. L. 521, 521 (1994).

33. R. Quentin Grafton et al., *Private Property and Economic Efficiency: A Study of a Common-Pool Resource*, 43 J.L. & ECON. 679 (2000).

work well, for example, with water. No one would give much credit to an institution that holds that it is perfectly proper to place the Nile River in barrels. Too much is lost if we treat the river as though it were only water, thereby denying it any going-concern value. The obvious inefficiencies of this result were so great that the actual legal system that Blackstone described never even flirted with so extreme a conclusion.³⁴ As already noted, he understood that private interests in water were largely of a "usufructuary" interest, which meant that the water-rights system had features of an open-access system, in that all could take advantage of the waters for navigation and fishing.³⁵ But the mixed nature of the system became only more apparent when rights to removal were restricted in ways that were inconsistent with the unadorned first-possession system: Only limited quantities could be withdrawn from the river, and then only for limited purposes that did not interfere with its going-concern value.³⁶

As is often the case, the actual operation of the overall system of property, developed as it was by hook or crook, showed far more sophistication than the rather simple theoretical constructs that have been used to describe and justify it. Thus at the same time that we heard Blackstone proclaim the unity of property in "external things,"³⁷ the rules for land, animals, and water all diverged on important points. Even within any given category, the choice of legal rule was often technologically sensitive. For example, a society did not have to impose catch limits for animals when the low level of hunting did not rub up against the sustainable yield of the resource. But the moment the intensity of use starts to increase, the costs devoted to the delineation of legal rights and their enforcement will start to increase.³⁸ This is a point made by Harold Demsetz, who notes that the Montagnes Indians in Labrador moved toward hunting territories when the demand for furs was increasingly spurred by the opening of markets with European traders in North America.³⁹ But lest there be any misimpression here, it is *not* as though there was no system of property rights before the system of territories was introduced. Rather, the system was just an older system that gave full ownership rights to whomever captured the wild animal.⁴⁰ The shift to territories thus replaced one system with another, and the success of that new system depended on the habits of the animals to which it applied. For territories to work, the animals have to be nonmigratory, otherwise this system will crumble as each holder of a territory will have an incentive to overhunt during the short periods that valuable animals are located on their lands.⁴¹ Once again, knowledge of the details is indispensable for seeing how the rules of acquisition work.

The picture looks more or less the same when we turn our attention to the various rules that govern the acquisition of intellectual property, which also have to respond to the differences in the nature of the underlying property rights. Once again the fundamental concern is directed to the gains from a system of exclusion in contrast

34. 2 BLACKSTONE, *supra* note 13, at *1-19.

35. *Id.* at *18.

36. *Id.* at *18 n.17.

37. *See id.* at *3.

38. *See* Harold Demsetz, *Toward a Theory of Property Rights*, AM. ECON. REV., May 1967, at 347, 350-53.

39. *Id.* at 351-52.

40. *See id.*

41. *Id.* at 351-53.

to those from a system that keeps resources in commons. So long as we think that the commons will dominate, we just bar exclusive acquisition altogether—be it by capture, use, or anything else. This rule, for example, applies to the long-established proposition that holds that no individual can take out property rights in a mere idea or general proposition.⁴² The borderland between idea and invention is hardly crystal clear, and it takes a good deal of litigation to police that line.⁴³

Yet before we get ahead of ourselves, it is quite clear that in those areas where we do allow the creation of intellectual property interests, we have to face the question of their acquisition head on. There is no single answer to the question of acquisition on the intellectual property side of the line any more than there is a single answer for the various forms of tangible property. With regards to the acquisition of intellectual property, perhaps the first area to consider is that which governs the misappropriation of name or likeness, which is now generally protected either by statute or at common law.⁴⁴

How does anybody acquire ownership of their name and likeness? Oddly enough that question parallels the question of how anyone acquires ownership of his or her own body.⁴⁵ The most efficient system is one that requires no distinctive actions for acquisition at all. After all, each person is distinctive in appearance, and may be distinctive in how he says “Here’s Johnny”⁴⁶ or how she would look if she were a robot.⁴⁷ By allowing each person, without further ado, to control the use of his name or likeness, we have backed into a very simple system that links up names and images with real people. But this system will create genuine complications on just how far that ownership interest will extend.

In the seminal case of *Roberson v. Rochester Folding Box Co.*,⁴⁸ Chief Judge Parker took the view that the issue of how far the right went was so complex that no court should start to protect it at all.⁴⁹ His immediate concern was with the distinction between the commercial use of a name in an advertisement and the use of a name or likeness in covering the news of the day.⁵⁰ Clearly the relative values between exclusion and the commons differ in those two contexts, and the *Roberson* court did not think that judges should create lines that seem to be wholly arbitrary.⁵¹ That conclusion itself looks odd against a backdrop in which courts have created the complex mix of private and common rights in water.⁵² It bears noting, therefore, that

42. See, e.g., *Gottschalk v. Benson*, 409 U.S. 63, 67-72 (1972) (declaring that a mathematical formula for binary conversion of data is not protectable); *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 129-32 (1948) (holding that the compatibility of certain *Rhizobia* bacteria is an example of a nonpatentable general law).

43. See, e.g., *Diamond v. Diehr*, 450 U.S. 175, 185-93 (1981) (holding that an algorithm used in rubber processing was patentable).

44. RESTATEMENT, *supra* note 14, § 652C.

45. See *supra* text accompanying note 20.

46. *Carson v. Here’s Johnny Portable Toilets, Inc.*, 698 F.2d 831, 834-37 (6th Cir. 1983).

47. See *White v. Samsung Electronics Am., Inc.*, 971 F.2d 1395, 1397 (9th Cir. 1992).

48. 64 N.E. 442 (N.Y. 1902).

49. See *id.* at 447-48.

50. *Id.* at 443.

51. *Id.* at 443-44.

52. See generally A. DAN TARLOCK, *LAW OF WATER RIGHTS AND RESOURCES* (12th release 2000) (discussing the system of water rights that have developed in the United States).

the line between commercial and general use has been uniformly respected in the cases that chose to respect intellectual property rights in name and likeness,⁵³ and of course it was accepted in the New York statute⁵⁴ that accepted *Roberson's* judicial invitation to create the right of privacy.⁵⁵

Moving on, the rules of acquisition do not seem to create much difficulty in the law of trade secrets. The fundamental question is whether these secrets should receive any kind of property protection at all. The answer to that question seems to be in the affirmative, given the need to protect the labor and investments that people make in developing various processes and relationships of positive value.⁵⁶

The basic theory of a trade secret is that a person is allowed to keep secret that information that he acquires for himself,⁵⁷ and to transfer it by contract to other individuals with the clear understanding that they remain under a strict obligation of confidentiality.⁵⁸ In accordance with their nature, these trade secrets do not give their owner an exclusive right to their *content*. It is well understood that a trade secret is lost if someone else makes the same discovery independently, or if someone else discovers the trade secret through reverse engineering and chooses thereafter to make it public.⁵⁹ First, trade secrets, when shared, are protected by all the remedies that are made available in connection with other contractual promises,⁶⁰ but, although the point has been suggested,⁶¹ it is a mistake to think that trade secrets are strictly and solely creatures of contract. Thus a single person can hold a trade secret for his own use, without sharing it with another individual. The protection surely remains against, for example, theft, but it can hardly be said that the protection arises out of contract, given that no one can enter into a contract with himself. Next, it is quite clear that trade secrets are regarded as property for the purposes of the takings clause.⁶² Finally, a trade secret is normally protected so that its owner can enjoin its use by a third party who takes it with knowledge that it has been appropriated from its owner, in what counts as a form of property protection for a true owner against a taker with knowledge of the true owner's interest.⁶³ In sum, a trade secret is a bit like a lease: In

53. See, e.g., *Pavesich v. New Eng. Life Ins. Co.*, 50 S.E.2d 68, 72-74 (Ga. 1905); cf. *Int'l News Serv. v. Associated Press*, 248 U.S. 215, 234-45 (1918).

54. N.Y. Civ. Rights Law § 50 (McKinney 1992) (recognizing the right in cases where the name or likeness is used for "advertising purposes").

55. *Roberson*, 64 N.E. at 443.

56. For a nice account of the argument, see *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480-93 (1974).

57. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 cmt. a (1995) [hereinafter RESTATEMENT (THIRD)].

58. *Id.* § 41.

59. *Kewanee Oil Co.*, 416 U.S. at 476 (citing *Nat'l Tube Co. v. E. Tube Co.*, 70 N.E. 1127 (Ohio 1903)). If he keeps secret the fact that he has broken someone else's secret, then we have parallel trade secrets. *Id.*

60. See RESTATEMENT (THIRD), *supra* note 57, § 41 cmt. d.

61. See, e.g., Pamela Samuelson, *Privacy as Intellectual Property?*, 52 STAN. L. REV. 1125, 1153-55 (2000). But see, e.g., Richard A. Epstein, *Privacy, Publication and the First Amendment: The Dangers of First Amendment Exceptionalism*, 52 STAN. L. REV. 1003, 1035-46 (2000) (denying that the First Amendment insulates from liability persons who knowingly publish the trade secrets of others).

62. See *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1003-04 (1984).

63. See *Desnick v. Am. Broad. Co.*, 44 F.3d 1345, 1352 (7th Cir. 1995).

some ways it counts as a contractual relationship between the lessor and lessee, but in other cases it amounts to the conveyance of an interest in land. Trade secrets also have their origin in property, and thus implicitly adopt a regime in which each person who creates a trade secret creates a property interest in himself.

The rules of acquisition require a bit more refinement in dealing with trademarks and trade names. What can you acquire? Here it becomes a little bit tricky again. Suppose, for example, I invent a board game with trading cards and I call it Monopoly. It seems pretty clear that I have to be able to have exclusive use of the term in order to describe the game, but you're going to be very reluctant to say that when I acquire that particular term it disappears from the commons so that no economics professor is now allowed to talk about competition and monopoly because of my trade name. What we do, therefore, is invoke the idea of secondary meaning, and I am allowed to keep that name only insofar as it no longer functions as a simple description; I "must show that the primary significance of the term in the minds of the consuming public is not the product but the producer."⁶⁴

At this point it becomes crucial to make sure that the name itself never falls back into the commons. The Coca-Cola name (at least the first part) is worth billions of dollars, so that it is no surprise that the company undertakes arduous efforts to be sure that it does not become a generic term. The stakes here are enormous because a tradename like Coca-Cola is capable of indefinite propagation so that its value can far exceed that of any plot of land or improvement. Owing to the billions that are at stake with the preservation of the name, it is not just a matter of politeness that waiters ask "Would Pepsi do?" when given a request for a "Coke." Indeed, it is a sign of the incredible power of the secondary meaning of a name that in context it simply drives out all references to other common meanings of the term. No one who orders a Coke thinks of the residue from coal production or cocaine (although it is said to have been part of Coke's original formula). The key point here is that the rules of acquisition are rightly kept selective so that we can keep an efficient mixed regime in which generic terms and specialized terms operate side by side.

The rules of acquisition are in general relatively easy for a copyright system, at least when we deal with the typical forms of literary or musical properties. These are distinctive in themselves and often the critical question is whether it is worthwhile for the owner of a poem of dubious merit to register it for protection. But the distinctive nature of the words in question make it relatively easy to determine the scope of the copyright protection, so that registration, although not strictly necessary, is routinely available. When obtained it serves as a presumptive validation of the copyright,⁶⁵ and registration is strictly required in order to maintain a suit for copyright infringement.⁶⁶

Yet it is quite clear that the most difficult area for the rules of acquisition are those that pertain to patent. As with water, for example, the initial question is whether we should allow the creation of private-property interests at all. The patent law restricts the award of a patent to an invention, which means "any new and useful process, machine, manufacture, or composition of matter," together with new and useful improvements on them.⁶⁷ These words may appear to be comprehensive in their

64. *Kellogg Co. v. Nat'l Biscuit Co.*, 305 U.S. 111, 118 (1938).

65. 17 U.S.C. § 410(c) (1994).

66. *Id.* § 411(a).

67. 35 U.S.C. § 101 (1994).

import, but they are designed to exclude at a minimum, as noted above, ideas and general laws of nature, which are thought to belong to the common stock of mankind no matter when and how discovered. The clear implication of this decision is the judgment that every one is better off in the long run if the Pythagorean theorem or its equivalent is available to anyone for study and use. Think of the complexities that would result if the law were otherwise, given the dozens of separate proofs that have been used to establish the theorem. Yet once it is clear that the law imposes some boundaries on permissible patents, it necessarily and predictably becomes a difficult question to decide which kinds of algorithms and the like are subject to protection.

But deciding that a certain process or device is patent eligible is only the start of a complex requirement. The basic statutory language just quoted indicates that an invention must be useful to be patented.⁶⁸ Those of us who are uninitiated in the law of patents might be of the view that no one would go to the expense to patent any device unless he thought it had some utility. Nonetheless there are occasional cases in which the contingent nature of the benefit of an invention at the time of the patent application has doomed its eager would-be owner.⁶⁹ Utility itself is not enough for the patent, for the law is always worried about the creation of a monopoly which necessarily reduces the ability of all comers to utilize a thing once it is discovered. So even with respect to those items that prove themselves patent eligible, the grant of a patent takes place only as part of a familiar bargain: In exchange for a limited monopoly, the inventor has to disclose enough information about the patent so as to allow other individuals to build on the disclosures.⁷⁰ There must be a complete description of the invention that is sufficient to enable others with ordinary skill in the art to reproduce the invention in question.⁷¹ In addition, the invention has to represent some distinct advance over the prior art, which requires the patent application to prove the novelty of the invention (i.e., that it was not a matter of public knowledge prior to filing, and furthermore that the invention itself was nonobvious over the prior state of the art in the field).⁷² The nature of this issue makes the registration system under the patent law a vastly larger inquiry than it is with its sister field, the law of copyright. It is no accident that a separate administrative structure (the U.S. Patent and Trademark Office) and a separate appellate court (the Federal Circuit) have developed in order to deal with the highly specialized issues in this field.

Any worthy account of these issues could occupy the better part of a lifetime, and so in this context I shall comment only briefly on a feature of the patent system: the rule of priority. The point here is one that was raised in connection with physical property, where much of the uneasiness about the first-possession rule for the occupation of land or the capture of animals concerns the *gap* between the first and second entrant to the property.⁷³ In its conception, the rule is strictly *ordinal*, so that the size of the gap does not matter. It has been therefore a matter of some concern as

68. *Id.*; see also *Brenner v. Manson*, 383 U.S. 519, 528-29 (1966).

69. See, e.g., *Brenner*, 383 U.S. at 528-36.

70. *Universal Oil Co. v. Globe Co.*, 322 U.S. 471, 484 (1994).

71. 35 U.S.C. § 112 (providing statutory conditions for specification and enablement).

72. *Id.* § 103. For the leading exposition of the nonobviousness test, see *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

73. See *DUKEMINIER & KRIER*, *supra* note 25, at 3-15 (reprinting *Johnson v. M'Intosh*, 21 U.S. 543 (1823) (discussing the first-possession rule for occupation of land)).

to why the outcome of a close race (like the outcome of a close presidential election) should result in such a sharp discontinuity whereby the winner takes all. In some cases the predictable closeness of the race has led to alternative systems of property allocation, most notably auctions of the spectrum.⁷⁴ The first-possession rule could not work today when any of a thousand parties could instantly occupy the entire spectrum with their electronic devices.

That same issue arises in patent law, where the difficulty is ameliorated in part by the novelty and nonobviousness requirements, which are designed to put some distance between the successful inventor and the field. But even those requirements do not handle the situation where two inventors file applications for identical inventions, both of which represent major advances on the field, but which are indistinguishable from each other. Socially, it may not matter which of them gets the invention, but obviously it matters to the parties, and the question is how this matter sorts itself out. In just about every other place in the world, the race goes to the swiftest: The first party to file is the one who gets the patent if all the other requisites of the application are met.⁷⁵ But in the American system the rule is more complicated. To be sure, the presumption is in favor of the first to file, but it can be overcome if a rival applicant is able to show that he was the first to develop the relevant "conception" (which must be of course more than a simple idea), and then used reasonable diligence to press that invention to its conclusion.⁷⁶

Note that the choice of this rule does nothing to obviate the closeness of these patent races. The first to conceive an idea may have done so only hours before the second. So the question is: Why incur the very hefty administrative expenses to run this system when, as in so many other cases, it appears as though simple rules should work as well for a complex world?⁷⁷ The usual argument in this connection is that the more complex rule will work to the benefit of the smaller inventor who could easily take a longer time to push his invention through to completion. But as an initial point, it is hard to see why we should want to subsidize the small inventor any more than we should wish to subsidize the small farmer. And even if we did, the current law is an odd way to achieve that result. The rule in question does not limit the benefit of the first-to-conceive rule to small inventors, assuming that we know who they are. Any corporate inventor (or more accurately, any individual inventor who assigns his invention to the corporation for which he works) can also take advantage of this rule which applies in all disputes, including those between small inventors and those between the assignees of corporate employees. The sheer war of attrition that this rule invites should dissuade all but the hardiest to favor it. This is one case in which, prospectively, we should put ourselves in line with the rest of the world, and should be able to make the transition to the simpler rule with relative ease.

74. Lawrence J. White, "Propertyizing" the Electromagnetic Spectrum: Why It's Important, and How to Begin, *MEDIA L. & POL'Y*, Fall 2000, at 19.

75. See MARTIN J. ADELMAN ET AL., *CASES AND MATERIALS ON PATENT LAW* 313 (1998).

76. See 35 U.S.C. § 102(g).

77. See generally RICHARD A. EPSTEIN, *SIMPLE RULES FOR A COMPLEX WORLD* (1995). This question is the constant theme of the book.

II. RULES OF EXCLUSION

This discussion of the acquisition of property rights has already touched upon one central feature of any system of property rights, the right of exclusion. The advantages of exclusion are easily forgotten by people who are too attuned to the unsettling outcomes that often develop under the first-possession rule. But the virtue of exclusion, as noted, is that the vesting of all property rights in a single person makes it possible for that person to engage in the efficient management of the property whether through use or disposition. Anyone who is skeptical of this virtue of sole ownership need simply reflect on the tensions in the normal partnership, or in the endless squabbles that can take place between landlord and tenant or between two tenants of a common landlord. Yet, if it is difficult to resolve squabbles with somebody who has been handpicked, it is all the more difficult for any person to resolve squabbles with somebody who has been quite literally thrust upon him. Exclusivity gives powerful protection against that dreaded contingency.

Yet, as is always the case with all good things, exclusivity has bad features as well. In response, the common law quite sensibly has sought to figure out when exclusion becomes an impediment instead of an advantage. In its most general form, the task is to see if the law can devise rules to mitigate some of the difficulties that are associated with the hard-edged boundaries that seemed so congenial to Blackstone. On this score, the law of nuisance essentially develops two key qualifications to the rule which treats a physical invasion—positive or negative—as the litmus test of liability.⁷⁸ The first of these exceptions allows one party to invade the property of his neighbor,⁷⁹ and the second places restrictions on the uses of one's own property that kick in before any such invasion takes place.⁸⁰ That is, there are deviations in both directions from the categorical boundary rules. The reason for these exceptions is that at the margin, the rigorous right to exclude costs everybody a lot more than it is worth.⁸¹ Accordingly, the best thing that we can do is to soften the rule in the extreme cases while leaving it in force over most of its domain. Unless we are prepared to make that kind of adjustment, the physical invasion test would make it a wrong for people to talk in their own homes if the neighbors could hear so much as a whisper. The reciprocal relaxation of this rule allows both parties to engage in normal conversation, louder by day than by night. But the implicit limit on the rule is one of proportionality, so that no one can blare loud music to the world in the wee hours of the morning. The rule is one of social convention that speaks of "live and let live."⁸² Only infrequently does the rule come into play in litigation. Its great achievement is that it expands effortlessly the effective use that all landowners can make of their property.⁸³

There are more important situations in which the right of exclusivity could create

78. For a more elaborate discussion, see Richard A. Epstein, *Nuisance Law: Corrective Justice and Its Utilitarian Constraints*, 8 J. LEGAL STUD. 49, 60-65 (1979).

79. *See id.* at 85-90.

80. *See id.* at 90-94.

81. *See id.* at 75.

82. *See Epstein, supra* note 78, at 82 (quoting *Bamford v. Turnley*, 122 Eng. Rep. 27, 32-33 (Ex. 1862) (Baron Bramwell)).

83. *See* RICHARD A. EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* 231-32 (1985).

serious economic distortions. The ownership of land, like the ownership of a patent, creates a monopoly of sorts.⁸⁴ In both cases no one else is allowed to use the land or the invention without the consent of the owner. But it would be too hasty to assume that all such ownership creates the distortions in resource allocation that are normally attributed to monopoly.⁸⁵ The key point here is that a legal monopoly will not necessarily create an economic monopoly if some close substitutes are available.⁸⁶ Thus the fact that I own Blackacre may give me a monopoly over that one plot of land, but in most communities the prospective purchaser can seek to buy Whiteacre and Greenacre as well. The ability to go next door forces my return down to the competitive level.⁸⁷ So too with patents: It may easily be the case that one patented process or product has a number of close substitutes available to it, such that even before the patent has expired, the price that the patent holder can charge is effectively constrained. (Indeed, one reason why we do not want to make it too difficult to perfect new patents is the awareness that delay will extend the economic monopoly position of prior patent holders.)⁸⁸

Yet in some situations, it may well be that the ownership of a key parcel of land does not create a single entrant into a competitive market. Rather, if the land is critically located, it could give its owner a blockade position over the entire community. That outcome can happen quite routinely when land is needed for highways and railroads, for then the squarish configuration of most plots of land blocks off the arteries of transportation and communication. A given purchaser faces one problem when he has to buy from A *or* B *or* C. He faces quite another problem when, in order for the project to be successful, he must buy from A *and* B *and* C. Now the single holdout who refuses to sell has it within his power to prevent the construction of the needed network. For these particular uses the costs of exclusion now look to be far higher than the costs of coordination. Blackstone's vision of ownership as the sole and despotic dominion of property no longer squares with a sensible account of private property. But to his credit, Blackstone backed off this rhetorical flourish in giving an early and elegant explanation of why it was necessary that the state have the power of eminent domain to deal with the need to assemble the land needed for highways.⁸⁹

84. See RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 43-51 (5th ed. 1998).

85. See *id.* at 301-05; see also Rebecca S. Eisenberg, *Patients and the Process of Science: Exclusive Rights and Experimental Use*, 56 U. CHI. L. REV. 1017, 1038-39 (1989).

86. See POSNER, *supra* note 84, at 301.

87. See *id.* at 306-08.

88. See *id.* at 43; Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 266, 269-70 (1977).

89. 1 BLACKSTONE, *supra* note 13, at *135. Blackstone wrote:

So great moreover is the regard of the law for private property that it will not authorize the least violation of it; no, not even for the general good of the whole community. If a new road, for instance, were to be made through the grounds of a private person, it might perhaps be extensively beneficial to the public; but the law permits no man, or set of men, to do this without the consent of the owner. . . . In this, and similar cases the legislature alone can, and indeed frequently does, interpose, and compel the individual to acquiesce. But how does it interpose and compel? Not by absolutely stripping the subject of his property in an arbitrary manner; but by giving him a full indemnification and equivalent for the injury sustained. The public is now considered as an individual, treating with an

When we turn to various forms of intangible property we see the same sorts of tradeoffs at work. As I just noted, for land-based resources, it is necessary to have both private property (for farms) and a form of open-access property for highways. That same distribution of interests arises in the modern law of cyberspace. This past summer I had the honor of working on an *amicus curiae* brief in the well-publicized dispute between eBay and Bidder's Edge—a case which is now on appeal in the Ninth Circuit.⁹⁰ This case focused on the choice of legal rules that should govern a new business known as auction aggregation.⁹¹ Now an auction aggregator is not some evil kind of person who snatches things out of auctions, but rather is a firm that composes a comprehensive list of items in a given class that are available for sale from multiple auction sites.⁹² The aggregator is not a seller of any of the items available on any of the particular sites, but he does perform the useful service of allowing potential customers to compare items within a given class that are available for sale by several different suppliers.⁹³ The improved search could easily make these markets more efficient, and the compensation that the auction aggregator receives for his pains are the eyeballs that come through his site that fuel the advertisement that is sold.

Naturally, the aggregation business is of concern not only to the aggregators and their customers, but to the individual auction sites from which the information is collected. These auction sites are concerned about the way in which the information is collected and also about the way in which it is displayed. The question then arises as to how aggregators and auction sites can form harmonious relations that serve their mutual objectives. The eBay/Bidder's Edge dispute was triggered by the decision of Bidder's Edge, the aggregator, to enter and collect information on eBay's site without eBay's permission.⁹⁴ The question here is whether eBay can maintain an action for common-law trespass on the ground that it has (at least presumptively) exclusive rights to determine who enters its site.⁹⁵

The position that I take (and it is not always followed)⁹⁶ is that the rules that govern ordinary space provide a good template to understand what is at stake in cyberspace. The usual division between private property and the commons in physical space has streets as common elements, and the stores along those streets as private property. That same division of responsibility could be carried over to the web, where the sites are the private properties (complete with their Internet addresses) that are located alongside the Internet highway. In effect, the usual rules that require the consent of an owner to enter his property should apply presumptively in cyberspace as in real space. After all, Sotheby's does not have to give a list of the items that it plans to offer for the next sale to all brokerage houses unless it chooses to do so, which it usually does. That same logic applies to a firm like eBay, whose interests are not

individual for an exchange.

Id. Clearly, it is the risk of holdouts that drives Blackstone to acknowledge the use of the eminent domain power.

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

91. *See id.* at 1061.

92. *See id.* at 1061-62.

93. *See id.* at 1062.

94. *See id.*

95. *See id.* at 1065-66.

96. *See* LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE 123-41 (1999).

wholly adverse to those of potential auction aggregators, given that eBay benefits to the extent that the aggregator brings customers to its site that might not go there if they had to crawl between sites one at a time on their own hook. Therefore, as a first approximation, the usual form of property-rights regime—you can only enter with consent—seems to apply here.

The hard question is whether that regime should be displaced with a regime that essentially allows all aggregators to troll (quite literally they send in “spiders” to gather up the information)⁹⁷ these auction sites for free, so long as they do not disrupt the operation of the local site that they enter. In some cases these entrants could place constraints on the ability of the auction site operator to handle routine business, especially if the trolling takes place in certain ways that put greater strain on the system.⁹⁸ These difficulties could be compounded if probes from several auction aggregators enter the site simultaneously.⁹⁹ One evident consequence of trolling is that it can cause some traditional forms of physical disruption in the operation of the tangible equipment that undergirds the site.¹⁰⁰

I do not, however, regard this as the major cost of a rule that allows entry at will until the auction site crashes, or at least moans in protest. I also think that allowing entry at will cuts off at the root any possibility of developing sophisticated contractual relations between the parties on how and when aggregators may access the various auction sites (or more accurately, the physical hardware that undergirds them). The whole point of an absolute right to exclude is that it allows the single owner to coordinate the entry of lots of other people to the property in question. In general, I think that private voluntary arrangements will outperform forced interactions in the long run.¹⁰¹ These contracts are common in the industry, and cover a wide range of topics that are not caught by any rule that allows entry at will: What happens with assignment? What cash is paid by the aggregator for using the site, and to the aggregator for bringing new customers to it? Too much local information is left unused when the legal system prescribes the crude system of entry without further ado.

Therefore the rules for trespass to real property should be carried over, subject to this caveat: If any auction aggregator could show that certain contractual provisions inhibit the operation of a competitive market, then these provisions could be modified or eliminated under the standard rules of antitrust laws.¹⁰² The entire matter therefore is really one of initial approximation, followed by subsequent corrections, which take into account the inefficiencies associated with a property right that confers exclusive rights on its holder. The carryover between physical space and cyberspace seems precise. There may well be a place for Blackstone’s sole and despotic dominion after all. At root, the Internet is not intellectual property. Rather, it is a form of intangible common property that has the same properties as streets, rivers and telephone wires.

97. See *eBay*, 100 F. Supp. 2d at 1065 n.2.

98. See *id.* at 1064-65.

99. See *id.* at 1066.

100. See *id.* at 1071.

101. See generally Robert Merges, *Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations*, 84 CALIF. L. REV. 1293 (1996) (arguing that intellectual-property-rights licensing should be voluntarily negotiated, not subject to statutory compulsory licensing).

102. See, e.g., EPSTEIN, *supra* note 83, at 123-27.

Which leads us to the question: What about intellectual property proper?

Even when we leave the world of networking, it does not follow that rights of exclusion should always be so strong that no one else can use my property without my consent. As with physical property, we have learned with some caution to understand that the same kinds of qualifications that are appropriate to the exclusive rights to tangible property often carry over to intellectual property as well. To give but one illustration, recall our earlier discussion of the right of privacy, where I noted how the law protects me in the exclusive use of my name and likeness.¹⁰³ The qualification for commercial use allows me to decide whether to push Brillo pads or SOS pads, but the need to allow other people to speak their minds about my conduct does not allow me to silence any critics who wish to take my name or likeness in vain. Anyone can say, "That was a terrible lecture that he gave yesterday on intellectual property."

The entire system of fair comment rests on the insight that in the long run it works to our common advantage to give everyone a privilege to speak about people who are claiming exclusive rights in their own names and likenesses for commercial purposes. It is as though we have created a large, but useful privilege for encroachment on someone else's domain. The privilege bears at least a passing resemblance to the privilege of private necessity—that is to use someone else's land when necessary to prevent imminent danger to life and limb.¹⁰⁴ There is of course this key difference: The privilege of necessity is generally regarded as "conditional" so that the entrant has to pay compensation.¹⁰⁵ That solution may be viable when there are infrequent incursions of private space that may generate substantial losses, but that compensation requirement becomes manifestly intolerable when the privilege of fair comment is exercised by everyone about everyone on a routine basis.

The bottom line is that the privilege of fair comment is large enough to take the same thing (name and likeness) and subject it to two regimes—one common and one private—that operate side by side, wherein the former allows for the development of natural skills and talents, and the latter facilitates the cultural and intellectual commerce and exchange needed for a vibrant society. Yet this common-private division is so ingrained in the general habits of our minds that we do not expose ourselves to a vast psychological hemorrhage as we move back and forth between the commercial and the noncommercial domains. This legal regime reduces so many frictions of everyday life that we simply accept it as a matter of course. Whether the categorical division is done by common law or by statute is mere detail.

This generous berth for public discourse also plays a large role in the law of copyright. If somebody wishes to comment on my great literary work, it is impossible for him to critique the work on the one hand and not to discuss any of its contents on the other. Once again the law creates a generalized privilege independent of consent that allows the critic to take some small passages of the work representative of its qualities in order to praise or criticize it.¹⁰⁶ Nor is the critic ever required to purchase

103. See *supra* text accompanying notes 45-55.

104. See *Vincent v. Lake Erie Transp. Co.*, 124 N.W. 221 (Minn. 1910). For a more detailed discussion, see RICHARD A. EPSTEIN, *TORTS* §§ 2.14-15 (1999).

105. See RESTATEMENT, *supra* note 14, § 197 cmt. j.

106. See, e.g., POSNER, *supra* note 84, at 47-48 (discussing the fair-use doctrine as it applies to copyright law).

that right.¹⁰⁷ The trade-offs involved here make perfectly good sense. It seems quite clear that a critic who quotes a few lines from a novel or even a short story will not be able to sell that story as his own, and accordingly the critic does not pose a direct competitive threat. To require him to compensate the copyright holder not only throws a monkey wrench into routine transactions, but it also works a disservice to copyright holders as a class. The credibility of all critics will be hopelessly compromised if it is known that they are free to ply their craft only with the blessings of the object of their criticism. Who would take at face value the praise heaped on an author by a critic who had to purchase his right to speak at all? The tradeoffs seem so clear that we accept them by habit, often without explicit appreciation of the clever way in which the entire system has been put together. Once again it looks as though we have come close to an optimal equilibrium between public and private rights in intellectual property.

III. DURATION

The last of the problems that I wish to address concerns the duration of a property interest. This question does not arise in dealing with common assets because no one is allowed to put down roots. Thus, the use of a highway lasts only so long as the user continues on his journey, and the blankets that individual bathers put down on the beach are all removed at sundown. But the question of duration clearly does arise when we shift from usufructuary interests in the common to ordinary property interests. In order to think about the duration of property rights in connection with intellectual property, it is again appropriate to ask this question: Why does Blackstone's view of the fee simple allow the owner to occupy the land forever?

The quickest way to the answer is, perhaps, to ask this question: What harm is there in allowing the first possessor to keep the land forever? The pain of exclusion to others is keenly felt if the land is kept for ten years, which leads us to the conclusion that the additional pain is not likely to be all that great beyond ten years, assuming that we could identify the particular person who thinks that the property would be his if it were not already taken by its current owner. Outsiders then are not likely to complain all that much, especially if they are allowed to keep the property that they own in perpetuity as well.

Yet the case is stronger than this simple negative account suggests, for there are difficulties that do attach once we say that the acquisition of land by first possession gives the possessor only a limited form of ownership, whether measured by lives or by years. The first of these questions is simple enough to state: Just how long should a term be? If stated in years, it is sure to be arbitrary. There is no particular reason to think that ten years is better than 100 or 1000, especially when we know that the duration of leases goes all over the lot. Perhaps we could tie it to the life or lives of various human beings, but does it make sense that a person aged thirty should gain land for a far longer period of time than a person aged fifty? Do we cast the wife out on the street at the death of her husband, the first possessor?

The difficulties here are more than aesthetic. Suppose we hold that the land reverts back to the common at the death of the original possessor. This makes the situation quite intolerable if the land has been alienated in the meantime. Do we hold that the

107. *See id.*

purchaser can now acquire a new title by adverse possession? Or do we require him to leave the land so that we can have yet another free-for-all to determine who is entitled to gain possession of the land? That seems exceptionally odd, for if we are uneasy about acquisition by occupation the first time around, why should we be so confident in that rule as to engage in pointless squabbles that require its invocation over and over again?

Worse still, ask the question of how the initial occupant is supposed to improve the land once he knows that his possession will end at some future time. Here it is commonplace to observe that real estate improvements are in general lumpy, so that it may be efficient to build a new house that will last for twenty or for fifty years, but hard to build one that should last just thirty-five years. What then does the owner do if he knows that the period remaining on a lease has a certain or expected duration of thirty-five years? Either he builds too cheaply and has to incur further costs down the line, or he creates value that others will capture once the property returns to the common. Neither of these alternatives makes any sense at all. In leases, where the tenant in possession creates improvements, the usual rule requires the landlord to compensate the tenant for the unused life of the improvement if the lease is terminated.¹⁰⁸ (Note that the parties will not enter into a lease at all if the property has highly specific uses tailored to the distinctive occupation of the possessor.) However there can be no deal made with an undifferentiated mass of individuals.

On balance, then, there are many good reasons why the occupation of land creates the noblest estate of them all, the fee simple absolute in possession. Therefore the obvious question is why we might choose to depart from this system when we move to various regimes of intellectual property. Here, as before, there is no universal answer to the question, for much depends on which kind of intellectual property is at stake. To make the inquiry more concrete, start with an intellectual property case where it seems unwise to keep to the land paradigm. Let's assume that the question is to determine the duration of a copyright or a patent. The current law takes place within a constitutional framework in which both patents and copyrights come by grant from the federal government, where they are required to be of *limited* duration.¹⁰⁹ The judgment of limited duration seems to have been clear for a very long time, even if the actual choice of the copyright or patent period is not, by the very terms of the Constitution itself. Today, the typical period for a utility patent is twenty years.¹¹⁰ The typical period for a copyright used to be life plus fifty years,¹¹¹ but it is getting progressively longer. Why is it that we choose to depart from our Blackstone model? The first reply is that perhaps all this is a mistake. After all, any of the problems that arise in timing the duration of property in the physical world could arise as well in connection with intellectual property. If one has an invention that he knows is his for only ten more years, it will place a crimp in his decisions on just how aggressively to market the technology. Let his choice be for either a five-year or a fifteen-year program, and we replicate the difficulties that we had with investments in real estate improvements. Similar examples could be contrived to deal with the promotion of

108. *See id.* at 82-84.

109. *See* U.S. CONST. art. I, § 8, cl. 8 ("To promote the Progress of Science and the Useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.").

110. 35 U.S.C. §§ 154-156 (1994).

111. 17 U.S.C. §§ 302-304 (1994 & Supp. V 1999).

literary works. There is, therefore, no way to deny the inconveniences. The response comes in two parts: The first asks whether the other disabilities are of equal severity with intellectual property as with land, and the second asks whether we can find some offsetting advantage with intellectual property that is not found with land.

These questions should lead us to the first observation, which asks what happens to the material covered by the patent or copyright at the expiration of the term. With land, the fear was a free-for-all in the effort to gain possession. After all, the land itself could not operate profitably inside a common. But with patents and copyrights, this cost disappears, for there is no reason to posit a world in which the invention or literary work has to have a single owner at all. The usual theory behind the standard "patent bargain" is that the holder of the patent gets the exclusive monopoly in the short run in exchange for the disclosure of relevant information about the invention that can be used on expiration of the patent.¹¹² Once the term of years is over, the patent simply goes into the public domain where all can use it side by side.¹¹³ Inventions, unlike land, do not lose their value because they are used by many.¹¹⁴ They are, at least in one dimension, nondepreciable assets. There is no second-period problem on how to coordinate use of the patented or copyrighted material. Hence the removal of the legal monopoly improves social welfare in the second period by encouraging the use of the invention by those who were unwilling moments before to pay the monopolist the appropriate licensing fee. The same logic applies to copyrights. Now everyone can perform Mozart operas without fear of retaliation.

Hence our first advantage leads to a second. The end of the monopoly leads to a wider dissemination of the otherwise protected information. If the marginal cost for the additional use is zero, then ideally we would like for no one to be able to charge. The only reason why we cannot "will" ourselves to that conclusion at the outset is that a zero rate of return means a rapid reduction in the number of inventions, all of which are costly to design and develop.¹¹⁵ In some cases they will not be made at all, while in other cases they will be kept inefficiently as trade secrets.¹¹⁶ Therefore the world of patents and copyrights forces us into a fundamental tradeoff between two unpleasant truths: If we secure free dissemination, we reduce the odds of creation in the first place, but if we bolster the odds of creation, then we may crimp unduly the spread of useful ideas and technologies.¹¹⁷

The precise line between the two perils is not certain. What is certain is that virtually every legal system that has had to deal with the creation of monopoly tends to think, as does ours, that a perpetual monopoly gives too much by way of inducement and not enough by way of subsequent utilization.¹¹⁸ The problem, I hasten to add, is not unique to patents. It comes with the creation of any form of monopoly. To give one very physical example: Finding the ideal duration for a patent is not much different than finding the ideal duration for a private franchise of a bridge whose construction the state authorizes over a public river. In the ideal monopoly, the bridge has a positive cost, but once built it will last forever with a zero marginal cost

112. See Eisenberg, *supra* note 85, at 1024.

113. See *id.* at 1022-23.

114. See POSNER, *supra* note 84, at 43-47.

115. See Eisenberg, *supra* note 85, at 1025.

116. See POSNER, *supra* note 84, at 43-44.

117. See Eisenberg, *supra* note 85, at 1025.

118. See POSNER, *supra* note 84, at 304-05.

for each additional passenger who crosses it. What are the ideal terms of franchise for the construction of that bridge? This problem has made its way into constitutional law, in the famous case of *Charles River Bridge Co. v. Warren Bridge*¹¹⁹ decided in 1837. The precise legal issue in that case was whether a franchise that Massachusetts granted to the Charles River Bridge Company was intended to be an exclusive or a nonexclusive franchise.¹²⁰ If it were the latter, then Massachusetts was within its power to grant a second charter over the bridge to a rival corporation, even if it resulted in devastation to the revenues of the initial company.¹²¹ The sight of these two bridges side by side over the Charles River bears mute testimony to the divided outcome in that case, as the Court split five to two, with Justice Taney writing for the majority holding that the default rule of nonexclusivity was not rebutted by the terms of the contract,¹²² while Justice Story writing for the minority took the opposite position.¹²³

As stated, the *Charles River* case only dealt with a question of contractual interpretation and left open the larger question of what should be done when silence is no longer an option. Does the well-run state grant an exclusive or nonexclusive arrangement, or opt for some intermediate position in which the first bridge company receives a monopoly for some limited period of time, after which the state may franchise a new entrant? Historically, the franchises of the nineteenth century often followed this intermediate position in an effort to find the optimal set of terms.¹²⁴ The tradeoffs involved are easy enough to state, but hard to make. A simple stone bridge costs a great deal to build and virtually nothing to operate and maintain. There is no perfect solution regarding how to decide whether to build the bridge or how to finance its construction once the decision to build it is made. One possibility is to have the state build the bridge itself, so that all travelers can use it from the outset. But if the state has limited entrepreneurial skills, then public construction may be more expensive than private construction. Even if it is not, it is still difficult to decide whether or not to build the bridge at all. If the bridge costs \$1 million to build, but generates over its life only \$800,000 in net consumer surplus, then it should not be built at all. However if the state finances its construction from public revenues and charges nothing for its subsequent use, then just how does it know that total public benefits justify the cost of its construction?

Having the bridge built by a private franchisee obviates that problem, for it will only engage in construction if it expects its total revenues to exceed its total costs. But the solution of one problem creates yet another. If the franchisee is not allowed to charge rents, then it has no incentive to build the bridge at all. Yet, if it is allowed to charge market-rate rents under an exclusive contract, then it can easily garner

119. 36 U.S. 420 (1837). For discussion of the economics of these transactions, see HERBERT HOVENKAMP, *ENTERPRISE AND AMERICAN LAW 1836-1937* (1991); see also Ronald H. Coase, *The Lighthouse Economics*, in *THE THEORY OF MARKET FAILURE: A CRITICAL EXAMINATION* (Tyler Cowen ed., 1988) (discussing government-granted franchises in the context of lighthouses).

120. *Charles River Bridge Co.*, 36 U.S. at 430.

121. *Id.*

122. *Id.* at 549.

123. *Id.* at 646-47 (Story, J., dissenting).

124. See HOVENKAMP, *supra* note 119, at 113-14.

monopoly rents that promise an excessively large return on investment.¹²⁵ The downside to this solution is that it shuts out any individual traveler who attaches a positive value to the use of the bridge that is lower than the toll set by the franchisee. Therefore, unless the monopolist can discriminate, the bridge will be underutilized relative to its potential. A compromise solution grants the franchisee the right to charge high rates—sometimes regulated, sometimes not—for some limited period in order to allow for the recovery of the front-end costs.¹²⁶ Thereafter, the allowable tolls are sharply cut or eliminated so that other users who were previously excluded from the bridge are now allowed to use it as well, at least so long as a nascent congestion problem does not reduce the value of its use to high-demand users.

Now bridges and patents may look as though they have little in common, but in this context appearances are misleading, because at root both present the same basic problem of high front-end cost coupled with zero (or very low) marginal costs for use. One possibility is to use public finance for all inventions so that they can immediately go into the public domain, but the strangling effect on innovation makes this a most unappealing solution.¹²⁷ A second possibility is to have the state nationalize promising patents after their creation. This accomplishes two things: First, it preserves the incentives for private invention, and second, it allows the free use of the patent, which insures its widest possible dissemination. Yet the drawbacks of this scheme are enormous. The public takeover of a patent operates like an eminent domain proceeding in which the valuation problems are acute, especially since the value of a patent often depends on how effectively the good is developed and how the patent relates to other inventions. In addition, there are literally hundreds of thousands of patents annually, so someone has to make a decision as to which of these to condemn and why. No sane person wishes to vest the government with this much power. So we are back to the franchise-like solutions in which we make a social trade similar to that made with the charter of a bridge: The creator of the invention gets a limited monopoly after which the invention goes into the public domain.¹²⁸ The most difficult task is to determine the appropriate length of the patent. That decision in turn cannot be made in isolation because it depends in part on the breadth of the patent that is obtainable, and the nature of the disclosures on specification and enablement made in order to obtain that patent.¹²⁹ The upshot turns out to be a period of twenty years for the general, or utility, patents.¹³⁰ That position itself represents a crude compromise because of its one-size-fits-all nature. That period is far longer than the useful life of most software innovations, and therefore has little effect on the operation of the market. But that same period is far shorter than the useful life of many major pharmaceutical innovations, which take on a second life as generic drugs precisely because of the shortness of the patent period.¹³¹

The choice of the correct period is therefore something of a guess. The one point of reference on which it is possible to find solid agreement is that the optimal length of a patent is in general shorter than that of a copyright, at least for the usual literary

125. *See id.* at 111.

126. *See id.* at 112.

127. *See Eisenberg, supra* note 85, at 1025-26.

128. *See id.* at 1038-46.

129. *See* 35 U.S.C. § 101 (1994).

130. *See id.* §§ 154-56.

131. *See Eisenberg, supra* note 85, at 1023.

work.¹³² The inventor may (or may not) have a flash of genius, but in hot areas that attract extensive resources, most inventions will be made sooner or later by someone else. It is commonplace to observe conscious races to invent the first telephone or laser.¹³³ Therefore, the shorter period of time is used in recognition of the more limited nature of the social contribution.

That said, the sonnet that is left unwritten by the next Shakespeare will never be written at all. Nor does the creation of a longer period of protection do anything to preclude other poets from writing their own compositions to their hearts' content. Hence the period of time for a copyright (now set at life plus seventy years)¹³⁴ is longer than that set for a patent—and perhaps too long. Furthermore, in this context, the other elements of the patent bargain are not relevant at all. No one knows, for example, what it means to disclose how you create a poem so as to enable other individuals to write their own. You publish the poem, and all this other disclosure rigamarole is rather irrelevant. On the other hand, whereas in the patent you have no reason to allow the “fair use” of somebody else’s invention, that defense is absolutely critical in the world of copyrights for the same reason that it is in cases of the appropriation of name and likeness (e.g., it is hard to review a book without copying some of its contents).

To complete this brief survey, other forms of intellectual property invite a return to the Blackstone’s land model of infinite duration. For example, what sense does it make to the holder of a trade secret to disclose its content after twenty years? No particular purpose seems to be served, because the holder does not exclude anyone else from inventing that same thing himself.¹³⁵ Even if the present holder keeps that secret in perpetuity, then someone else can develop that same secret process, for example, and, for all we know, neither party (nor the rest of the world) knows that the other party has it. There is no problem that I can detect with the preservation of parallel trade secrets, even if their value diminishes because multiple parties hold them. If, however, that secret is leaked to even one source, then its contents fall into the public domain causing all holders of the secret to lose their comparative advantage.¹³⁶ With that constant risk of erosion, what gain is there to impose time limitations on secrets that the state may not even know fall into the possession of private parties?

Similar considerations dominate in the law of trademarks and trade names. Let a manufacturer come up with a clever name for a new car—the Zephyr or whatever—and thereafter it is hard to envision any public gain from putting this name into the public domain after the passage of say, twenty years. The key point about branding is to develop a simple name or mark that avoids confusion and allows potential consumers to make decisions in reliance on the name or mark even if they cannot make an intelligent independent assessment of the product to which that name or mark is affixed.¹³⁷ A strong brand allows the technical ignoramus to purchase with

132. See POSNER, *supra* note 84, at 43-47.

133. See, e.g., *Gould v. Schawlow*, 363 F.2d 908 (C.C.P.A. 1966) (requiring due diligence in completing an invention).

134. See 17 U.S.C. § 302(a) (Supp. V 1999).

135. See POSNER, *supra* note 84, at 45-46.

136. See *id.*

137. See *id.* at 49-50.

(more of) the confidence of the sophisticated consumer. To put the brand name in the public domain destroys its value to the original holder of the name, and it does nothing to add value to any of the countless firms that might wish to use it. If every computer company in the land could brand its product with the name "Apple," then no one gets the benefit of the brand name. The social consequences of putting the brand into the commons thus are wholly different from those associated with placing patents and copyrights in the public domain at the time of their expiration. The free use of these writings and inventions by one person does not render them worthless when used by another, as is the case with ostensible regimes of open branding. Therefore, the case for putting patents into the public domain is extraordinarily powerful, but the case for putting trademarks and trade names into the public domain is extraordinarily weak. For trade names and trademarks the land model carries over without a hitch.

CONCLUSION

With all this said, it is worth noting in conclusion the common elements to the various forms of intellectual property, once their differences have been duly noted and understood. After these various forms of property have been defined, then it is possible to grant actions to prevent their infringement, which are clearly modeled on actions for trespass for land. It is also possible to allow for the sale, exchange, and licensing of various forms of intellectual property, but it takes an enormous amount of energy to enforce these rules and to make these transactions. My hope is that this lecture will help sensitize you to the multiple issues of system design that arise with all forms of property, real and tangible. Once these are appreciated, then it becomes possible to see the forest through the trees. We can understand how and why these property systems both follow on, and diverge from, the law of land. Once we can make sense of the system in its basic outlines, then we should have within our grasp a set of guidelines that should help us deal with the second-order questions of filling in the details of the system that must cope with billions of transactions and thousands of disputes on a daily basis. It is a mistake to dismiss these general arguments as hopelessly abstract or even wishy-washy. We should not belittle the incremental improvements that come from using sound principles to craft a workable legal system. The success and the glory of any legal system is not how it resolves hard marginal cases, but rather how it sets out the rules that allow most routine transactions to go from cradle to grave without so much as a hint of litigation. The greatest achievement of a lawyer is, in my view, the design of some transaction that becomes standard after its inception. All the while, we must remember that even if sound legal principles do not eliminate every anomaly or answer every single question of system design, they can help us avoid major errors that could carry with them disastrous social consequences. We can live with gray areas, so long as we have black and white, but we cannot live with fundamental flaws in system design. In law, as in medicine, we should still remember that the basic principle is, *primum, non nocere*: first, do no harm.

