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INFORMATION AS PROPERTY: DO RUCKELSHAUS AND CARPENTER SIGNAL A CHANGING DIRECTION IN INTELLECTUAL PROPERTY LAW?

Pamela Samuelson*

Informed by the Enlightenment tradition that influenced the drafters of the United States Constitution, American intellectual property law has generally resisted regarding information as something in which its discoverer or possessor can have a property interest.¹ Trade secret law has long afforded remedies to the possessor of secret information against those who use improper means to obtain the secret and those who disclose it in violation of confidential relationships, but the law has, in general, resisted characterizing the secret itself as property.²

In a similar vein, copyright law does not protect information as such, although it does protect the particular manner in which one expresses information. In general, however, copyright law regards information as public domain material that anyone may use without restriction.³ Patent law also

* Professor of Law, University of Pittsburgh School of Law. This is a revised and annotated version of a paper delivered at the Sixteenth Annual Telecommunications Policy Research Conference held at Airlie, Virginia, on October 31, 1988.


² See, e.g., RESTATEMENT OF TORTS § 757 comments a and b (1939); infra notes 52-56 and accompanying text. Historically, the theft of intangibles, such as trade secrets, could not be prosecuted as larceny. See Coffee, Hush! The Criminal Status of Confidential Information After McNally and Carpenter and the Enduring Problem of Overcriminalization, 26 AM. CRIM. L. REV. 121, 134 (1988).

³ See, e.g., Hoehling v. Universal City Studios, 618 F.2d 972 (2d Cir.), cert. denied, 449 U.S. 841 (1980); see also infra notes 40-43 and accompanying text. Occasionally, appropriation of information about a celebrity has given rise to a successful claim that the celebrity’s “rights of publicity” have been violated. See, e.g., Unlaender v. Henricksen, 316 F. Supp. 1277 (D. Minn. 1970) (enjoining use of data about particular baseball players in a game). In general, however, courts have resisted recognizing such claims. See, e.g., Hicks v. Casablanca Records, 464 F. Supp. 426 (S.D.N.Y. 1978) (use of biographical data about mystery writer in fictional movies about her life not enjoined); Guglielmi v. Spelling-Goldberg Prods., 25 Cal.3d
places information concerning a patented invention in the public domain as soon as the patent issues. A patent merely restricts certain uses of information, for example, in manufacturing the invention, and then only for limited times. Free dissemination of information, rather than its restriction through property rights, consistently has been the goal of the federal intellectual property law regime. This goal has been understood as implicit in the constitutional clause to which the patent and copyright laws trace their heritage in the American legal system. That clause grants Congress the power “to promote the progress of sciences and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”

Despite this recurring theme in intellectual property law, two recent United States Supreme Court decisions classified information as private property. In Ruckelshaus v. Monsanto Co., the Court decided that research data submitted to a federal agency documenting the safety of the submitter's product could be considered “property” within the meaning of the fifth amendment to the Constitution. The Court held that the agency's use of the data in connection with evaluating another firm's product or in making a public release of the data could, under some circumstances, constitute a “taking” of property for which the government must pay just compensation. In Carpenter v. United States, the Court treated a reporter's knowledge of the publication schedule and contents of his own newspaper column as the “property” of the publisher. The Court concluded that the reporter fraudulently misappropriated his employer's property when, based on the information, he bought securities for his own commercial gain, thereby violating federal mail and wire fraud statutes. Neither decision probed the property issue very deeply, or explored its possible ramifications. Perhaps these cases illustrate the old legal maxim: Hard cases make bad law. In both, equitable considerations may have led the Court to stretch existing legal doctrine in order to reach a just result. Or they may merely be aberrations in an otherwise solid legal tradition wherein information cannot meaningfully be char-

860, 603 P.2d 454, 160 Cal. Rptr. 352 (1979) (nephew of Rudolph Valentino not entitled to enjoin use of Valentino's name, and data about him, in television production).
8. Id. at 1003-04.
10. Id. at 321-22.
acterized as property. Perhaps, however, these two cases are harbingers of a new age, a new trend, a new attitude about the legal status of information, one more appropriate to the Information Age that many commentators say we have now entered.12

In the Information Age, information becomes the primary economic commodity, the source of greatest wealth.13 As a consequence, perhaps we have outgrown the Enlightenment tradition which viewed information sharing as the best means of increasing wealth and stimulating innovation. Perhaps unwittingly, the Supreme Court, in the Ruckelshaus and Carpenter decisions, may have initiated and contributed to a transformation in the legal perspective on information as property.

While it may be argued that the time for a changed perspective has arrived, the implications of such a transformation would be nothing short of revolutionary. The upheaval would greatly affect existing intellectual property and communications law regimes.14 The ramifications for social, cultural, educational, and political institutions are almost unthinkably vast.15 Before courts extend these two decisions any further, they should give more thought to the reasons why the law generally has not been receptive to "information as property" claims. Judges should take a closer look at the weighty implications of any characterization of information as property before applying such a doctrine unthinkingly to new cases and contexts.

Designating information as property is not without precedent in the history of intellectual property law. Over seventy years ago, the Supreme Court, in a dispute over the right of a news service to appropriate news from the subscribers of a rival service, decided to characterize the news (surely a species of information) as the property of the gatherer.16 The case, International News Service v. Associated Press, wove property and unfair competition rationales together in a tight mesh. Over time, this case has come to be


14. The Office of Technology Assessment Report is one of the few recent works that attempts to understand the far reaching implications of the new information economy for intellectual property and communications law. See OTA REPORT, supra note 5.

15. The OTA Report also tries to grasp the implications of the information economy for political, social and cultural institutions. Id. at 31-56.

understood principally as an unfair competition case. As we try to understand what the modern decisions granting property rights might mean, their precursor is worth revisiting.

This Article begins by discussing why information generally has not been regarded as property. Next, it analyzes the Ruckelshaus and Carpenter decisions and their rationales for finding property rights in information. The Article then revisits the historic International News Service case and its analysis of the property-interest-in-news issue, with particular focus on Justice Holmes' separate opinion and Justice Brandeis' dissent that both raise serious questions as to the necessity and wisdom of recognizing property rights in news. Finally, the Article returns to a discussion of the Ruckelshaus and Carpenter decisions and their implications for the legal status of information as property in the Information Age.

I. SOME REASONS WHY INFORMATION IS NOT GENERALLY CHARACTERIZED AS PROPERTY

As a matter of common sense, certain characteristics of information make it inherently difficult to recognize property rights in it. For one thing, standing alone, information has no tangible existence. It can, of course, be put in some sort of tangible form, but recording it in a medium does not change its essentially intangible character. A related problem involves the difficulty of defining precisely what we mean by information, and of specifying the types of information capable of being subjected to property interests. Information is almost infinitely expandable and malleable, depending on how

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17. See, e.g., E. Kitch & H. Perlman, Legal Regulation of the Competitive Process 34 (2d ed. 1979) ("The majority opinion in INS stands as the foundation for development of the 'misappropriation' doctrine of unfair competition.").

18. The U.S. export control regulations concerning "technical data" recognize this principle. These regulations require an export control license for exchanges of technical data between U.S. citizens and foreign nationals, without regard to whether the data are in tangible form (written on paper) or in intangible form (as in oral conversations). See 15 C.F.R. § 379.1 (1988). Copyright law, by contrast, only protects works of authorship if they have been "fixed" in some tangible medium. See 17 U.S.C. § 102(a) (1982).

19. "Information" is not an easy term to define with precision. Yet, at least some tentative definition of the term is necessary to address such questions as whether information is the same as or different from data, knowledge, or rumor. For purposes of this Article, information is defined as: discrete items of knowledge of a particular event or situation. See Webster's 3d New International Dictionary 1160 (1981).

20. See, e.g., Terrell & Smith, Publicity, Liberty, and Intellectual Property: A Conceptual and Economic Analysis of the Inheritability Issue, 34 Emory L.J. 1, 25-32 (1985) (discussing the need for specificity before an interest is designated as a "property interest" in connection with an analysis of whether the "right of publicity" is a property right, or some other type of right).
individuals characterize it, and upon their purposes in having or using it. In addition, information is inherently "leaky." It may be shared readily by many people through virtually limitless forms of communication. Consequently, information is very difficult to maintain in any exclusive manner unless kept secret by its discoverer or possessor. Although one can bind another in confidence not to disclose information, that bond is very different from placing a physical object under lock and key. Once someone has obtained information, he or she lacks the capacity to return it to its source. In general, the more valuable the information, the more likely it is that others will want to share it, or to seek ways of using it at odds with the exclusivity its discoverer might wish to exert. Recent scandals over insider trading and situations in which Pentagon officials sold information about military systems to defense contractors to enable the contractors to bid more precisely on government contracts exemplify the considerable value raw information can have in our society.

We are also unaccustomed to thinking of information as the sort of thing that can be property. A legal system implementing a decision to enforce private property rights in raw information would face a formidable challenge in persuading the populace to accept this novel notion, and might face massive problems in administration of the new regime of property rights. Perhaps the very difficulty of conceptualizing the far reaching implications of such a regime explains why the American legal system generally resists characterizing information as property.

One can construct an argument, however, for treating information as property, at least under some circumstances. John Locke's theory of property holds that one can acquire property rights in something not already owned by virtue of the labor expended to gather or produce it. Gathering

22. See Baird, supra note 1, at 413-14 (discussing differences between exclusive rights in tangible things and exclusive rights in information).
23. See, e.g., Goelzer & Berueffy, Insider Trading: The Search for a Definition, 39 ALA. L. REV. 491, 498-510 (1988) (discussing the current insider trading law based on the misappropriation theory, which finds a violation when a person or company misappropriates and uses non-public information belonging to another for their own advantage).
25. See OTA REPORT, supra note 5, at 208-09 (discussing parallel enforcement problems with copyright protection).
26. See J. LOCKE, TWO TREATISES OF GOVERNMENT §§ 27-28 (P. Laslett 2d ed. 1967) (3d ed. 1698). The "sweat of the brow" theory for protecting compilations of information through copyright law, see infra notes 44-46 and accompanying text, seems to reflect the Lockean view, see, e.g., Toksvig v. Bruce Publishing Co., 181 F.2d 664 (7th Cir. 1950). This theory also permeates International News Serv. discussed infra notes 144-59 and accompanying text.
information can certainly require labor, and may, in fact, be a very expensive and time-consuming task. As with other goods obtained through an expenditure of labor, information often has a substantial exchange value. Those who do not have it may be willing to pay large sums to acquire it. This was true long before the Information Age commenced and will continue to be true in any post-Information Age society.

Examining the "information as property" issue from a legal perspective, one can see that information may share some attributes commonly associated with other forms of property. The term property has a flexible meaning in the law, and is often used to describe the holder's "bundle of rights" in something. Depending on the nature of the subject and on the nature of the person's interest in it, the bundle may be thicker or thinner, but need not have a particular thickness to rise to the status of property. While it is difficult to define with precision what we mean by property, it is still possible to make some generalizations about the most important kinds of rights that tend to be found in the property bundle: (1) rights of possession, use, and enjoyment; (2) rights of transfer; and (3) rights to exclude others.

Information cannot be possessed in the same way that one can possess land or a jewel, but it does not unduly strain the definition of the word to say that a person can "possess" information. Holders of information also may use, enjoy, buy, and sell it, give it away, or license its use. At least when those who know certain information can be persuaded to hold their tongues, others may be excluded from acquiring it. Information, in other words, can share essential qualities associated with other forms of property.

The intangibility of information alone does not disqualify it, for copyright and patent law have recognized exclusive rights in certain intangible aspects of works once certain requirements are met. For example, a playwright

See also Baird, supra note 1, at 415-23 (discussing natural rights theories for intellectual property protection).

27. See, e.g., supra notes 23-24 and accompanying text. Having an exchange value alone does not make something "property." See, e.g., Minniear v. Tors, 266 Cal. App. 2d 495, 72 Cal. Rptr. 287 (1968) ("idea" may be "sold" by contract, but contractual arrangement does not create property interest in the idea).


29. Emphasizing the importance of these core property rights, Judge Posner, for example, believes that legal enforcement of exclusivity and transferability rights in property, and private ownership of most of society's resources, create incentives that promote optimum economic efficiency. R. POSNER, ECONOMIC ANALYSIS OF LAW 39-41 (3rd ed. 1986).

30. The question of whether intellectual property is really property, and, if so, why it is so classified has not received much attention in American law. One of the few scholars to have addressed the issue observed:
may infringe a copyright in a dramatic work despite the fact that the second play takes no dialogue from the first play, if there are elaborate structural similarities between the works. A firm may infringe a patent if it builds a machine equivalent to that described in the patent, even if that machine appears to be quite different from the patentee's machine.

In common with other intangible intellectual products, information has the "public goods" problem that a grant of property rights may partially rectify. One common characteristic of certain kinds of public goods is that use by one person does not diminish the supply available to others once the good is produced. Because such public goods may not be physically scarce, it can be difficult to create incentives to produce them, in that the exclusivity necessary to recoup production expenses is difficult to maintain. The property rights granted by copyright and patent law artificially create a kind of scarcity for qualified intellectual products in order to improve incentives for creating these kinds of socially desirable public goods. Creating property rights in information arguably might do the same thing, that is, improve incentives for producing and distributing information, a socially desirable category of public goods. The law's general rule against enforcing private rights in information thus does not arise from some inherent incapacity of information to be property but from a policy choice against characterizing it as property.

In large measure, copyright and patent laws' scrupulous avoidance of protecting information is traceable to the belief of the framers of the Constitution that unfettered and widespread dissemination of information would
promote technological and economic progress. The drafters of the Constitution, educated in the Enlightenment tradition, shared that era’s legacy of faith in the enabling powers of knowledge for society as well as the individual. They viewed free access to knowledge as an essential step in building the fledgling nation. Intellectual property policy was an integrated part of the plan to promote a wide range of social, political, and economic goals. Granting exclusive rights to authors and inventors was thought to provide needed incentives to encourage innovation, while simultaneously promoting free and widespread dissemination of information.

A related reason why patent and copyright law have not protected information is that there are other aspects of an intellectual creation, besides the information, that the laws could protect. A copyright protects a writing’s “expression,” not the facts contained in the writing. A patent does not protect an inventor's discovery; it only prevents the invention from being “practiced” by others during the seventeen year life of the patent without the patentee's permission. Although “information” is not one of the aspects of a copyrighted work which section 102(b) of the current copyright statute

35. See B. Bugbee, Genesis of American Patent and Copyright Law 129-37 (1967) (tracing Enlightenment influences on American intellectual property law). The hopes of the founders for the U.S. intellectual property system appear to have been realized. In the century and a half following the framing of the Constitution, creative, technological, and scientific endeavor have flourished. See OTA Report, supra note 5, at 38.

36. There was, among those who followed the Enlightenment tradition, a “close association of technology with democracy. . . . A democratic polity was thought to be a prerequisite to advancement in applied science, while technological achievements were expected to provide the physical means of achieving the democratic objectives of political, social, and economic equality.” OTA Report, supra note 5, at 39.

37. As the Office of Technology Assessment reported to Congress:

Although the ruling monarchs of Europe had regarded the widespread dissemination of information with considerable alarm, the opposite view prevailed in the United States. Building a nation required the establishment of communication links, the development of a unified market, the forging of a common culture, and the building of a democratic polity. The widespread flow of information was essential to accomplish these tasks, and the establishment of an intellectual property system, they believed, would aid the creation and spread of information. Appreciative of the potential that information held for fostering national development, the Founding Fathers saw the granting of intellectual property rights, not as a natural right, but as a statutory, or positive right, in this case granted to promote learning.

Id. at 37.

38. Expression is the metaphor copyright law uses to describe the form in which the creator of copyrighted work fixes information. See, e.g., 3 M. Nimmer, Nimmer on Copyright § 13.03 (1988).

39. Patentees have the exclusive right to make, use, or sell their inventions for 17 years. 35 U.S.C. § 154 (1982).
expressly states that it will not protect, it is well established that copyright cannot protect information. Copyright law regards the information in published works as public domain material. Statements abound in copyright cases and commentary identifying the goal of copyright as promotion of learning and widespread dissemination of knowledge. Refusing to enforce property rights in information itself is believed to aid in achieving these objectives.

Despite the copyright principle against protecting information, judges have, on occasion, applied copyright law in a way that makes it difficult to distinguish between protecting expression and protecting information. This is particularly true in the area of compilations of information. Although the copyright statute strains to define what a compilation copyright can cover without including information, namely, the selection and arrangement of the information, in individual cases it can prove very difficult to implement the rule. When information widely available to the public is compiled in a single source, the "sweat of the brow" of the compiler may be all that separates unprotected information from protected expression.

On the patent side, free dissemination of knowledge is also a goal of the system. Although people hardly write patents to be read as others write novels, a fundamental principle of the American patent system from its inception has been that, as a prerequisite to issuance of a patent, a prospective patentee must be prepared to disclose how to make his or her invention—indeed the best mode of making the invention—in a way that an ordinary

42. Id. It is worth noting that the Court in this case found copyright infringement because the Nation had taken too much "expression" from an unpublished, copyrighted work, but the Court left open the possibility that a fair use defense might succeed where only information was taken from an unpublished manuscript. See id. at 556-57, 568-69.
44. Compilation is defined in 17 U.S.C. § 101 as: "[A] work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship." 17 U.S.C. § 101 (1982). Section 103 goes on to make clear that the "copyright in a compilation . . . extends only to the material contributed by the author of such work, as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material." Id. § 103.
45. See, e.g., Schroeder v. William Morrow & Co., 566 F.2d 3 (7th Cir. 1977) (taking of name, city, and zip code, but no other descriptive elements, of a list of gardening outlets was infringement of copyright).
46. See supra note 26 and accompanying text; see also OTA REPORT, supra note 5, at 73-74.
person skilled in the field could follow. Disclosure of this information is often said to be the quid pro quo the public receives in exchange for the grant of exclusive rights to the inventor. Although others are forbidden to make, use, or sell the invention for the seventeen years of the patent's life, the patent system makes available immediately the knowledge revealed in the patent which can spur additional innovation, often by persons other than the patentee. Follow-on inventors may obtain patents for their improvements on the original invention. When improvement patents issue, the new knowledge embodied in them also becomes available to the public. The patent system anticipates that this process will continue indefinitely, bringing about continuing technological progress.

Trade secret law has come the closest to designating information as property. Indeed, some cases expressly call trade secrets property. The more accepted view, however, has not regarded trade secrets in this way. According to Justice Holmes' classic formulation in *E.I. Du Pont de Nemours Powder Co. v. Masland*, protection flows from basic notions of fair and equitable conduct. Hence, when one acquires commercially valuable information through a confidential relationship, the law will not suffer abuse of the confidence by unauthorized disclosure of the information to the economic detriment of the confider.

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51. See generally 2 D. Chisum, *supra* note 50, at §§ 7.01-05 (discussing disclosure requirements). Improvements on prior inventions are patentable under 35 U.S.C. § 101 (1982) during the life of the patent on the underlying invention even if made by someone other than the patentee. The owner of an improvement patent, however, must obtain the permission of the underlying patent's owner to practice his or her improvement if, in order to make the improvement, one must make the underlying invention as well. See 3 D. Chisum, *supra* note 50, at § 9.03[2][b]; 4 D. Chisum, *supra* note 50, at § 16.02 [1][a].
52. Milgrim cites cases to this effect at 1 R. Milgrim, *Milgrim on Trade Secrets* § 1.01 [2], at 1-8 to 1-15 & n.15 (1988). Milgrim has no hesitation about characterizing trade secrets as property. Not all the cases he cites, however, stand for the proposition that trade secrets are property. See infra note 91 and accompanying text.
53. The American Law Institute rejected a property characterization for trade secrets. See *Restatement of Torts* § 757 comments a & b (1939). The Restatement position has been widely accepted as the proper statement of trade secret law. See infra notes 55, 89-91 and accompanying text.
54. 244 U.S. 100, 102 (1917).
55. Justice Holmes wrote:

The word "property" as applied to trademarks and trade secrets is an unanalyzed
Breach of confidence or use of improper means to obtain a trade secret are the two principal trade secret violations.\textsuperscript{56} It is simply unnecessary to call trade secrets "property" to enforce confidences and penalize those who use improper means to obtain a valuable secret. That it is also consistent with prevailing Enlightenment philosophy not to regard information as property probably helps to explain why even trade secret law has resisted use of the property label.

This section has introduced traditional attitudes of intellectual property law toward the protection of information. In sum, courts have rarely found it necessary to sacrifice the policy of free dissemination of information in order to promote creative endeavor and to protect reasonable exclusivity. The decisions discussed in the next two sections display the Supreme Court's recent remarkable willingness to depart from this tradition, and to recognize exclusive private interests in information.

II. \textit{Ruckelshaus v. Monsanto Co.: Information as Property in a Governmental "Taking"}

The property issue in the \textit{Ruckelshaus} case arose in connection with a broad-based attack by Monsanto on a congressional scheme regulating the uses to which the Environmental Protection Agency (EPA) could put research data Monsanto had submitted concerning certain pesticides. Monsanto claimed that the EPA's use of its data violated its rights under the fifth amendment to the Constitution.\textsuperscript{57}

Monsanto manufactures pesticides and other chemical products for use in agriculture. Because environmental hazards from widespread use of toxic chemicals in pesticides manifested themselves in the past, Congress empowered the EPA to oversee use of these substances.\textsuperscript{58} As part of this function, the EPA requires a manufacturer wishing to market a particular pesticide to submit data demonstrating that the substance will not harm the environ-
ment. The EPA reviews this data, and if satisfied with the manufacturer's showing, approves the pesticide for sale.\textsuperscript{59}

Whether EPA can use the data for any other purpose, particularly in evaluating the application of a competitor to sell chemically identical substances, or in releasing the data to the public when concerns arise about the safety of the pesticide, has generated considerable controversy.\textsuperscript{60} Naturally, the first applicant to gain approval of a particular pesticide would prefer to put any subsequent applicant to the expense and effort of replicating the research efforts. The longer it takes a competitor to do this research, and the more expensive the effort, the greater the first company's competitive edge in the marketplace. Therefore, the first applicant may be expected to have serious objections to EPA's reuse of the data in connection with a subsequent application (which would, in effect, allow a subsequent applicant to take "a free ride" on the research expenses the first applicant incurred), and even more serious objections to public disclosure of the data.

On the other hand, a competitor might argue that replication of the research is socially wasteful when EPA already has in its files sufficient data to determine the safety of the chemical. The competitor might also argue that the public interest would be served by allowing more competition in the pesticide market, that is, by allowing subsequent applicants to obtain EPA approval so that more pesticide products could be made available on the market at a lower price. This argument is especially strong where the pesticide is unpatented. Over the years, Congress has debated the issue of how to balance the public and private interests at stake in restricting or disclosing pesticide safety data.\textsuperscript{61} The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) has undergone a series of amendments to deal with this problem and to achieve an equitable balance.\textsuperscript{62}

As relevant to the Ruckelshaus case, there have been three basic phases in


\textsuperscript{60} See, e.g., Abramson, Confidential Business Information Versus the Public’s Right to Disclosure, 34 U. Kan. L. Rev. 681 (1986); see also Mobay Chemical Corp. v. Costle, 447 F. Supp. 811 (W.D. Mo. 1978) (prohibiting EPA from disclosing trade secrets and other confidential information contained in test data); Chevron Chemical Co. v. Costle, 443 F. Supp. 1024 (N.D. Cal. 1978).

\textsuperscript{61} The Supreme Court discusses the history of this debate in its analysis of whether the government had taken Monsanto's data for a "public purpose," as required by the fifth amendment. Ruckelshaus, 467 U.S. at 1014-16.

the government's policy on EPA's use of this data. The first phase was from 1947-1972. During this period, FIFRA was silent about what the government could do with safety data submitted regarding particular pesticides.63

The second phase was from 1972-1978, when FIFRA explicitly provided that a submitter of safety data could designate submitted data as trade secrets or confidential information.64 FIFRA forbade EPA to release such data to the public without the submitter's permission.65 As to EPA's use of the data in connection with another application, the law required a subsequent applicant to offer "reasonable compensation" to the first applicant.66 If the two firms were unable to agree as to what constituted "reasonable compensation," EPA, subject to judicial review, could set an amount.67 Once reasonable compensation had been paid, the law would in effect imply a license for EPA to use the data in considering a competitor's application. Data designated as trade secrets were, however, exempt from this mandatory licensing provision.68

Congress again amended FIFRA in 1978.69 In its third phase, FIFRA provided that for ten years, certain types of research data submitted to the EPA could not be used by the agency in connection with another application for the same pesticide.70 The amendment also created a fifteen year entitlement to "reasonable compensation" for EPA's use of research data in connection with subsequent applications.71 A new applicant was supposed to


65. 7 U.S.C. § 136h(b) (1976) (subsequently amended by Pub. L. No. 95-396, § 15, 92 Stat. 819, 829 (1978) (as amended)). A provision, however, allowed the Environmental Protection Agency (EPA) to challenge the trade secret characterization of the data. Id. § 136h(c).

66. Id. § 136a(c)(D).

67. Id.

68. Id. § 136a(a)(4); see also Ruckelshaus, 467 U.S. at 1010-11.


70. 7 U.S.C. § 136a(c)(1)(D)(i) (1982); see also Ruckelshaus, 467 U.S. at 994 & n.4.

negotiate compensation with the original submitter. If negotiations failed, the parties would resolve the dispute in arbitration.\textsuperscript{72} The EPA was also granted authority to make public disclosures of the data where necessary to protect public health.\textsuperscript{73} Both the compensation and public disclosure provisions, as well as those involving the use of the data for other applications, contemplated an override of the trade secret exemption that had been part of the 1972 law.\textsuperscript{74}

Monsanto's lawsuit challenged the entire FIFRA statutory scheme regarding data use and data disclosure as a taking of Monsanto's property by the government without an adequate public purpose, without due process of law, and without just compensation, as the fifth amendment to the Constitution requires.\textsuperscript{75}

The Supreme Court first addressed whether Monsanto had a property interest in the data submitted to EPA.\textsuperscript{76} Given the language of the fifth amendment, without a property interest, there could be no constitutional violation. Monsanto's claim of a property interest in the data rested principally on the large expenditures it incurred in compiling the data for submission to EPA (estimated at more than $23.6 million over the years).\textsuperscript{77} The data, Monsanto claimed, not only gave Monsanto a competitive edge because of the EPA approvals, but could also be used in developing additional end-use products for the chemicals and in expanding the uses of registered products.\textsuperscript{78} In order to protect the data, which Monsanto's competitors would find very valuable if they could obtain it, Monsanto had set up stringent security measures.\textsuperscript{79} Monsanto also relied on some Missouri case law, arguing that it characterized trade secrets as property.\textsuperscript{80}

For reasons difficult to understand, not only did EPA not challenge the contention that Monsanto had certain property rights in the safety data submitted to the government, it went so far as to stipulate that Monsanto had

\textsuperscript{72} Id. The Court in \textit{Ruckelshaus} also examined whether the FIFRA compensation scheme qualified as "just compensation." See 467 U.S. at 1016-20.

\textsuperscript{73} 7 U.S.C. § 136h (1982).


\textsuperscript{75} \textit{Ruckelshaus}, 467 U.S. at 998-99.

\textsuperscript{76} Id. at 1000.

\textsuperscript{77} Id. at 998.

\textsuperscript{78} Id.\textsuperscript{80} See \textit{Reddi-Wip, Inc. v. Lemay Valve Co.}, 354 S.W.2d 913 (Mo. Ct. App. 1962); Harrington v. National Outdoor Advertising Co., 355 Mo. 524, 196 S.W.2d 786 (1946); Luckett v. Orange Julep Co., 271 Mo. 289, 196 S.W. 740 (1917); \textit{see also infra} notes 86-91 and accompanying text.
such rights.\textsuperscript{81} This stipulation surely had an effect on the Court’s analysis of the issue. Despite the stipulation, and in part because of the Court’s uncertainty about its exact import, the Supreme Court decided to address the “trade-secret-as-property” issue, noting that it was the first time such an issue had been squarely presented to the Court.\textsuperscript{82} The Court began its analysis of the issue by reminding itself of the need to heed state law in analyzing property interests under the fifth amendment to the Constitution.\textsuperscript{83} The Court then noted favorably Monsanto’s assertion that its safety data “[were] property under Missouri law, which recognizes trade secrets as defined in § 757, comment b, of the Restatement of Torts, as property.”\textsuperscript{84} The Court cited three Missouri cases in support of this statement.\textsuperscript{85}

Curiously, while it is true that in two of the three cases cited by the Court, Missouri courts endorsed the Restatement of Torts definition of trade secret,\textsuperscript{86} in neither of these two cases did the Missouri courts hold that trade secrets are property.\textsuperscript{87} The Missouri Supreme Court decided the third case twenty-two years before the Restatement was published, and therefore could not have recognized that definition.\textsuperscript{88} Nor does the Restatement of Torts

\begin{itemize}
  \item \textsuperscript{81} Ruckelshaus, 467 U.S. at 1001. \textit{But see infra} notes 99-107 and accompanying text (discussing EPA’s apparent waffling on this point).
  \item \textsuperscript{82} Ruckelshaus, 467 U.S. at 1001.
  \item \textsuperscript{83} Id.
  \item \textsuperscript{84} Id.
  \item \textsuperscript{85} Id. at 1001 (citing Reddi-Wip, 354 S.W.2d at 913; Harrington, 355 Mo. at 524, 196 S.W.2d at 786; Luckett, 271 Mo. at 289, 196 S.W. at 740).
  \item \textsuperscript{86} See Reddi-Wip, 354 S.W.2d at 917; Harrington, 355 Mo. at 532, 196 S.W.2d at 791.
  \item \textsuperscript{87} Both Reddi-Wip and Harrington involved claims of breaches of confidential relationships, breaches of agreements concerning inventions, and charges of inequitable conduct. In Reddi-Wip, the court found that the information that the plaintiff claimed as a trade secret had been revealed in a patent, and therefore was in the public domain. 354 S.W.2d at 917-18. In Harrington, the plaintiff’s invention had been patented by one of the defendants who had wrongfully gotten the invention from the plaintiff. 355 Mo. at 533, 196 S.W.2d at 792. Both Reddi-Wip and Harrington are classic unfair competition cases.
  \item \textsuperscript{88} The third case upon which Monsanto relied, Luckett. 271 Mo. at 289, 196 S.W. at 740, is also a classic unfair competition case, resting upon charges of various types of inequitable conduct. Only once in the midst of a lengthy discussion of the circumstances of the dispute, does the court refer to a trade secret as property. \textit{Id.} at 302-04, 196 S.W. at 743. This single passing reference cannot fairly be interpreted as a holding by the Missouri court that trade secrets are property. But even if this was a fair interpretation of Luckett, it would be overridden by later Missouri decisions which expressly adopt the \textit{RESTATEMENT} definition of trade secrets. Consistent with the \textit{RESTATEMENT}, these decisions clearly predicate liability for appropriation of trade secrets upon use of improper means to obtain the secret rather than on a violation of property rights. \textit{See, e.g., Reddi-Wip}, 354 S.W.2d at 917 (citing E.I. Du Pont de Nemours Powder Co. v. Masland, 244 U.S. 100, 102 (1917); \textit{RESTATEMENT OF TORTS} § 757 comment a; \textit{see also} National Rejectors, Inc. v. Trieman, 409 S.W.2d 1, 18-19 (Mo. 1966)(citing \textit{RESTATEMENT OF TORTS} § 757 comment b in defining trade secrets); Ultra-Life Laboratories v. Eames, 221 S.W.2d 224, 232 (Mo. Ct. App. 1949)(same). Milgrim also cited these three cases in support of his thesis that trade secrets are property. Many of the other citations in his
speak of trade secrets as property. Quite to the contrary, the Restatement twice expressly rejects a property characterization for trade secrets. 89

Moreover, the most recent Missouri case cited by the Court in support of the contention that trade secrets are property according to Missouri law can more appropriately be interpreted to reject a property label for trade secrets. In that case, although acknowledging that courts have sometimes referred to trade secrets as property, the Missouri Court of Appeals cited Justice Holmes' decision in Du Pont90 and section 757, comment a, of the Restatement of Torts, for the proposition that the real rationale for imposing liability for trade secret indiscretions derived from the duty of good faith and the duty not to employ improper means to obtain the trade secret.91 Thus,

89. Comment a of § 757 states this in no uncertain terms:
   The suggestion that one has a right to exclude others from the use of his trade secret because he has a right of property in the idea has been frequently advanced and rejected. The theory that has prevailed is that the protection is afforded only by a general duty of good faith and that the liability rests upon breach of this duty. . . .

90. Restatement of Torts § 757 comment a (1939); see also id. comment b ("rule stated in this section rests not upon a view of trade secrets as physical objects of property, but rather upon abuse of confidence or impropriety in learning the secret").

91. See supra notes 54-55 and accompanying text.

89. "Footnote 15" are equally poor precedents to support his assertion. See 1 R. Milgrim, Milgrim on Trade Secrets § 1.01[2] n.15 (1988); infra note 91.
neither the Missouri cases nor the Restatement section upon which the Supreme Court relied stood for the proposition that trade secrets are property under Missouri law.

After making several other general observations about trade secret law, the Court attempted to reinforce the property characterization of trade secrets, noting that they were assignable, could form the res of a trust, and could pass to a trustee in bankruptcy.\textsuperscript{92} The Court then cited fragments of two statements in the legislative history of FIFRA indicating congressional recognition of some property interest in safety data submitted to EPA.\textsuperscript{93} The trade-secret-as-property discussion concluded with a general statement that the term property can include more than land and tangible goods, a proposition for which the Court resorted to Blackstone's 19th century Commentaries on the Laws of England,\textsuperscript{94} and Locke's Second Treatise on Government.\textsuperscript{95}

Although this is all that the Court said in the text on the trade-secrets-as-property issue, the section on this topic concludes with an observation that, in prior fifth amendment cases, other kinds of intangible rights, such as liens on property and contracts, had been found to be property within the meaning of the fifth amendment.\textsuperscript{96} This persuaded the Court that Monsanto's

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\textsuperscript{92} Ruckelshaus v. Monsanto Co., 467 U.S. 986, 1002 (1984). The Court here follows the property analysis utilized by Milgrim. See 1 R. MILGRIM, supra note 52, § 1.02 - .08.


\textsuperscript{94} Ruckelshaus, 467 U.S. at 1003 (citing 2 W. BLACKSTONE, COMMENTARIES *405).

\textsuperscript{95} Id. at 1003 (citing J. LOCKE, THE SECOND TREATISE OF CIVIL GOVERNMENT, ch.5 (J. Gough ed. 1947)).

\textsuperscript{96} Id. (citing Armstrong v. United States, 364 U.S. 40, 44, 46 (1960) (materialman's lien provided for under Maine law protected by taking clause); United States v. General Motors Corp., 323 U.S. 373, 377-78 (1945) ("property" as used in the taking clause has been construed as a group of rights inhering in the citizen's relation to the physical thing, such as the right to
trade secret interest in the safety data submitted to the EPA could also be property within the meaning of the fifth amendment. The Court discerned no difference between the types of intangible rights it identified and trade secrets, overlooking the significant fact that these other rights are stable, vested, and enforceable in ways that trade secrets are not. Liens, for example are enforceable after other persons know about them, whereas trade secrets “disappear” when revealed outside of a confidential relationship.

A footnote to the Court’s conclusory statement on the property issue contained the sole acknowledgment by the Court that there might be something questionable about characterizing trade secrets as property. Although EPA stipulated that Monsanto had some property rights in the submitted data, EPA’s brief contested that the data was property under the fifth amendment. In so doing, it raised Justice Holmes’s famous characterization of trade secret law in the Du Pont case. The Court responded to EPA’s argument regarding the Du Pont point by saying that “Holmes did not deny the existence of a property interest [in Du Pont]; he simply deemed determination of the existence of that interest irrelevant to resolution of the case.” It is, however, worth reiterating that authorities cite the Holmes opinion in Du Pont as the source of the “modern” rule that trade secrets are not property. The Court concluded its response to EPA’s challenge to a property characterization for trade secrets with a citation to a 1905 Supreme Court decision, Board of Trade v. Christie Grain & Stock Co., that made reference to trade secrets as property. Courts in subsequent cases have understood Board of Trade as a breach of a confidential relationship case, not a case recognizing property rights in trade secrets. Interestingly enough, the Board of Trade case did not even concern trade secrets. Rather, it involved an effort to enforce an agreement as to distribution of price quotas.

possess, use and dispose of it); Louisville Joint Stock Land Bank v. Radford, 295 U.S. 555, 596-602 (1935) (real estate lien protected); Lynch v. United States, 292 U.S. 571, 579 (1934) (valid contracts are property within meaning of taking clause)).

97. Ruckelshaus, 467 U.S. at 1003-04.
98. Id. at 1004 n.9.
100. See id.; E.I. Du Pont de Nemours Powder Co. v. Masland, 244 U.S. 100, 102 (1917); see also supra notes 53-55 and accompanying text.
101. Ruckelshaus, 476 U.S. at 1004 n.9. Again, the Court borrowed from Milgrim. See 1 R. MILGRIM, supra note 52, at § 1.01.
102. See supra note 55.
103. 198 U.S. 236, 250, 253 (1905). It is worth mentioning that Justice Holmes also wrote the Board of Trade decision. Perhaps 12 years later, when he decided the Du Pont case, Justice Holmes’ views had matured on what should be called property.
104. See, e.g., Cheney Bros. v. Doris Silk Corp., 35 F.2d 279, 280 (2d Cir. 1929), cert. denied, 281 U.S. 728 (1930).
tions by Board members. The opinion merely analogized this confidential relationship to trade secret situations. Even the International News Service case, which explicitly recognized a property right in the news, cited Board of Trade as a case enforcing a confidential relationship, not as a case recognizing property rights in information.

This Article's critique of the Court's analysis is not intended to suggest that the Court lacked a basis for its decision or that it decided the issue wrongly on the merits. It did, however, mischaracterize the state of the law on property rights in information. The opinion is also devoid of any effort to analyze the possible consequences of characterizing information as property. Nevertheless, as we shall see in the Carpenter case, a trio of Supreme Court decisions, namely Ruckelshaus, International News Service, and Board of Trade, have become the backbone of the information as property doctrine, as if it was now a well-established principle of law.

III. Carpenter v. United States: Information as Property in a Mail and Wire Fraud Scheme

R. Foster Winans was a reporter for the Wall Street Journal (Journal), and one of two authors who regularly contributed to the popular "Heard On the Street" column that appeared daily in the Journal. The column discussed particular stocks or groups of stocks, giving positive or negative evaluations of them. Because of the perceived quality and integrity of its assessments, the column became an influential source of recommendations about securities. Winans gathered information for his columns from pub-

105. Board of Trade, 198 U.S. at 245.
106. Id. at 250.
107. International News Serv. v. Associated Press, 248 U.S. 215, 237 (1918); see also infra text accompanying notes 151-58 (discussing the International News Serv. majority's finding of a quasi-property interest in news as a predicate for its unfair competition analysis).
108. Ultimately, the Court in Ruckelshaus decided that although all of the research data was Monsanto's property, the government could not be said to have "taken" it in violation of Monsanto's fifth amendment rights, at least as to data submitted before 1972 or after 1978, because FIFRA did not then completely prohibit EPA from disclosing the data. Ruckelshaus v. Monsanto Co., 467 U.S. 986, 1016 (1984). Because of this, Monsanto submitted the data to EPA without a "reasonable investment-backed expectation" that EPA would not reveal it. Id. at 1006-10. Because of the FIFRA provision prohibiting disclosure of trade secrets during 1972-1978, however, Monsanto did have "a reasonable investment-backed expectation" that data submitted during this period would not be disclosed. Thus, the Court viewed any EPA disclosure of the data submitted between 1972-1978 (even in-house, as to other applications) as a taking for which the fifth amendment would require just compensation. Id. at 1010-14. This result seems equitable, because it gives the government the right to release safety data, except when the statute has promised non-disclosure. Id. at 1004-14.
110. Id.
lic sources and from interviews with corporate executives. He apparently did not use any "inside" corporate information in his columns.\footnote{111}

Trouble arose when the temptation to make money from his own recommendations became too great for Winans to resist. Along with two Kidder Peabody brokers, one of the brokers' clients, and Winans' roommate David Carpenter, Winans began to participate in a scheme to trade in the securities about which he was going to report in his next column.\footnote{112} Over a four-month period, the net profits from these trades totalled about \$690,000.\footnote{113} Eventually, the venture was discovered and the participants were found guilty of criminal violations of federal securities, mail, and wire fraud laws.\footnote{114}

To obtain a conviction on a mail or wire fraud charge, the government must prove that the defendants took some "money or property" in the course of the fraud.\footnote{115} Winans argued before the Supreme Court that neither he nor the others had taken any money or property from the Journal or anyone else.\footnote{116} To support his argument, Winans maintained that \textit{McNally v. United States},\footnote{117} decided by the Court a few months earlier, precluded a finding that such an intangible right as his obligation to be a trustworthy employee could be regarded as property within the meaning of the mail and wire fraud statutes.\footnote{118} In \textit{McNally}, the Court had rejected the

\begin{itemize}
\item \footnote{111}{\textit{Id.}}
\item \footnote{112}{\textit{Id.}}
\item \footnote{113}{\textit{Id.}}
}\item \footnote{115}{Section 1341 reads, in pertinent part:
\begin{quote}
Whoever, having devised or intending to devise any scheme or artifice to defraud, or for obtaining money or property by means of false of fraudulent pretenses, representations, or promises, . . . for the purpose of executing such scheme or artifice or attempting to do so, places in any post office or authorized depository for mail matter, any matter or thing whatever to be sent or delivered by the Postal Service, or takes or receives therefrom, any such matter or thing, or knowingly causes to be delivered by mail according to the direction thereon, or at the place at which it is directed to be delivered by the person to whom it is addressed, shall be fined not more than \$1000 or imprisoned not more than five years, or both.
\end{quote}
The wire fraud provision is very similar, except that it requires use of the telephone or other wire communication, rather than use of the mails. \textit{See id.} § 1343.}
\item \footnote{116}{\textit{Carpenter}, 108 S. Ct. at 320.}
\item \footnote{117}{107 S. Ct. 2875 (1987).}
\end{itemize}
government's argument that the intangible right of citizens to expect government employees not to breach their duties to perform as honest government servants could be property under the mail and wire fraud statutes. Because Carpenter, like McNally, involved a breach of trust by an employee, Winans argued that McNally required reversal of the mail and wire fraud convictions.

The lower court decisions in Carpenter only superficially analyzed the mail and wire fraud charges. Although the trial court concluded that Winans and his fellow defendants had fraudulently misappropriated or stolen property from the Journal, it failed to specify exactly what that property was, or to cite any authority identifying that which Winans had taken as property within the meaning of the mail and wire fraud law. The court of appeals decision similarly dismissed without analysis Winans’ challenge to the mail and wire fraud conviction, glibly saying that “we need not dwell at length” on Winan’s conviction. It was clear, the court stated, that confidential and nonpublic information could be property under the mail and wire fraud statutes, citing two prior mail and wire fraud cases. In light of the superficiality of the lower courts’ decisions on the mail and wire fraud charges, and because the appellate decision in Carpenter and the two cases relied upon by the Court in Carpenter were decided before the Supreme Court’s rejection of the “intangible rights as property” theory in McNally, Winans appeared to have stood a good chance to overturn his mail and wire fraud convictions on appeal.

As the case ascended through the courts, the main focus of Carpenter had always been the securities fraud claim. Both the district court and intermediate appellate court decisions devoted considerably more analysis to the issues raised by the securities charge than they did to the mail fraud charge. The dispute over the securities fraud charge turned on different interpreta-

119. 107 S. Ct. at 2879-81. The fraud in McNally involved a scheme whereby a government employee with defacto control over the state of Kentucky’s purchase of insurance policies directed the business to his co-conspirators in the insurance business, and shared in the profits. Id. The intangible right claimed as property under the statute was the right of citizens to honest government. Id. The Supreme Court refused to extend the reach of the mail fraud statute to encompass this intangible right. Id. at 2882; see Note, supra note 118, at 1036-39.


122. Id. at 1034.

123. Id. at 1034-35 (citing United States v. Louderman, 576 F.2d 1383 (9th Cir.), cert. denied, 439 U.S. 896 (1978); United States v. Von Barta, 635 F.2d 999, 1006 (2d Cir. 1980), cert. denied, 450 U.S. 998 (1981)).

124. See Carpenter, 612 F. Supp. at 838-44, 791 F.2d at 1027-34.
tions of the statute's proscription of insider trading.\footnote{125} Winans argued that the securities fraud statute only reached corporate insiders, quasi-insiders, and those who received the information from an insider or quasi-insider. Because he fit none of these categories, he argued that he was not the type of person toward whom the securities laws were directed. The government, on the other hand, sought to persuade the courts to accept its theory that anyone who "misappropriated" non-public information about the securities could be prosecuted for securities fraud.\footnote{126} The mail and wire fraud charge was a "backup" for the government in case the courts refused to extend the securities laws as far as the government proposed.

In anticipation of the Supreme Court's decision in \textit{Carpenter}, there was considerable speculation about what the Court would do and why.\footnote{127} Despite a general consensus that what Winans did was wrong, it appeared that he might escape punishment. His acts resembled insider trading and other types of securities fraud in that he made profits based on his knowledge of information unknown to the rest of the market. Yet securities fraud statutes have limits, and it was far from clear that Winans had transgressed them.

As it turned out, the Supreme Court was unable to resolve the securities fraud issue in the \textit{Carpenter} case.\footnote{128} Four justices voted to uphold the conviction on that count and four to overturn it. In keeping with Supreme Court tradition, the Court affirmed the intermediate appellate decision, although the affirmance was without the controlling weight that a majority decision of the Court would have provided.\footnote{129} The Supreme Court in \textit{Car-}


\footnote{126} In its 1980 \textit{Chiarella} decision, the Supreme Court seemed to invite use of a misappropriation theory of securities fraud to reach persons such as Chiarella, a typesetter who guessed the identity of the target of a hostile corporate takeover while setting type for documents being prepared in connection with the takeover, and who traded in the targets' securities. Chiarella was not a corporate insider and had no fiduciary relationship with the investors of the traded stock, and therefore, the Supreme Court reversed his conviction on securities fraud charges. United States v. Chiarella, 445 U.S. 222 (1980). The Court in \textit{Chiarella} rejected the government's "misappropriation" theory offered in support of the conviction, but only on the ground that the theory had not been submitted to the jury. \textit{Id.} at 235-37; see Cox, supra note 125, at 390-92 (discussing \textit{Chiarella} and its contribution to the misappropriation doctrine).


penter only cryptically explains its decision as to the securities fraud claim, and offers little insight into the reasons behind the schism of the Court.130

The Supreme Court, however, unanimously upheld the convictions on the mail and wire fraud counts.131 Distinguishing Carpenter from McNally, the Court said that not all intangible rights had been disqualified from the reach of the mail and wire fraud statutes, only those involving the rights of citizens to honest and impartial government.132 The Court concluded that the "Journal, as Winans' employer, was defrauded of much more than its contractual right to his honest and faithful service, an interest too ethereal in itself to fall within the protection of the mail fraud statute, which 'had its origin in the desire to protect individual property rights.' "133 Observing that both lower courts had expressly referred to the Journal's "interest in the confidentiality of the contents and timing of the 'Heard' column as a property right," the Court agreed, citing Ruckelshaus, Board of Trade, and International News Service, to support its conclusion.134

Through trading on the 'Heard' column information, Winans had "deprived [the Journal] of its right of exclusive use of the information, for exclusivity is an important aspect of confidential business information and of most private property for that matter."135 Because Winans knew of the Journal's policy of keeping prepublication material confidential, he should have known that it considered this information to be its property. Winans' use of the information was therefore a fraudulent taking of property which could support a mail or wire fraud conviction.136 As in Ruckelshaus, the Supreme Court seemed to seize upon the "property" label in order to reach a just result without giving serious thought to the consequences for future cases, and without perceiving what a fragile base this cluster of precedents

130. 108 S. Ct. at 320.
131. Id.
132. Id. See Coffee, supra note 2, for a critique of Carpenter from a criminal law perspective.
134. Id.
135. Id. at 321. Coffee considers the Court's decision in Carpenter to be extraordinary because it was a case in which the owner of the information suffered no economic loss as a result of misuse of the information. Coffee, supra note 2, at 130.
136. "We Were Robbed," blared the headline of a Wall Street Journal (Journal) editorial published after the Court decided Carpenter, succinctly summarizing the Journal's view. Wall St. J., Nov. 17, 1987, at 38, col. 1. Ironically, the Court's ruling implicitly means that the Journal could lawfully have traded in the information Winans appropriated because the Journal "owned" it, even though the Journal would thereby have profited from material, nonpublic information, a result hardly in keeping with the spirit of the rules prohibiting insider trading. See Cox, supra note 125, at 303.
provides for such a significant legal proposition as the recognition of property rights in information.

IV. INTERNATIONAL NEWS SERVICE v. ASSOCIATED PRESS: THE NEWS AS PROPERTY

One of the cases the Supreme Court relied upon in Carpenter explicitly recognized a property, or more precisely, a quasi-property right in a species of information—the news. The case, decided seventy years ago, involved an unusual factual situation and contained an analysis of the information as property issue. In International News Service v. Associated Press, the Supreme Court upheld an injunction prohibiting the International News Service (INS) from publishing news gathered by the Associated Press (AP) and published in AP newspapers.137 The case was unusual because INS employees had, for the most part, obtained the “misappropriated” news in a lawful manner.138 Some employees obtained the information by purchasing the early editions of AP newspapers, and some by going to the offices of AP newspapers and reading the AP dispatches posted on public bulletin boards.139

Justice Pitney’s majority opinion alternated back and forth between property and unfair competition motifs in identifying the underlying theory supporting the outcome of the case.140 Over time International News Service has come to be understood more as an unfair competition case than as a case establishing property rights in news or any other sort of information.141 Nevertheless, the first question that the Court posed and addressed was whether there was any property interest in news, and it ultimately answered that critical question in the affirmative.142 While unfair competition was the focal point of the case, the part of the opinion addressing the property-

138. International News Serv., 248 U.S. at 231-32. International News Service (INS) had also bribed some employees of Associated Press (AP) member newspapers to furnish unpublished AP news to it and had also otherwise induced AP members to give INS employees unpublished news in violation of AP bylaws. Id. at 231. The trial court issued injunctions against INS to prevent any more of this conduct. Id. INS did not, however, appeal these portions of the injunction, and so they were not before the Court in its International News Serv. decision. Id. at 232. Nevertheless, the fact that INS had committed such clearly illegal acts in the course of its news collection from AP may have colored the court’s judgment on the issue that was before it.
139. Id. at 231.
140. See id. at 232-46; see also infra notes 144-59 and accompanying text.
141. See supra note 17 and accompanying text; see also Abrams, supra note 137, at 510-11.
rights-in-information issue is worth careful study because the majority’s struggle to articulate its property theory is impossible to untangle from its unfair competition analysis. Two strong opinions from Justice Holmes and Justice Brandeis declare their reservations concerning a property rights approach, and suggest that the majority’s sweeping conclusion was unnecessary and imprudent. Their warnings as to the weighty implications of recognizing private property interests in information become particularly cogent and instructive as the present Court appears inclined to embark on a similar course without the degree of consideration warranted by this complex issue.

A. Justice Pitney’s Majority Opinion: Information as “Quasi-property”

INS based one of its arguments against recognizing property rights in the news on copyright law. While newspapers at that time were capable of being copyrighted, there was no copyright claim in the case because AP had not secured a formal statutory copyright in the newspapers and dispatches on bulletin boards. INS argued that copyright law provided that publication of written works without copyright notice put the works in the public domain, and in any event, a copyright on a news report would certainly not give the author a copyright in the news itself.

Although agreeing with INS that the framers of the Constitution did not intend the copyright clause to confer exclusive rights in news to the first reporter, Justice Pitney disagreed with the conclusion that INS asked the Court to draw from this point. He stated that the Court “need spend no time, however, upon the general question of property in news matter at common law, or the application of the copyright act, since it seems to us the case must turn on the question of unfair competition in business.” Despite this disclaimer, in the two paragraphs that follow, Pitney weaves back and forth through the property and unfair competition themes of the case.

On the property side, Justice Pitney seems to have considered the news gathered by the AP as its property during the time it was being collected and disseminated to AP members before publication in the newspapers. News, however, unlike a trade secret, cannot be exploited by maintaining...
confidentiality. In general, "[t]he peculiar value of news," Justice Pitney pointed out, "is in the spreading of it while it is fresh; and it is evident that a valuable property interest in the news, as news, cannot be maintained by keeping it secret."\textsuperscript{150} The majority thought that news, upon publication, should be regarded as common public property. In Justice Pitney's view, while neither party could assert a property interest in uncopyrighted news against the public after publication, "it by no means follow[ed] that there [was] no remaining property interest in it as between themselves."\textsuperscript{151} After all, news was the stock in trade of both AP and INS, gathered "at the cost of enterprise, organization, skill, labor, and money."\textsuperscript{152} As with any other merchandise, both AP and INS sold and distributed news for pecuniary gain. The Court said:

Regarding the news, therefore, as but the material out of which both parties are seeking to make profits at the same time and in the same field, 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.\textsuperscript{153}

The majority further stated that courts in equity can treat any civil right of a pecuniary nature as a property right, and that those, who by their honest labor, acquire property are as much entitled to protection of their property as those who had long before acquired it.\textsuperscript{154} Thus, the majority's property analysis mainly relied on the time, money, and energy that AP expended, and on the stock-in-trade analogy, to support its recognition of the property or quasi-property interest AP had in the news it gathered.

In response to INS' argument that the news was "too fugitive and evanescent to be the subject of property," the Court became rather impatient. Although agreeing that such an argument might dispense with the matter in a common law controversy, the Court found the position untenable. The Court noted that the news had all the salient attributes of property needed to determine that its misappropriation constituted unfair competition, especially when INS' purpose in acquiring it from AP was to use it to the disadvantage of its competitor.\textsuperscript{155} Once again, the unfair competition and property themes intertwined.

An interesting question raised by the International News Service majority opinion is why the Court placed the news gathered by AP in the unusual

\textsuperscript{150} International News Serv., 248 U.S. at 235.
\textsuperscript{151} Id. at 236.
\textsuperscript{152} Id.
\textsuperscript{153} Id.
\textsuperscript{154} Id.
\textsuperscript{155} Id. at 240.
category it called "quasi-property" after publication, rather than simply recognizing full-fledged property rights. There seem to be at least three reasons for this categorization. First, the Court regarded published news as common property with respect to the general public. Someone who buys an AP paper or even reads a headline at the newsstand is free to communicate that news to anyone he meets. It would be odd indeed to denominate something common property as to one group of people but private property as to another group. Quasi-property, therefore, may have denoted the unusual status of the AP news in relation to INS better than a "private property" label would have.

Second, even as between INS and AP, the news did not remain AP's property forever. The injunction simply forbade INS from disseminating the AP news "until its commercial value as news to the complainant and all of its members has passed away." Quasi-property once again may have expressed the transient quality of AP's rights better than private property. Third, even while the news was still fresh and commercially valuable, the injunction did not forbid INS from taking news from AP as "tips." The Court recognized that both AP and INS, as well as other news services, routinely searched one another's newspapers for tips on hot news items. As that practice was well-established in the industry, the Court distinguished between the utilization of tips and the bodily appropriation of news. The former was legal; the latter was illegal. Again, quasi-property expressed the limited nature of AP's interest in the news in relation to INS better than a pure private property label would have.

The majority opinion in International News Service is a most interesting blend of property and unfair competition analysis. The Court found this curious admixture necessary to reach an equitable result, but the validity of its property analysis is questionable. Other opinions in the case raise serious doubts, perhaps taking the implications of the Court's property analysis more seriously than did the majority.

B. The Holmes Separate Opinion and the Brandeis Dissent: Doubts About Information as Property

Both Justices Holmes and Brandeis were critical of the majority opinion insofar as it recognized property rights in news. Both also reflected dissatisfaction with the majority's unfair competition analysis. These two eminent
justices, however, had very different reasons for their disagreement with Justice Pitney's opinion.

Justice Holmes' separate opinion, in which Justice McKenna concurred, began by observing that property rights are creations of law. Property rights, he continued, do not arise automatically from value, even if that value is exchangeable. They, rather, depend on a legal judgment that recognizing a right to exclude is needed to protect against unwarranted interferences. Justice Holmes seemed to say that where protection can be afforded without granting a right to exclude, it is unnecessary to create property rights to resolve the problem.

Justice Holmes went on to identify an alternative means of resolving the dispute, namely, unfair trade law. In general, he noted, unfair competition in the legal sense arises when one vendor, the defendant, either explicitly or implicitly represents that the product he or she is selling came from the plaintiff, thereby depriving the plaintiff of a sale and injuring the consumer who may be disappointed in not getting what he or she desired. The false representation in the International News Service case might be more subtle, he observed, because INS was not selling the news by representing that it came from AP, as would normally be the situation in unfair trade cases. Rather, INS was selling AP's news as its own and not ascribing any credit to AP. Although the falsehood was the reverse of the normal passing off situation, "the principle that condemns the one condemns the other." The remedy Justice Holmes suggested was simply to correct the false impression that the news came from INS by having INS acknowledge its true source.

Justice Pitney's majority opinion responds to Justice Holmes' position that liability should rest only on INS' implied misrepresentation. While agreeing that there was an implied misrepresentation, and that it had accentuated the wrong, Justice Pitney observed that the misrepresentation was not the essence of the wrong committed by INS against AP. In Justice Pitney's view, bodily misappropriation of the news in competition with AP without compensation was the essential wrong. Justice Pitney's effort to
reach the essence of the wrong and find an appropriate legal response to it was admirable; Justice Holmes' proper labelling remedy does seem a rather unsatisfactory legal response to the wrong in the case.

Justice Brandeis' famous dissent in International News Service raised serious questions, however, about the majority's legal response to the essence of the wrong. Quite in agreement with the majority opinion that INS had acted unjustly toward AP,170 Justice Brandeis simply disagreed that judicial creation of a property right in news was an appropriate response. More was at stake in the case than righting an injustice. To give relief required more than the application of old rules to new facts; it required making a new rule.171 Although the common law over the years had created new rules to deal with new situations, Justice Brandeis thought that this situation so severely affected the public interest that such an approach was dangerous.

At least two aspects of the majority position seemed to trouble Justice Brandeis. The first was the boundlessness of the right created by the majority.172 Was anyone who spent time, money, and energy on something now to have a property, or even quasi-property, right in it, so that no one else could make use of it and "reap whereof he had not sown"?173 The majority opinion did not articulate the boundaries, if any, that would confine the reach of the property right it recognized.

Justice Brandeis' fear of the dangers presented by a boundless tort of this sort proved to be well-founded. In the first decade after this opinion, International News Service misappropriation suits became quite common, until the courts began confining International News Service virtually to its facts, so that the claim fell into disuse.174 Long dormant, the International News Service misappropriation tort has enjoyed something of a comeback in the last decade or two.175 Decisions such as Ruckelshaus and Carpenter may reinforce this trend.

Second, Justice Brandeis charged that the majority opinion ignored the public's interest in the dissemination of news, an omission that he found

News Serv. as a situation requiring recognition of a right to exclude as necessary to protect against unwarranted intrusions. See supra text accompanying notes 154-55.
170. Id. at 262 (Brandeis, J., dissenting).
171. Id.
172. Id. at 262-63.
173. Id. at 239-40 (Pitney, J.). The majority opinion stressed this consideration. Id.
174. See, e.g., E. Kitch & H. Perlman, supra note 17, at 36-39; see also Baird, supra note 1, at 420-22; Abrams, supra note 137, at 511. Another reason for the demise of International News Serv. misappropriation suits was because International News Serv. was a federal common law case decided before Erie R.R. v. Tompkins, 304 U.S. 64 (1938).
175. See, e.g., Standard & Poor's Corp. v. Commodity Exchange, Inc., 683 F.2d 704 (2d Cir. 1982); see also Reback & Hayes, Copyright Gone Astray: The Misappropriation Alternative, COMPUTER LAW., Apr. 1986, at 3.
deeply disturbing. The AP argued for a rule that would not only be a significant extension of property rights, but also would seriously curtail the free use of knowledge. "The general rule of law," said Justice Brandeis, is that "the noblest of human productions—knowledge, truths ascertained, conceptions, and ideas—become, after voluntary communication to others, free as the air to common use." Justice Brandeis recognized the existence of exceptions to this general rule. "Upon these incorporeal productions the attribute of property is continued after such communication only in certain classes of cases where public policy has seemed to demand it," and then only when the legislature has undertaken to define the boundaries of such rights, as in the patent and copyright statutes. In Justice Brandeis' opinion, the injustice perpetrated by INS should have been righted, if at all, by the legislature.

This approach has much to recommend it, and is consistent with the manner in which copyrights and patent rights are secured. The legislature stands in a better position to take into account all the ramifications of the decision to recognize property in information and to craft a rule balancing the competing interests appropriately. As Justice Brandeis himself pointed out, the legislature might, for example, fashion a rule that protected the news against appropriation, but put a gatherer of it under an obligation to supply it to others for a reasonable price without discrimination. As Justice Brandeis noted, half of the newspaper readers in the nation read non-AP newspapers. The major reason that INS had been taking AP news was that it had been unable to obtain war news, not because it was unwilling to go to the expense of gathering it, but because foreign governments had cut INS out of the normal channels of cabling foreign news back to the United

176. International News Serv., 248 U.S. at 250-51, 263-67 (Brandeis, J., dissenting). The only place the majority opinion arguably expressed any concern about the public interest in news dissemination was in connection with an economic argument Justice Pitney used to support his conclusion. Noting that news gathering was an expensive enterprise, he observed that AP needed to recoup this expense if its newspaper, and the company itself, were to remain in business. While Justice Pitney did not directly state that if firms like INS were permitted to pirate the news at issue, AP's incentives for incurring the expense of gathering the news would be undermined, and the public would therefore suffer if AP reduced its news-gathering efforts, that thought arguably is implicit in this portion of Justice Pitney's opinion. See id. at 240-41. (Pitney, J.); see also supra notes 152-53 and accompanying text.

177. Id. at 250 (Brandeis, J., dissenting).

178. Id.

179. Id. at 263-67.

180. But see Baird, supra note 1, at 420 (questioning whether legislatures are truly better situated to make good decisions about such matters).

181. See International News Serv., 248 U.S. at 266-67. This appears to be Brandeis' answer to Pitney's economic argument discussed supra at note 176.
The European war at that time was of great importance and intense interest to the public. INS faced a serious dilemma. It could not ignore the public's interest in news of such importance. It had to publish what it could acquire by any means to meet the demand. If INS had offered to pay AP for this news, and AP refused, the public might have suffered from the shutout, not just INS. Justice Brandeis considered these facts to be of crucial significance, yet the majority opinion entirely ignored them.

In sum, the oft-cited Brandeis dissent in *International News Service* represents a classic statement of the Enlightenment point of view that has long permeated American intellectual property law, and copyright law in particular. The doubts it expresses about creating property rights in news or information in general are typical of this traditional approach of the law toward protecting information as property. This Article raises the question whether the times—and the economy—have undergone such extensive change that the Enlightenment position is no longer persuasive, or, at least, no longer persuasive to the same degree as before.

V. INFORMATION AS COMMODITY IN THE INFORMATION AGE: ARE PROPERTY RIGHTS NEEDED?

It is too early to tell whether the *Ruckelshaus* and *Carpenter* decisions presage a new wind in the law's attitude toward recognizing property rights in information, or whether they represent aberrational decisions understandable solely in light of the equitable circumstances they presented and the need to resort to recognition of some property interest to reach an equitable result. Neither decision, it should be noted, called for issuance of an injunction to stop the dissemination of information.

Both decisions, however, can be criticized for the weakness of their analyses supporting information as property conclusions. Little precedent exists to support the Court's conclusion in either case, and the Court did not make a persuasive case for this important proposition independently. Even more unfortunately, at present, there is no Justice Brandeis or Justice Holmes on the Court to raise questions about the wisdom of making such broad pronouncements on what is essentially a new and radically different perspective on the law's attitude toward information. No Justice in either recent case questioned the information as property point, either in concurrence or in dissent. Perhaps this very unanimity is the most telling sign of all: The traditional reluctance of intellectual property law to recognize information as property may be giving way to a new legal approach, one which embraces information as property in the Information Age.

182. *International News Serv.*, 248 U.S. at 263-64.
Of the two Supreme Court decisions, the Carpenter case is more disturbing. After all, the data in Ruckelshaus were fixed in a tangible form, were identified by Monsanto as trade secrets, and had clear commercial value to Monsanto.\textsuperscript{183} Although the "modern rule" has been that trade secrets are not property,\textsuperscript{184} there is some authority to support a property characterization for trade secrets.\textsuperscript{185} The Carpenter case, however, involves quite a different set of circumstances. While there is no question that Wi- nans violated company policy and abused the trust that the Journal placed in him,\textsuperscript{186} it strains the bounds of reason to say that he knew or should have known that the Journal would regard his own stock recommendations and its publication schedule as its "property."\textsuperscript{187} The notion that the Journal owns whatever information its reporters may gather, whether from public domain sources or otherwise, is a highly dubious proposition. If Carpenter is to be taken at face value, employee "whistleblowing" on company wrongdo- ing would now seem potentially actionable as a misappropriation of the employer's property.\textsuperscript{188} Perhaps the first amendment's protection of free


\textsuperscript{184} See \textit{supra} notes 53-55 and accompanying text.

\textsuperscript{185} See \textit{supra} note 52 and accompanying text.


\textsuperscript{187} See \textit{id.} at 319. In \textit{McNally}, the Court's concerns about the ambiguity of mail and wire fraud statutes and the need to provide adequate notice of possible criminal liability influenced its decision to reverse the convictions based on the intangible rights theory. See \textit{McNally} v. United States, 107 S. Ct. 2875, 2881-82 (1987). The same ambiguity and notice issues were present in \textit{Carpenter}, yet the Court in this later case ignored them.

\textsuperscript{188} Justice Brandeis' complaints about the \textit{International News Serv.} majority opinion, namely the boundlessness of the right created and the lack of awareness of the substantial social implications of recognizing raw information as property, are also present in the \textit{Carpenter} decision. 108 S. Ct. at 320-21; see also Coffee, \textit{supra} note 2, at 123; \textit{supra} text accompanying notes 153, 163, 167. The Court's property analysis in \textit{Carpenter} may have at least partially resurrected the "intangible rights" doctrine the Court rejected earlier in the year, for both cases involved breach of trust, a theory of liability resting on considerations other than property rights. Another possible source of partial or wholesale revival of the "intangible rights" doctrine can be found in an obscure provision Congress added to its election year overhaul of the federal drug laws where Congress also amended the mail and wire fraud statutes:

Sec. 7603. Definition for Mail Fraud Chapter of Title 18, United States Code. (a) IN GENERAL- Chapter 63 of title 18 of the United States Code is amended by adding at the end following: § 1346. Definition of 'scheme or artifice to defraud'

"For purposes of this chapter, the term 'scheme or artifice to defraud' includes a scheme or artifice to deprive another of the intangible right of honest services."


Interestingly, Congress chose to amend the definition of "scheme or artifice to defraud." It stopped short of explicitly characterizing "the intangible right of honest services" as property. The amendment instead clarifies that a deprivation of this right constitutes an artifice to defraud, prohibited by the mail and wire fraud statutes. While the amendment was intended to overrule \textit{McNally}, Congress did not reach the issue of whether "intangible rights" fraud oper-
speech interests will serve as some check on the reach of the information as property doctrine.189

These two cases are not the only signs of changing attitudes in the law regarding the benefits of free dissemination of information. The export control laws of the United States make the exchange of technical or scientific information—even in conversation with a foreigner on United States soil—an export of technical data requiring authorization by an export control license.190 Similarly, the patent system permits issuance of secrecy orders to prevent disclosure of inventions having national security implications, including those not designated as classified.191 Reagan administration proposals would have limited the exchange of scientific information, for example, by attempting to forbid scientists from attending scientific conferences to deliver papers and to give the government power to control sensitive but unclassified information.192 The Commerce Department has also embarked on a course of increased involvement in intellectual property policy because intellectual property exports are one of the few areas where the United States enjoys a positive balance of trade. Increased respect for United States intellectual property rights throughout the world would result in an increase of this already favorable balance. As a consequence, intellectual property concerns now find their way into General Agreement on Tariffs and Trade (GATT) negotiations.193


192. See, e.g., Chalk, Death of a Data Directive, 90 TECH. REV. 13-14 (1987) (discussing a national security directive to give the government control over "sensitive" but unclassified information); see also D. NELKIN, SCIENCE AS INTELLECTUAL PROPERTY (1984) (discussing the effects of a trend to treat scientific research as intellectual property and restrict its dissemination); Eisenberg, Academic Freedom and Academic Values in Sponsored Research, 66 TEX. L. REV. 1363 (1988).

While these examples represent but a few manifestations of a more proprietarian and anti-dissemination attitude toward information than that which the law has previously displayed, this should not be surprising in light of the great extent to which the economy now depends on the production and sale of information.\textsuperscript{194} New technologies, particularly computers, are causing significant changes in the way information is produced and distributed, and this may necessitate changes in intellectual property law.\textsuperscript{195}

It will be no small task to determine what changes in intellectual property law should be adopted to address problems presented by this transformation of the economy and what changes should be resisted to avoid stifling socially desirable exchanges of particular forms of information.

Once courts have passed the initial threshold issue by deciding that information can be property, they will inevitably address a host of even more difficult and complex questions. The next step will be the challenging task of defining information, articulating the circumstances in which certain information is or is not property, and explaining why these circumstances warrant a property designation and others do not. The recent \textit{Ruckelshaus} and \textit{Carpenter} decisions do not take up this challenging task. In both decisions, the Court failed to proceed cautiously and did not attempt to limit the reach of its property analysis, let alone foresee the implications of the characterization it invoked.

Clearly, the word property is a very powerful metaphor that radically changes the stakes in legal disputes.\textsuperscript{196} Once a property interest is established, the law provides a wide range of legal protections for it, a much wider range, particularly in the criminal law area, than for breaches of trust or confidence, or other specific kinds of unfair conduct.\textsuperscript{197}

\textsuperscript{194} See, e.g., OTA REPORT, supra note 5, at 40-41.

\textsuperscript{195} As the Office of Technology Assessment’s Report observes:

\begin{quote}
Intellectual property law is increasingly outdated in providing appropriate incentives for the production and distribution of many information-based goods. Because of this, markets may increasingly fail to provide economically and socially efficient varieties of information. In trying to remedy information market failures, policymakers face tradeoffs among interests with high stakes in intellectual property debates. When they enact changes in intellectual property law, they may be required to make some explicit decisions about the actual nature, content, and distribution of goods based on information.
\end{quote}

\textit{Id.} at 157.


\textsuperscript{197} The \textit{Carpenter} case provides an apt illustration of this point. If all Winans had done wrong was to breach a duty of loyalty he owed to his employer, he could not have been convicted of mail or wire fraud. If, however, one recharacterizes his action as a taking of property, suddenly mail fraud charges become viable. See \textit{Carpenter v. United States}, 108 S. Ct. 316, 320-21 (1987).
What we now refer to as intellectual property law has long been part of unfair competition law.\textsuperscript{198} As long as unfair competition is the predominant motif of this area of law, a defendant has considerable leeway to challenge the plaintiff's assertion that hard competition engaged in by the defendant was so hard as to be "unfair." If the ground shifts and the plaintiff can assert that a taking of property has occurred, the range of defenses is narrowed. Slowly but surely, the property motif is gaining strength in intellectual property law, changing the balance of power in legal disputes.\textsuperscript{199}

An example may help to clarify this abstract generalization. If one believes that copyright law creates a property interest in a copyrighted work, then anyone who makes an unauthorized copy of it is a thief. It matters not whether the copier might be making the copy at home only for his or her own private purpose. If one instead believes that copyright law is a regulatory statute aimed at preventing unfair competition, then private home copying is not the kind of conduct the statute was intended to address and is therefore not infringement.\textsuperscript{200} While one recent Office of Technology Assessment report concludes that Congress has not made an explicit judgment on the private use copying problem, and has not made a choice between the property and the regulatory model for copyright,\textsuperscript{201} clearly, copyright owners generally desire the stronger protection that the recognition of property rights affords.\textsuperscript{202} On this issue, the public and copyright owners differ considerably, for the general public appears to think that home copying is not and should not be illegal.\textsuperscript{203} A policy choice between the regulatory and property models thus would have dispositive consequences in this particular controversy.

VI. CONCLUSION

This Article does not presume to resolve the weighty issue of whether or not information is considered property. Its goal is more modest: To review


\textsuperscript{199}. Patterson, supra note 196, at 59-62.

\textsuperscript{200}. Id. at 40-48.

\textsuperscript{201}. OTA Report, supra note 5, at 192.

\textsuperscript{202}. See, e.g., id. at 99-121 (concerning efforts of intellectual property owners to combat "piracy" of their products).

\textsuperscript{203}. Id. at 122.
two recent cases which have taken a dramatic plunge into a sea of as yet unknown consequences by declaring that information is property, to point out the weaknesses in the rationales offered by the Court for this proposition, and to urge more caution in using property labels in legal disputes concerning information. The traditional view of information as something not ownable may still be viable; at a minimum, it may deserve an arena in which to operate. In order for the information economy to prosper in the Information Age, it simply may not be necessary or desireable to adopt a general legal doctrine that information is property.

However, to the extent that information is coming to be regarded as property, there is a clear need for some serious thought about how to draw lines between information that can be protected as property and information that cannot. One possible line of demarcation which would be consistent with the two recent Supreme Court decisions is that secret information is protectible as property until no longer secret. Another possible line might distinguish between complex patterns of information that have been fixed in some medium, such as the research results Monsanto submitted to EPA, which could be property, and individual or unfixed isolated bits of data, such as the Winans' stock recommendations, which would not be property. We must approach the process of drawing such distinctions carefully and deliberately, with full appreciation of the consequences of their inherent characterizations. A world in which all information is property under all circumstances is, at present, unthinkable. But arriving at a coherent theory concerning when information is property, and when it is not, is a task to which little thought has been given, and much must be.