Copyright Protection for Citations to a Law Reporter: West Publishing Co. v. Mead Data Central, Inc.

William L. Anderson

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In 1973, Mead Data Central, Inc. (Mead) introduced LEXIS, the first successfully marketed computerized legal research system. Along with the text of judicial opinions, LEXIS offered users citations to the same cases in the appropriate West Publishing Company (West) reporter. In 1985, LEXIS was developed in cooperation with the Ohio Bar Association. Rubin, *LEXIS: An Automated Research System*, in *Automated Law Research* 36 (1973). LEXIS became the first commercially successful computer-assisted legal research system. M. Cohen & R. Berring, *How To Find The Law* 693 (8th ed. 1983). The LEXIS data base contains, among other things, the full text of federal, state, and specialized court opinions, including some opinions that are not published anywhere else. *Id.* The data base is divided into libraries (for example, “GENFED,” containing general federal cases) and subdivided into files (within GENFED, for example, is the file “US,” containing the *United States Reports*). See Mead Data Central, Inc., *LEXIS Handbook* 5 (1980). Cases are retrievable through a “search” for key words within the libraries and files. For example, a search on the issue of claims for cancer resulting from asbestos exposure might be phrased, “asbestos w/7 cancer.” This search would produce all cases in the selected library containing “asbestos” within seven words of “cancer.” *Id.* at 6. The cases produced are displayed in order of decision, most recent first. The user may view and print either specific segments of a case or the full text.

In addition to full textual research, LEXIS also provides citator services, special search techniques (for example, the user can call up all decisions by a particular judge), and access to a wide variety of related data bases that are part of the Mead Data Central, Inc. (Mead) information system. See M. Cohen & R. Berring, *supra*, at 693-97; see generally Mead Data Central, Inc., *Guide to NEXIS and Related Services* (1985); Mead Data Central, Inc., *Reference Manual* (1985); Stanley, *LEXIS: Legal Research & Litigation Support* in *Legal and Legislative Information Processing* 149 (B. Eres ed. 1980). For a description of the market growth of LEXIS and its competition with West Publishing Company's (West's) WESTLAW system, see Abramson, Kennedy & Pollock, *Inside the West Empire*, Am. Law., Oct. 1985, at 90.


West publishes the widely used National Reporter System, a hardbound collection of federal and state opinions sorted by region, court, or type of deci-
Mead announced the addition of “star pagination,” a feature informing the LEXIS user of the location of internal page breaks within the West report of an opinion. With star pagination,

sion. The system sprang from the enterprising mind of West's founder, John B. West, in the late 1800s. Mr. West entered the market modestly by publishing a legal newspaper with the opinions of the Minnesota Supreme Court. Within eight years, his company's reporters encompassed both federal and state opinions covering the entire nation. Although regional law publishers fought back, the legal profession deluged West with orders because of its speed, accuracy, nationwide coverage, and low cost. The company's success rapidly drove each of its major competitors to abandon its publication, leaving West alone and dominant by 1889. No other publisher seriously challenged West's position until the advent of Mead's LEXIS. See W. MARVIN, WEST PUBLISHING COMPANY: ORIGIN, GROWTH, LEADERSHIP 30-49, 121 (1969) (describing the development of the National Reporter System and West's initial competitors); see also Woxland, “Forever Associated with the Practice of Law”: The Early Years of the West Publishing Company, 5 LEGAL REFERENCE SERVICES Q. 115 (1985) (reviewing West's history in the early years); see generally Young, A Look at American Law Reporting in the 19th Century, 68 LAW LIBR. J. 294 (1975) (reviewing the attitudes of the legal profession toward the revolution in the publishing industry in the late 1800s).

The LEXIS challenge prompted West to develop its own computerized legal research system, WESTLAW. Because WESTLAW offers essentially the same features as LEXIS, the two are intensely competitive. J. KINSOCK, LEGAL DATABASES ON LINE: LEXIS AND WESTLAW xiii (1985). The competition has greatly benefited the legal profession because both companies strive for increased services at lower costs while assimilating the advantageous characteristics of the other. Id. at 77. Comparison of the two systems produces no clear superiority. Both systems have full-text retrieval, citator capability, and similar libraries. Both have dedicated terminals, i.e., produced especially for LEXIS or WESTLAW use, or may be used with certain personal computers. Id. WESTLAW may cost slightly less, but cost comparison is difficult due to their different methods of calculating expenses. See id. at 49-58 (comparing the economics of LEXIS and WESTLAW). According to one source, in 1983 LEXIS sales outpaced WESTLAW nine to one because of West's late start and early design problems. Abramson, Kennedy & Pollock, supra note 1, at 91. If this source accurately measured WESTLAW's position, West has made dramatic progress. According to a 1986 survey of 192 law firms by the IIT Chicago-Kent College of Law, LEXIS's edge in sales was just eight to five. See Blodgett, More Law Firms are Byte-Sized, A.B.A. J., Feb. 1, 1987, at 19.


Star pagination is neither new nor unique to LEXIS. Eighty years ago, the publishers of the United States Supreme Court Reports, Lawyers' Edition successfully used and defended in court its star pagination to the official United States Reports. See Banks Law Publishing Co. v. Lawyers' Co-op. Pub-
LEXIS users would no longer need West’s hardbound reporters to determine the location of material within a West case report. Envisioning decreased demand for its reporters, West sued, claiming copyright infringement. The United States Dis-

lishing Co., 169 F. 386, 386 (2d Cir. 1909). In addition, star pagination is currently used by West itself in its Supreme Court Reporter (reproducing the page breaks of the United States Reports, published by the United States Government Printing Office); its California Reporter (reproducing the page breaks of the official California Reports and California Appellate Reports, both published and copyrighted by Bancroft-Whitney); and its New York Supplement through volume 200 (reproducing the page breaks in the official New York Reports, Appellate Division Reports, and Miscellaneous Reports, all published by Lawyers Co-operative Publishing Company and copyrighted by the New York Secretary of State). See also West Publishing Co., 799 F.2d at 1235 (Oliver, J., dissenting in part) (arguing that the long, traditional use of star pagination, including that by West itself, weakens West’s claim).

LEXIS’s competitor, WESTLAW, see supra note 2, does not currently offer star pagination to West’s reporters. If LEXIS were able to offer star pagination, it would gain a temporary advantage over WESTLAW until West could complete a similar improvement to WESTLAW. On the other hand, if West ultimately succeeds in preventing LEXIS’s star pagination, WESTLAW will gain a permanent and significant advantage over LEXIS if West chooses to add star pagination to WESTLAW. West, however, may be hesitant to do so for the same reason it wishes to prevent Mead’s star pagination. That is, West may fear the potential damage to its reporter market. See infra notes 104, 147 (discussing possible effects of star pagination on West’s market).

4. West Publishing Co., 799 F.2d at 1222. Although the district court and the court of appeals both recognized the detrimental effect of revealing the location of the page breaks within a West case report, neither court identified the importance of that location. See West Publishing Co. v. Mead Data Cent., Inc., 616 F. Supp. 1571, 1579 (D. Minn. 1985), aff’d, 799 F.2d 1219, 1228 (8th Cir. 1986), cert. denied, 107 S. Ct. 962 (1987). The importance of the location of material within a West case report derives from the general requirement that internal page numbers must be set forth in citations to specific material within a judicial opinion. See, e.g., HARVARD LAW REVIEW ASS’N, A UNIFORM SYSTEM OF CITATION 17 (14th ed. 1986) (requiring internal page citations) [hereinafter BLUE BOOK]; M. PRICE, H. BITNER & S. BYSIWIECZ, EFFECTIVE LEGAL RESEARCH 500 (4th ed. 1979) (noting requirement of “spot page references” to specific pages). For a description of West’s role in citations to opinions, see infra note 111.

5. West Publishing Co., 799 F.2d at 1222. West is no stranger to the courtroom. In its early years, West strenuously litigated its right to obtain state opinions before official state publication by rival publishers. For example, West joined Gould Publishing Company and Lawyers Co-operative Publishing Company in 1885 in resisting copyright protection for Connecticut’s opinions. In re Gould, 53 Conn. 415, 416, 2 A. 886, 886 (1885) (state court refused to force the state reporter to provide opinions to any publisher other than the official state publisher, Banks & Brothers). Three years later, Connecticut attempted to prevent the same parties from publishing opinions already obtained. Connecticut v. Gould, 34 F. 319, 319-20 (C.C.N.D.N.Y. 1888) (federal court held that because the state could not copyright its opinions, other publishers were free to publish them prior to official publication). Encouraged by this result, West, through its employee Peck, sued the Connecti-
district Court for the District of Minnesota granted a preliminary injunction. On Mead's appeal, the United States Court of Ap-
cut reporter, Hooker, to compel distribution of opinions. Peck v. Hooker, 61 Conn. 413, 419-20, 23 A. 741, 751 (1892) (state court held that, although the state might not copyright its opinions, it nevertheless retained the ability to control their publication; the reporter therefore need not deliver opinions to rival publishers). See also Banks & Bros. v. West Publishing Co., 27 F. 50, 60 (C.C.D. Minn. 1886) (opinions of judges are common property of all people and can be published in advance of the official state reports); Ex parte Brown, 166 Ind. 593, 612-13, 78 N.E. 553, 559 (1906) (court allowed state supreme court clerk to furnish opinions to West for advance publication); Nash v. Lathrop, 142 Mass. 29, 38-39, 6 N.E. 559, 562-63 (1886) (court prevented attempt by state reporter to withhold opinions from a legal newspaper publisher after West and Lawyers' Co-operative began obtaining opinions also). In addition, West has fought several times to protect the copyright in its headnotes and other original material. See, e.g., West Publishing Co. v. Edward Thompson Co., 176 F. 833 (2d Cir. 1910); West Pub. Co. v. Lawyers' Co-op. Pub. Co., 64 F. 360 (C.C.N.D.N.Y. 1894), modified, 79 F. 759 (2d Cir. 1897).


West also recently prevented another form of computer appropriation when a research company attempted to put West's key number digest indexes on computer. Computer Searching Serv. Corp. v. J. Ryan, 439 F.2d 6 (2d Cir. 1971). Even the present combatants have tangled before. In 1976, Mead sued West for antitrust violations resulting from West's alleged preferential access to court opinions. Mead eventually dropped the suit. See Abramson, Kennedy & Pollock, supra note 1, at 91 (describing West's recent legal activity). West has rarely lost on any of these issues.

Rather than quieting West's litigiousness, the present case has forced West to assert new claims in court. Bancroft-Whitney Co. recently filed a suit against West for a declaratory judgment. Bancroft wants to use West's numbering system for certain statutes that the Texas Legislature failed to number. See Brief Amicus Curiae of the Lawyers Co-Operative Publishing Co. at 11-12, Mead Data Cent., Inc. v. West Publishing Co., 107 S. Ct. 962 (1987) (No. 86-891) [hereinafter Lawyers Co-op. Brief Amicus Curiae].

6. West Publishing Co. v. Mead Data Cent., Inc., 616 F. Supp. 1571 (D. Minn. 1985), aff'd, 799 F.2d 1219 (8th Cir. 1986), cert. denied, 107 S. Ct. 962 (1987). The district court considered four factors in deciding whether to grant the injunction: (1) the probability of West's success on the merits at trial; (2) the threat of harm to West resulting from a denial; (3) the balance of this harm against the harm to Mead if the injunction were granted; and (4) the public interest in an injunction. See id. at 1575 (citing Dataphase Sys., Inc. v. C.L. Systems, 640 F.2d 109 (8th Cir. 1981)). The court of appeals adopted the same standard in determining whether to affirm the district court's decision to grant the preliminary injunction. See West Publishing Co., 799 F.2d at 1222-23.
peals for the Eighth Circuit affirmed the injunction pending trial, holding that West would likely succeed in showing that Mead’s addition of star pagination to LEXIS would infringe on the copyrighted arrangement of cases in West’s reporters.\(^7\)

Awakening the ghosts of a century-old conflict, West’s copyright claim raises the difficult and rarely litigated issue of copyright protection for page numbers.\(^8\) Because copyright

Because both courts discussed the heart of the copyright claim in conjunction with the first factor, the opinions and this Comment are primarily concerned with the Eighth Circuit’s analysis of West’s probable success at trial. See id. at 1223 (noting that Mead’s principal contention was that West would not succeed on the merits of its claim).

In addition to granting West’s motion for a preliminary injunction, the district court also denied a motion by Mead to dismiss based on failure to state a claim upon which relief may be granted. West Publishing Co., 616 F. Supp. at 1575.

7. West Publishing Co., 799 F.2d at 1219. After its affirmation, the Eighth Circuit returned the case to the district court for trial on the merits. Anticipating lengthy and complex litigation, on February 18, 1987, the district court appointed Professor Irving Younger of the University of Minnesota Law School as special master. Professor Younger will resolve all contested discovery issues, including those raised by the parties’ appeals to the district court of the decisions of the United States Magistrate.


The Eighth Circuit’s discussion of the merits of the copyright claim is not technically binding on the subsequent trial court because a full record had not been developed before the appellate review of the preliminary injunction. See West Publishing Co., 799 F.2d at 1227 (court’s holding subject to reexamination after the record has closed); see also id. at 1229 (“The District Court’s findings, and our observations as to the governing law made in this opinion, are tentative and provisional, in the sense that different findings or conclusions might be warranted after a trial on the merits.” (citing Independent Fed’n of Flight Attendants v. Trans World Airlines, Inc., 655 F.2d 155, 159 (8th Cir. 1981))). Nevertheless, although new facts may enhance the record, they are not likely to persuade the district court to challenge the appellate court’s broadly stated analysis and conclusive holdings. See West Publishing Co., 799 F.2d at 1321-32 (Oliver, J., dissenting in part) (criticizing the extent of the majority’s comments on the merits under an abuse of discretion review standard).

8. During the legal publishers’ wars of the late 1800s and early 1900s, the issue of copyrighting case arrangement and pagination arose twice. See Callaghan v. Myers, 128 U.S. 617 (1888); Banks Law Publishing Co. v. Lawyers’ Co-op. Publishing Co., 169 F. 386 (2d Cir. 1909). See infra notes 73-88 and accompanying text for an analysis of these two cases. Only one court held squarely on the issue of copyright protection of page numbers. In Banks, the court held that an official reporter could not copyright the pagination of its law reports. See Banks Law Publishing Co., 169 F. 386 and infra notes 81-85 and accompa-
generally requires some degree of creative authorship,9 mechanically assigned page numbers are a suspect candidate for copyright protection.10 In addition, the law's refusal to protect systems such as a page numbering scheme heightens the suspicion.11 West's claim suffers further complications from the legal community's dependence on page numbers in citing volumes of law.12 Failure to protect West's page numbers, however, may deprive West of the fruit of its substantial labor in compiling and publishing opinions.13

nying text for an analysis of this case. The same court later rejected a copyright infringement claim based on duplication of the paging of a document in the public domain. Eggers v. Sun Sales Corp., 263 F. 373 (2d Cir. 1920).

9. See infra note 22 (discussing creativity requirement).

10. See West Publishing Co., 799 F.2d at 1237 (Oliver, J., dissenting in part) (arguing that mechanically produced page numbers lack originality). Because copyright law protects only original works of authorship, a court should require a publisher to demonstrate some originality in its page numbers to obtain a copyright in them. See infra notes 19-23 and accompanying text (discussing originality requirement); infra notes 50-62 and accompanying text (discussing originality problems in copyrighting a referencing number system); infra notes 97-98 and accompanying text (describing the West court's circumvention of the originality problem).

Other challenges raised by Mead and the dissenting judge include arguments that page numbers are an uncopyrightable system, see West Publishing Co., 799 F.2d at 1228; that page numbers are uncopyrightable facts, see id.; and that page numbers are not original works of authorship, see id. at 1237 (Oliver, J., dissenting in part). See also infra note 101 (discussing the court's responses to Mead's and the dissenting judge's arguments).

11. See 17 U.S.C. § 102(b) (1982) (copyright protection does not extend to ideas or systems). See also infra text accompanying notes 29-32 (discussing courts' refusal to give copyright protection to ideas); infra text accompanying notes 128-32 (refuting the idea/expression challenge to West's claim).

12. Page numbers are essential in legal writing to provide specific citations to authority supporting each point of law. See W. Statkys & R. Wernet, Case Analysis and Fundamentals of Legal Writing 549 (1977). See also Blue Book, supra note 4, at 17; M. Price, H. Bitner & S. Bysiewicz, supra note 4, at 500. Legal citations normally include the volume name and number, and page numbers locating the material within a volume. See Blue Book, supra note 4, at 15, 17, 44; W. Statkys & R. Wernet, supra, at 27.

13. The primary goal of copyright law is to ensure that the public benefits from creative efforts. See infra notes 17 & 18. To achieve this goal, copyright law must to some degree reward the creator. See Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984) (stating that monopoly privileges of copyright are a means to motivate creative efforts for the ultimate benefit of the public); Mazer v. Stein, 347 U.S. 201, 219 (1953) ("The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare . . . . Sacrificial days devoted to such creative activities deserve rewards commensurate with the services rendered."); see also infra note 17 (citing cases discussing copyright law's purposes); see generally 1 M. Nimmer, Nimmer on Copyright § 1.08[A] (1986) (discussing the necessity of the copyright monopoly for the full realization of creative activi-
This Comment analyzes the Eighth Circuit's decision that West would likely succeed at trial in protecting its page numbers. Part I discusses the principles relevant to the copyright of reference works and summarizes the limited case law specificities. West's claim rests heavily on the presumption that LEXIS's star pagination feature will reduce the legal community's need to buy West's hardbound reporters and thus destroy West's reward for its publishing efforts. See infra note 112 (noting the West court’s concern for the market effect); infra notes 146-47 (discussing the probability of star pagination's market effect on West's reporters).

Considering the computer's advantage in speed, economy of space, and flexibility, perhaps the replacement of hardbound reporters by computers is ultimately inevitable regardless of star pagination. If so, West may only delay the loss of its reporter market. Before relying on the irresistible attraction of computers, however, a prognosticator should consider the strength of anti-computer bias. In a scene from a Star Trek episode, Captain Kirk faced a court-martial for culpable negligence. His attorney, whom Kirk had not yet met, had moved into Kirk's apartment, accompanied by stacks of law books (looking suspiciously like West volumes). As Kirk enters his apartment, he complains about the clutter. The following dialogue ensues:

Attorney: What's the matter, don't you like books?
Kirk: Oh, I like them fine, but a computer takes less space.
Attorney: A computer, eh? I got one of these in my office [shows computer terminal to Kirk]; contains all the precedents, the synthesis of all the great legal decisions written throughout time. Ugh! I never use it.
Kirk: Why not?
Attorney: I got my own system. Books, young man, books. Thousands of them. If time wasn't so important, I'd show you something: my library, thousands of books.
Kirk: What would be the point?
Attorney: This is where the law is, not in that homogenized, pasteurized, synthesized .... Do you want to know the law, the ancient concepts in their own language, learn the intent of the men who wrote them, from Moses to the Tribunal of Alpha III? Books.
Kirk: You have to be either an obsessive crackpot who's escaped from his keeper or Samuel T. Cogley, Attorney-at-Law.
Attorney: Right on both counts.

Star Trek Court-Martial (television broadcast Feb. 2, 1967) (available on videocassette distributed by Paramount Pictures, Corp.). No doubt many twentieth-century practitioners who share a philosophy similar to Mr. Cogley's will keep West and other hardbound reporter publishers in business for some time.

14. For the purposes of this Comment, a reference work is one that locates information. A reference work may refer the user to another publication. Indexes and bibliographies are examples of this type of reference work. A second type of reference work contains locatable information in itself. The information in a law reporter or version of the Bible, for example, is intended to be referenced by citations to those volumes. The latter type of reference work differs from ordinary repositories of information, such as newspapers, because the ability to reference the work is a primary purpose in its publication. This Comment contends that a law reporter is a reference work whose copyright should be judged accordingly.
cally addressing copyright in case arrangement and pagination of law reporters. Part II describes and critiques the Eighth Circuit's reasoning in *West* and offers an alternative basis for protecting West's page numbers. The Comment concludes that although the Eighth Circuit's dependence on an original case arrangement is misplaced, copyright law nevertheless offers limited protection for citations to reference works such as West's law reporters.

I. COPYRIGHT PROTECTION FOR A REFERENCE WORK

A. THE PRINCIPLES GOVERNING COPYRIGHT IN A REFERENCE WORK

A reference work's copyrightability is subject to certain fundamental principles. Copyright law recognizes that society benefits from the encouragement of creative activity. The law therefore rewards the effort of creating a beneficial new work by granting control over use of the work to the creator. The creator's exclusive rights, however, must not utterly deprive the public of the benefit of the new creation. Thus, copyright law should set a level of protection that sufficiently encourages creative endeavors while simultaneously ensuring some public access to the creation's benefits.

15. See Fox Film Corp. v. Doyal, 286 U.S. 123, 127 (1932) ("The sole interest of the United States and the primary object in conferring the [copyright] monopoly lie in the general benefits derived by the public from the labors of authors."). To pursue this goal, the Constitution grants Congress the power to "promote the Progress of Science and Useful Arts," and Congress is instructed to do so "by securing . . . to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." U.S. Const. art. I, § 8, cl. 8.

16. The law secures certain rights for the creator by providing the incentive necessary for individual creative effort and thus promotes the intended progress of science and the arts. See supra note 13. The result is a limited copyright monopoly as a necessary condition to the full realization of creative activities. 1 M. Nimmer, supra note 13, § 1.03[A], at 1-32. The owner's rights include exclusive control over reproduction, publication, and dissemination. See 17 U.S.C. § 106 (1982).

17. Copyright law justifies the creator's monopoly as a means to benefit the public, not the individual creator. See Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 n.10 (1984) (Copyright legislation "is not based upon any natural right that the author has in his writings, . . . but upon the ground that the welfare of the public will be served . . . "). (quoting H.R. REP. No. 2222, 60th Cong., 2d Sess. 7 (1909))); National Business Lists, Inc. v. Dun & Bradstreet, Inc., 552 F. Supp. 89, 91-92 (N.D. Ill. 1982) (stating that the copyright act was enacted to further the public interest and not the interests of those seeking to profit from their intellectual properties).

18. In Sony Corp. of Am., the Supreme Court stated:
A reference work's copyrightability is governed by doctrines developed to provide both creative reward and public access to the work. Foremost among these doctrines is the originality requirement. Statutory copyright protection extends only to “original works of authorship.” The law thus establishes originality as the dividing line between protected and unprotected works. Under traditional copyright doctrine, a work must not only be more than a copy of an existing work, it must also evidence some creativity to meet the originality requirement. A creator, however, need show very little creative

“In enacting a copyright law Congress must consider . . . two questions: First, how much will the legislation stimulate the producer and so benefit the public; and, second, how much will the monopoly granted be detrimental to the public? The granting of such exclusive rights, under the proper terms and conditions, confers a benefit upon the public that outweighs the evils of the temporary monopoly.” 464 U.S. at 429 n.10 (quoting H.R. Rep. No. 2222, 60th Cong., 2d Sess. 7 (1909)). See Sid & Marty Krofft Television Prods. v. McDonald’s Corp., 562 F.2d 1157, 1163 (9th Cir. 1977) (recognizing the competing social interests of rewarding an individual's creativity and permitting use of the benefits of the creation).

A creator's monopoly over ideas or creations may destroy the use of those ideas or the ability of future creators to build upon them. See Morrissey v. Procter & Gamble Co., 379 F.2d 675, 678 (1st Cir. 1967) (stating that copyright might “exhaust all possibilities of future use of the substance”); Crume v. Pacific Mut. Life Ins. Co., 140 F.2d 182, 183 (7th Cir.) (stating that copyright may frustrate the dissemination of scientific and useful knowledge), cert. denied, 322 U.S. 755 (1944). Nimmer argues that a copyright monopoly is unjustified if it does not benefit the public. 1 M. Nimmer, supra note 13, § 1.03[A], at 1-32. As a result, courts should award copyright protection only when the monopoly will result in sufficient public benefit.

19. See Kamar Int’l v. Russ Berrie & Co., 657 F.2d 1059, 1061 (9th Cir. 1981) (“originality is the sine qua non of copyrightability”); 1 M. Nimmer, supra note 13, § 2.01, at 2-5 (originality is the “one pervading element requisite to copyright protection”).
21. The statutory phrase actually requires not just originality but also authorship. See supra note 20. Authorship, however, blends into originality because an author is simply “he to whom anything owes its origin; originator; maker.” Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 58 (1884) (attributing quote to Worcester); see also 1 M. Nimmer, supra note 13, § 1.06[A], at 1-37 (“Originality . . . may be said to be the essence of authorship.”).
22. Originality encompasses both a prohibition against copying an existing work, see Alfred Bell & Co. v. Catalda Fine Arts, Inc., 191 F.2d 99, 103 (2d Cir. 1951); 1 M. Nimmer, supra note 13, § 2.01[A] and cases cited therein, and a requirement of some degree of intellectual thought, labor, or creativity, see, e.g., Goldstein v. California, 412 U.S. 546, 561 (1972) (the writings of an author may be “the fruits of creative intellectual or aesthetic labor”); The Trade-mark Cases, 100 U.S. 82, 94 (1879) (writings are protected only if they are “founded in the creative powers of the mind” and “the fruits of intellectual labor”); Duff v. Kansas City Star Co., 299 F.2d 320, 323 n.2 (8th Cir. 1962) (work must be “the product of the mind and genius of the author” (quoting 2 H. Nimmer, Un-
effort or variation from existing works to obtain copyright privileges. This low threshold is justified by the limited protec-

FAIR COMPETITION AND TRADEMARKS § 272, at 889 (4th ed. 1947)); see also 1 M. NIMMER, supra note 13, § 1.06[A], at 1-37 (“[O]riginality itself must exhibit a modicum of intellectual labor in order to constitute the product of an author.”) and cases cited therein; see generally Denicola, Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works, 81 COLUM. L. REV. 516, 521-22 (1981) (discussing the creativity requirement and copyrights in compilations of facts). Courts generally treat these requirements interchangeably. 1 M. NIMMER, supra note 13, § 1.08[C][1], at 1-48. But see id. § 2.01[B], at 2-13 (greater clarity of expression results if originality and creativity are considered as separate elements); accord Denicola, supra, at 521 n.28 (it may be more efficient to restrict the idea of originality to copying and to consider creative intellectual effort separately). The West court adopted Nimmer's distinction by requiring both intellectual effort and originality. See West Publishing Co. v. Mead Data Cent., Inc., 799 F.2d 1223, 1227 (8th Cir. 1986), cert. denied, 107 S. Ct. 962 (1987). See also infra note 98 (providing a fuller description of the Eighth Circuit's analysis).

23. See Alfred Bell & Co., 191 F.2d at 102-03 (describing originality as little more than a prohibition of actual copying (citing Hoague-Sprague Corp. v. Frank C. Meyer, Inc., 31 F.2d 583, 586 (E.D.N.Y. 1929))); 1 M. NIMMER, supra note 13, § 1.08[C][1], at 1-49 (discussing the creativity requirement, stating that “almost any ingenuity in selection, combination or expression, no matter how crude, humble or obvious, will be sufficient to render the work a writing”).

24. See L. Batlin & Son v. Snyder, 536 F.2d 486, 490 (2d Cir.) (“The test of originality is concededly one with a low threshold . . . .”), cert. denied, 429 U.S. 857 (1976). Courts occasionally inject some bite into the otherwise low threshold of originality. Drawing on the prohibition against copying, some courts reject merely trivial variations. For instance, after conceding the low threshold of originality, the court in L. Batlin & Son rejected the use of a different medium in an art reproduction as a trivial variation. Id. at 491. See also Grove Press, Inc. v. Collectors Publication, Inc., 264 F. Supp. 603, 605 (C.D. Cal. 1967) (plaintiff's correction of 40,000 grammatical, punctuation, spelling, and typographical errors in public domain document were too trivial for copyright). Other courts require a “modest” degree of originality. See, e.g., Durham Indus., Inc. v. Tomy Corp., 630 F.2d 905, 911 (2d Cir. 1980) (rejecting distinction in toys as less than a “modest degree of originality”); Chamberlin v. Uris Sales Corp., 150 F.2d 512, 513 (2d Cir. 1945) (stating that work must contain some substantial, not merely trivial, originality). Stricter originality standards may also flow from the creativity requirement. See, e.g., L. Batlin & Son, 536 F.2d at 491-92 (rejecting copyright in a plastic duplication of metal bank because it lacked artistic skill and substantial variation from the original).

An intensified originality examination may be more or less likely depending on the type of work involved. For example, courts require a higher level of originality for reproductions of art works, see Durham Indus., Inc., 630 F.2d 905; L. Batlin & Son, 536 F.2d 486, legal and business forms, see Donald v. Uarco Business Forms, 478 F.2d 764 (5th Cir. 1973); M.M. Business Forms Corp. v. Uarco, Inc., 472 F.2d 1137 (6th Cir. 1973), or elements of maps, see Rockford Map Publishers, Inc. v. Directory Serv. Co. of Colo., 768 F.2d 145 (7th Cir. 1985), cert. denied, 106 S. Ct. 806 (1986); United States v. Hamilton, 583 F.2d 448 (9th Cir. 1978); Christianson v. West Publishing Co., 149 F.2d 202 (9th Cir. 1945). On the other hand, telephone directories and other compilations of facts need little originality. See infra notes 40-41 and accompanying
tion afforded by copyright. For example, copyright protection is limited to the original contributions to the work, to the expression of the work and not its underlying idea, and to the prevention of only substantially similar, unfair uses.

Two limitations on copyright protection, the idea/expression and fair use doctrines, are particularly relevant to reference works. The idea/expression distinction allows a creator to protect only the particular expression of an idea, not the idea itself. The idea thus remains available for others' use. Despite difficulty in distinguishing ideas from their expressions,

text (discussing copyright of fact compilations). The originality requirement is more likely to be weakened when a work lacking creativity nevertheless exhibits usefulness worth protecting. See Denicola, supra note 22, at 521-22; infra note 41.

25. See Herbert Rosenthal Jewelry Corp. v. Kalpakian, 446 F.2d 738, 741 (9th Cir. 1971) ("A copyright affords little protection."); Olson, Copyright Originality, 48 Mo. L. Rev. 29, 34, 61 (1983) (Because "[c]opyright is a severely limited form of protection," the grant of a copyright should not be strenuously contested.) See also B. KAPLAN, AN UNHURRIED VIEW OF COPYRIGHT 44 (1967) ("With the originality concept correctly installed as central, copyright appeared as relatively easy to achieve but as correspondingly modest in its pretensions to monopoly.").

26. See 17 U.S.C. § 103(b) (1982) ("The copyright in a compilation or derivative work extends only to the material contributed by the author of such a work, as distinguished from the preexisting material employed in the work, and does not imply an exclusive right in the preexisting material.").

27. See infra notes 29-32 and accompanying text (discussing the prohibition on copyrighting ideas).

28. See infra notes 35-38 and accompanying text (discussing the fair use defense). See generally Denicola, supra note 22, at 522-24 (discussing the limitations on the protection that results from acquiring a copyright).

29. Mazer v. Stein, 347 U.S. 201, 217-18 (1954); Baker v. Selden, 101 U.S. 99, 102-03 (1879); Toro Co. v. R & R Prods. Co., 787 F.2d 1208, 1212 (8th Cir. 1986); Sid & Marty Krofft Television Prods. v. McDonald's Corp., 562 F.2d 1157, 1163 (9th Cir. 1977); E.F. Johnson Co. v. Uniden Corp. of Am., 623 F. Supp. 1485, 1500 (D. Minn. 1985); see 17 U.S.C. § 102(b) (1982) ("In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.").

30. For example, in Atari, Inc. v. Amusement World, Inc., the court allowed a software designer to copyright a specific video game involving a space ship fighting asteroids, but not the idea of a video game involving space ships fighting asteroids. 547 F. Supp. 222, 226-27 (D. Md. 1981).

31. So difficult is this distinction that some courts have abandoned the search for a principled dividing line between idea and expression, settling instead for ad hoc determinations. See Apple Computer, Inc. v. Franklin Computer Corp., 714 F.2d 1240, 1253 (3d Cir. 1983) ("Many of the courts which have sought to draw the line between an idea and expression have found difficulty in articulating where it falls."); cert. dismissed, 464 U.S. 1033 (1984); Peter Pan Fabrics v. Martin Weiner Corp., 274 F.2d 487, 489 (2d Cir. 1960) (L. Hand, J.)
courts do not hesitate to restrict the subject matter of copyright by preventing the protection of ideas.\textsuperscript{32} Rather than narrowing the subject matter of copyright, the fair use doctrine restricts the copyright owner's ability to prevent the public's use of the work. The owner of a valid copyright may prevent any copying of the protected work that constitutes an impermissible infringement.\textsuperscript{33} Infringement may be demonstrated if the creator of the second work had access to the first and the two works are substantially similar.\textsuperscript{34} The creator's right to prevent an infringing use, however, is weakened by the public's right to fair use of the work.\textsuperscript{35} Statutory criteria guide the determination of whether a use of a copyrighted work

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\item[32.] See, e.g., Baker v. Selden, 101 U.S. 99, 105-06 (1879) (granting or allowing copyright protection for bookkeeping forms would prevent the public's ability to use the idea of the creator's bookkeeping system); Eden Toys v. Marshall Field & Co., 675 F.2d 498, 500 (2d Cir. 1982) (common aspects of a toy snowman were not copyrightable because they are the idea of a snowman, not the expression of that idea); Brief English Sys. v. Owen, 48 F.2d 555, 556 (2d Cir. 1931) (denying copyright in a system of shorthand notation because it was the idea of the creator, not the expression of that idea); Signo Trading Int'l Ltd. v. Gordon, 535 F. Supp. 362, 364-65 (N.D. Cal. 1981) (citing Brief English Sys., the court denied copyright in a method of transliterating Arabic words).
\item[33.] 17 U.S.C. § 106 (1982) (listing the five fundamental rights of a copyright owner to control the use of the copyrighted work, including the exclusive right to reproduce the copyrighted work, to prepare derivative works based on the copyrighted work, to distribute copies to the public by sale, rent, lease or lending, to perform the copyrighted work publicly, and to display the work publicly). See also 3 M. Nimmer, supra note 13, § 13.01[A], at 13-4 (identifying the first element of an infringement action as that of copyright ownership, which includes proof of originality and copyrightability of the subject matter).
\item[34.] 3 M. Nimmer, supra note 13, § 13.01[B], at 13-6 ("Copying is ordinarily established indirectly by the plaintiff's proof of access and substantial similarity."). See Central Tel. Co. v. Johnson Publishing Co., 526 F. Supp. 838, 843 (D. Colo. 1981) (copying for infringement purposes may be shown by proving access to the telephone directory and substantial similarity between the plaintiff's and defendant's works).
\item[35.] Fair use is the "'privilege in others than the owner of a copyright to use the copyrighted material in a reasonable manner without [the owner's] consent . . . .'" Rosemont Enters. v. Random House, 366 F.2d 303, 306 (2d Cir. 1966) (quoting H. Ball, Copyright and Literary Property 260 (1944)), cert. denied, 385 U.S. 1009 (1967). Fair use is an equitable weapon wielded by courts to "avoid rigid application of the copyright statute when, on occasion, it would stifle the very creativity which that law is designed to foster." Iowa State Univ. Research Found. v. American Broadcasting Cos., 621 F.2d 57, 60 (2d Cir. 1980). The fair use defense is codified in 17 U.S.C. § 107 (1982). See Harper &
is fair. The most important criterion, the effect of the copy on the original's market, presumes an unfair use if the appropriating work performs the same function as the copyrighted work and thus potentially erodes its market.

Along with other copyright principles, originality, the idea/expression doctrine, and the fair use defense determine the scope of copyright protection. Like most areas of law, however, copyright has aberrant categories that defy the law's governing doctrines. Among these categories is the class of works consisting of compilations of facts, which lack even the minimal creativity required for originality. Departing from the tradi-
are sufficiently original. See Hutchinson Tel. Co. v. Fronteer Directory Co., 770 F.2d 128, 131-32 (8th Cir. 1985) (holding alternatively that a telephone directory's compilation of names and numbers is copyrightable as an original compilation because of the publisher's original efforts in gathering, sorting, and maintaining the information); Schroeder v. William Morrow & Co., 566 F.2d 3, 5 (7th Cir. 1977) (original compilation of names and addresses is copyrightable); Quinto v. Legal Times of Washington, Inc., 506 F. Supp. 554, 559 (D.D.C. 1981) (newspaper reporter could copyright his original collection of student interviews). Some original contributions to a compilation, however, may be too trivial for copyright. See, e.g., L. Batlin & Son, Inc. v. Snyder, 536 F.2d 486, 490-92 (2d Cir.) (change of medium for art work), cert. denied, 429 U.S. 867 (1976); Grove Press, Inc. v. Collectors Publication, Inc., 264 F. Supp. 603, 605-06 (C.D. Cal. 1967) (40,000 language corrections in public domain document); Hengst v. Early & Daniel Co., 59 F. Supp. 8, 10 (S.D. Ohio 1945) (changing a vertical fact table to a horizontal one); see generally 1 M. NIMMER, supra note 13, § 3.03, at 3-11 to -12 (listing types of contributions to preexisting works found by courts to be too trivial for an original work). Nimmer includes two pagination cases in this category, Eggers v. Sun Sales Corp., 263 F. 373 (2d Cir. 1920), and Banks Law Publishing Co. v. Lawyers' Co-op. Publishing Co., 169 F. 386 (2d Cir. 1909). Nimmer then contrasts these cases with the district court's decision in West Publishing Co. v. Mead Data Cent., Inc., 616 F. Supp. 1571 (D. Minn. 1985), aff'd, 799 F.2d 1219 (8th Cir. 1986), cert. denied, 107 S. Ct. 962 (1987), concluding that, unlike the earlier pagination cases, the West court found a change in pagination sufficiently original for copyright. 1 M. NIMMER, supra note 13, § 3.03, at 3-11 n.11. See infra notes 81-85 and accompanying text (discussing the Banks case); infra notes 92-96 (discussing the West appellate court's reading of Banks and its position on pagination originality).

Compilations of facts approach the trivial category but usually survive originality analysis. See Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539 (1985) ("Creation of a nonfiction work, even a compilation of pure fact, entails originality."). For example, telephone directories suffer originality anemia. Although usually not copied from any other work, directories involve very little of the creative intellectual effort that is traditionally required for originality. See supra note 22 (discussing the intellectual effort requirement). Neither the selection nor the arrangement of a directory's data meets even a minimal originality standard because both are dictated by circumstances. The selection of names is dictated by the corpus of telephone owners within a given area. See New York Times Co. v. Roxbury Data Interface, Inc., 434 F. Supp. 217, 222 n.2 (D.N.J. 1977) ("[T]he compilation of a telephone directory requires the compiler only to ascertain the fact of telephone subscribership; the compiler is not required to make any significant subjective judgment [in the selection of material]."). The arrangement of names is dictated by the alphabet. See Cooling Sys. & Flexibles, Inc. v. Stuart Radiator, Inc., 777 F.2d 485, 492 (9th Cir. 1985) ("Obviously an alphabetical list is not a protectible form of arranging proper names."). Elements dictated by circumstances do not have sufficient originality for copyright. Dow Jones & Co. v. Board of Trade of Chicago, 546 F. Supp. 113, 116 (S.D.N.Y. 1982). In spite of the lack of originality, directories are nevertheless copyrightable. See Hutchinson Tel. Co., 770 F.2d at 131 (noting that in passing the 1976 copyright statute, Congress ratified an unbroken line of cases holding telephone directories to be copyrightable) and list of cases cited therein.

Courts are often as generous to other compilations of facts. See, e.g., Schroeder v. William Morrow & Co., 566 F.2d 3 (7th Cir. 1977) (directory of
basis of originality, such as the selection or arrangement of data, to justify copyright protection for these works.41


41. See, e.g., Miller v. Universal City Studios, Inc., 650 F.2d 1365, 1369-70 (5th Cir. 1981) (copyright in a fact compilation protects the selection and arrangement of data); Keller, 30 F. at 773 (a social directory was original to the extent that the selection of names was original). Because the selection and arrangement of most fact compilations are dictated by circumstances, see supra note 40, judicial reliance on these elements amounts to little more than a technical excuse for an equitable copyright. See National Business Lists, Inc., 552 F. Supp. at 92-93 (Protection of the fruit of compilations of facts is “a doctrine in search of conceptual underpinnings,” but courts have nevertheless protected the compilers’ labors.). One commentator argues that the attitudes of these courts toward property and unjust enrichment produce an expansive interpretation of authorship in compilations to protect the fruits of diligence and perseverance. See Denicola, supra note 22, at 520. See also National Business Lists, Inc., 552 F. Supp. at 92 (compilations of facts deserve copyright because of their value in collecting data that would not otherwise be available). Another analyst suggests that factual work copyright derives from the inability of early courts to pare these works out of the all-inclusive statutory protection of “books,” coupled with the absence of any other type of protection for them. B. Kaplan, supra note 25, at 55.

Struggling with the originality problem, some courts protect the industriousness of the compiler of a directory. See, e.g., Schroeder, 566 F.2d at 5 (holding that an original directory of gardening supplies was copyrightable because “only ‘industrious collection’ ” is required for copyright (citing Jeweler’s Circular Publishing Co. v. Keystone Publishing Co., 281 F. 83, 87-88 (2d Cir.), cert. denied, 259 U.S. 581 (1922)); Leon v. Pacific Tel. & Tel. Co., 91 F.2d 484, 485-86 (9th Cir. 1937) (directory deserved copyright because compilation was an expensive, complicated, well-organized endeavor, requiring skill and ingenuity); Jeweler’s Circular Publishing Co., 281 F. at 92 (“The law of copyright only requires the subsequent compiler to do for himself that which the first compiler has done.” (citing Keller, 30 F. at 773)); Chain Store Business Guide v. Wexler, 79 F. Supp. 726, 728 (S.D.N.Y. 1948) (originality based on labor and expense). The directory cases thus deviate from the traditional copyright requirement of intellectual effort.

Some modern courts have stirred controversy by adopting and expanding this protection of industriousness. See Hutchinson Tel. Co., 770 F.2d at 131-32 (efforts of telephone company in compiling and generating the directory established it as an original work of authorship); Financial Information, Inc. v. Moody’s Investors Serv., 599 F. Supp. 994, 999 (S.D.N.Y. 1983) (protection of compiler’s diligence is essential as the only meaningful protection), remanded by 751 F.2d 501 (2d Cir. 1984); Rand McNally & Co. v. Fleet Management Sys., 591 F. Supp. 726, 733 (N.D. Ill. 1983) (factual compilation can be copyrighted if it rises to some level of effort and industry); National Business Lists, Inc., 552 F. Supp. at 92-95 (after an extensive analysis of industriousness versus originality theories, the court adopted the former). Cf. Denicola, supra note 22, at 527-35 (criticizing the traditional original arrangement basis of copyright for a
Reference works\textsuperscript{42} fall within this aberrant class of fact compilations. Analysis of a reference work copyright begins with a determination of the subject matter of its copyright. Although reference work copyright issues are rarely litigated,\textsuperscript{43} one court recently analyzed the subject in \textit{New York Times Co. v. Roxbury Data Interface, Inc.}\textsuperscript{44} The New York Times Company publishes the \textit{New York Times Index} annually, referencing articles in the \textit{New York Times} by alphabetical subject listings.\textsuperscript{45} Roxbury published a personal name index to the \textit{New York Times Index}, listing alphabetically all names mentioned in the latter and giving citations to the \textit{Index}.\textsuperscript{46} The United States District Court for the District of New Jersey identified the copyrighted subject matter of the \textit{New York Times Index} as the correlation between the subject matter of the index entry and the citation to articles on that subject in the newspaper.\textsuperscript{47} To infringe on this copyright, the court reasoned, the defendant must copy not merely the indexed subject or the citation alone, but rather the subject and the citation together, thus reproducing the copyrighted correlation.\textsuperscript{48} In this manner, copyright protected two individually uncopyrightable

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\item[42.] See supra note 14 (defining reference work).
\item[45.] Id. at 218.
\item[46.] Id. at 219. Because Roxbury cited to the \textit{Index} and not directly to the \textit{Times}, it avoided competing with the \textit{Index} and affecting its market. \textit{Id.} at 223-24.
\item[47.] \textit{Id.} at 220-21. For example, an individual's name together with the citation to stories about that individual form a copyrightable correlation.
\item[48.] \textit{Id.} at 220.
\end{enumerate}
\end{footnotesize}
items because of their correlation to each other.\textsuperscript{49} The subject matter of a reference work's copyright is therefore the correlation between its information and the citations referencing that information.

With its subject matter identified, a reference work must survive an originality challenge to be copyrightable. A typical reference work, like a fact compilation, has insufficient creativity to justify a copyright.\textsuperscript{50} Reference works, like fact compilations, however, are valuable because they collect useful preexisting material.\textsuperscript{51} Thus, as with fact compilations, courts should identify an alternative basis of originality in reference works to justify their copyright, despite their lack of traditional creativity.\textsuperscript{52}

Copyright of a reference work therefore requires the identification of some originality in the subject matter of the copyright that is an alternative to traditional creativity. In a recent case, \textit{Toro Co. v. R & R Products Co.},\textsuperscript{53} the Eighth Circuit used the rationality of a reference work's correlations as a measure of its originality. The Toro Company randomly assigned identifying numbers to the replacement parts for its lawn care equipment.\textsuperscript{54} R & R Products sold its own replacement parts for Toro equipment. R & R's catalog identified its parts with numbers identical to Toro's parts numbers except that an “R” pre-

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  \item \textsuperscript{49} \textit{Id.} at 221. Neither a person’s name nor a citation to the \textit{New York Times} is protected by copyright because both are uncopyrightable facts. Together, however, the name and citation constitute a copyrightable correlation the elements of which can be copied individually but not together.
  \item \textsuperscript{50} \textit{See supra} note 40 (discussing the originality problems of fact compilations). The \textit{New York Times Index} in \textit{Roxbury}, for example, used an unoriginal, alphabetical arrangement of subjects and public domain citations to the \textit{New York Times}. In spite of the prodigious efforts and costs in compiling the data, correlating these two uncopyrightable items required no real intellectual creativity. \textit{See Roxbury Data Interface, Inc.}, 434 F. Supp. at 221. Unless a compiler uses a novel arrangement or significant judgment in selecting among data, a reference work could not survive traditional originality scrutiny. \textit{See id.} at 222 nn.2 & 3.
  \item \textsuperscript{51} \textit{See supra} note 41 (discussing the value of fact compilations apart from their creativity).
  \item \textsuperscript{52} \textit{See id.} (discussing court reliance on an alternative basis for originality in a fact compilation). The \textit{Roxbury} case provides inferential support for a similar scrutiny of both fact compilations and reference works. The \textit{Roxbury} court likened the index in that case to directories in that both involve copyright of correlations. \textit{Roxbury Data Interface, Inc.}, 434 F. Supp. at 222. Because both reference works and directories have the same type of copyrightable subject matter, the level of originality scrutiny should be the same for both.
  \item \textsuperscript{53} 787 F.2d 1208 (8th Cir. 1986).
  \item \textsuperscript{54} \textit{Id.} at 1213.
\end{itemize}
Toro claimed a copyright in its parts numbers that was infringed by R & R's use of Toro's numbers for its own parts. Rejecting Toro's copyright claim, the Eighth Circuit concluded that the threshold of originality was not low enough to sustain a copyright in randomly assigned parts numbers. Instead, the court required a rational pattern in the correlation of the parts and their numbers that would evidence some effort or content in the assignment of the numbers. Thus, the Toro court based the parts numbers' originality on the rationality of the correlations of Toro's parts referencing system. Hinging copyright on the rationality of the reference work's correlations appropriately furthers copyright objectives by ensuring that any correlational work with public value will receive copyright protection.

The copyrightability of rational correlations should not be

56. Id.
57. Toro Co., 787 F.2d at 1213.
58. The Toro court did not use the word "rational," but the distinction is evident in the court's reiteration of the inadequacy of a "random" system, contrasted with the adequacy of one with a "meaningful pattern." See id. at 1213.
59. Id. Although the Eighth Circuit held that Toro's parts numbers needed a meaningful pattern to be copyrightable, see id., it was apparently searching for a rational relationship between the numbers and the parts rather than simply order in the numbers. The court pointed out that "[t]here was no evidence that a particular series or configuration of numbers denoted a certain type or category of parts ...." Id. The court thus described a necessary correlation between numbers and parts such that a part number would rationally identify a certain type of part.
60. In contrast to Toro's system, the correlations in Roxbury were rational and thus original because they referred users to articles on specific subjects in the Times. The correlation in Roxbury connected subjects of stories in the New York Times with citations to the volume, page numbers, and columns containing stories on those subjects. See New York Times Co. v. Roxbury Data Interface, Inc., 434 F. Supp. 217, 220 (D.N.J. 1977). A user could be certain that stories on a subject would be found at the citations correlated to the subject. This correlation would satisfy the Toro court's search for rationality, because each indexed subject denoted a certain type of story.
61. See supra notes 17 & 18 and accompanying text (discussing the objectives of copyright law).
62. A reference work that has random, irrational correlations will not only fail the originality inquiry but will also have no value to the public. For example, if the New York Times Index correlated subject matter and citations in a random manner, the user could not locate stories on the subject matter through the Index. A work with no covetable utility has no need of copyright protection because no infringer would attempt to appropriate it. The standard of utility, however, should not be so stringent that it encourages judicial assessment of a work's value. See Olson, supra note 25, at 61 (arguing that
undermined by an idea/expression attack. In addition to its originality analysis, the Toro court also provided a relevant idea/expression analysis of a reference work. The district court in that case relied on the statutory prohibition against copyrighting ideas or systems in holding that Toro could not copyright its parts numbering system. The Eighth Circuit, however, reasoned that Toro intended to protect only its specific parts numbers, not the system or idea of using numbers to identify parts. The appellate court therefore concluded that the numbers were the manufacturer's expression of an idea and thus potentially copyrightable. Under this approach, the numbers used in a reference work are a copyrightable expression of the idea of identifying and referencing the associated information.

Although a reference work's correlations should thus qualify for copyright protection, the fair use defense may restrict courts should avoid judging the value of a work in assessing its copyrightability).

The Toro court may have set its standard of rationality too high to protect all publicly useful works. By requiring rationality between each element of an individual correlation, the Toro court endangered some useful works that do not meet this standard. For instance, a telephone directory's individual correlations have no inherent rationality because the name of a telephone owner signifies nothing about the type of number that person has. A directory would thus fail the Toro test. Yet a directory has great public usefulness because the name-to-number correlations are ordered alphabetically, facilitating location of a particular person's number. To protect this usefulness, a court should grant a copyright based on the rationality in the order of the correlations, even though each individual correlation has no rational relationship.

Under this approach, Toro may have been wrongly decided. Even a random assignment of parts numbers has usefulness if those numbers are arranged in a way that allows a user to locate a part according to its number (like the ability to locate a number by looking up a name in a telephone directory). If Toro arranged its random parts numbers in a rational order in a catalog, for example, the correlations between the parts numbers and the parts should be copyrightable. Thus, although the Toro analysis is insightful, that court's standard may have been too strict to protect all correlational works of public usefulness.

63. See supra notes 29-32 and accompanying text (discussing the idea/expression dichotomy).
64. See 17 U.S.C. § 102(b) (1982). See also supra notes 29-32 (discussing the prohibition on copyrighting ideas or systems).
66. Toro Co., 787 F.2d at 1212.
67. Id. (although finding the manufacturer's numbers potentially copyrightable, the Eighth Circuit rejected Toro's copyright claim based on the parts numbering system's lack of originality). See supra notes 53-62 and accompanying text (discussing the Toro court's originality analysis).
the publisher's right to prevent use of its correlations. Works intended to be cited invite a fair use defense by holding their copyrighted citations out for public use.\footnote{68} Although conceding that general use of its citations is fair, a reference work's publisher should nevertheless be able to prevent a wholesale usurpation of the work's copyrighted subject matter if the usurping work performs the same function as the original work and potentially affects the original work's market.\footnote{69} Otherwise, the incentive to produce reference works diminishes in the face of a competitor's ability to copy and sell the work's valuable correlations. Use of a copyrighted reference work is therefore fair only if the use is not a wholesale, competing one.

In sum, under the principles of these cases, the owner of a reference work copyright may prevent wholesale and competitive use of correlations that are sufficiently rational to serve as the requisite alternative basis for copyright.

\footnote{68}{The fair use defense should be generously available for the user of a reference work. A court allowing a fair use does so in spite of the lack of consent to the use by the owner. \textit{See Rosemont Enters. v. Random House}, 366 F.2d 303, 306 (2d Cir. 1966) (stating that fair use occurs without the owner's consent), \textit{cert. denied}, 385 U.S. 1009 (1967). Thus, if a publisher consents to broad public copying of its material, the fair use defense should be available for all but the most egregious copying.

Reference works should be subject to broad fair use defenses for two other reasons as well. Works of diligence such as fact compilations receive less protection from public use than do works of creativity. \textit{New York Times Co. v. Roxbury Data Interface, Inc.}, 434 F. Supp. 217, 221 (D.N.J. 1977); \textit{see Benny v. Loew's, Inc.}, 239 F.2d 532, 536 (9th Cir. 1956) (availability of fair use for compilations, listings, and digests contrasted with that for creative dramatic works), \textit{aff'd by an equally divided Court sub nom. Columbia Broadcasting Sys. v. Loew's, Inc.}, 356 U.S. 43 (1958). Similarly, factual works receive less protection than works of fiction. \textit{Harper & Row, Publishers, Inc. v. Nation Enters.}, 471 U.S. 539 (1985). As a factual work of diligence, then, a reference work is subject to both these limitations on the scope of protection.

\footnote{69}{\textit{See supra} notes 37-38 and accompanying text (discussing the market effect limitation on fair use). \textit{See also} \textit{Frank Shephard Co. v. Zachary P. Taylor Publishing Co.}, 193 F. 991, 992-93 (2d Cir. 1912) (holding a competitor's substantial duplication of lists of citations an unfair infringement). \textit{Shephard} provides analogous support for the right of a reference work's publisher to prevent wholesale, competitive duplication. Like West, Shephard intended the data in its volume to be copied and used freely. Nevertheless, the court granted copyright protection when a user attempted to usurp Shephard's market by wholesale duplication of the otherwise freely usable data. \textit{See generally} \textit{Denicola, supra} note 22, at 527-35 (discussing the inability of an author to prevent a wholesale, market-effecting appropriation under the faulty but traditional arrangement-based copyright for compilations of facts).}
In addition to copyright theory, case precedent concerning law reporter copyright should illuminate the propriety of protecting page numbers. Unfortunately, American law offers only two factually similar cases, and both are somewhat dated and confusing. Early copyright decisions secured the public domain status of judicial opinions themselves by defeating attempts to copyright them. Later decisions, however, established a publisher's right to copyright its original contributions to a compilation of judicial opinions. As the courts focused on the dividing line between copyrightable original material and uncopyrightable judicial matter, case arrangement and pagination came under scrutiny.

70. See Callaghan v. Myers, 128 U.S. 617 (1888); Banks Law Publishing Co. v. Lawyers' Co-op. Publishing Co., 169 F. 386 (2d Cir. 1909). See infra notes 73-88 and accompanying text for full discussion. These cases were part of a much larger confrontation. The mid-1800s to early 1900s witnessed publisher warfare as the courts settled the ground rules of the new law reporting industry. The first skirmishes concerned the rights to judicial opinions and compilations thereof. See infra note 71. After opinions were judicially anchored in the public domain, publishers then clashed over the right to first publication. See, e.g., Banks & Bros. v. West Publishing Co., 27 F. 50 (C.C.D. Minn. 1886); Nash v. Lathrop, 142 Mass. 29, 6 N.E. 859 (1886). Further, as publishers began producing encyclopedias, digests, and citators for the burgeoning reporters, they litigated the right to appropriate lists of citations. See W.H. Anderson Co. v. Baldwin Law Publishing Co., 27 F.2d 82 (6th Cir. 1928); Frank Shephard Co. v. Zachary P. Taylor Co., 193 F. 991 (2d Cir. 1912); West Publishing Co. v. Edward Thompson Co., 176 F. 833 (2d Cir. 1910). By 1930, with rules in hand, those publishers still standing apparently shifted their conflicts to the marketplace.


72. See, e.g., Callaghan, 128 U.S. 617 (holding that the official reporter may copyright its compilation of opinions, including fact summaries, headnotes, arguments of counsel, title pages, tables of cases, and indexes).
The issue of copyrighting case arrangement and pagination first arose in 1888 in *Callaghan v. Myers.* In *Callaghan*, the publisher of the official Illinois state reports, Eugene Myers, claimed copyright in the case arrangement and pagination of his reporters. In its volume, Callaghan & Company duplicated Myers's arrangement and pagination to avoid confusion in citation. The Supreme Court held that Callaghan infringed on Myers's copyright in his compilation but stopped short of recognizing a copyright in Myers's arrangement and pagination. Dicta in the *Callaghan* opinion recognized the copyrightability of these aspects, but also stated that the labor required in arranging and paging law reports is "inconsiderable in itself" and therefore generally insufficient for copyright.

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73. 128 U.S. 617 (1888).
74. Id. at 621-22.
75. Id. at 660, 662. Callaghan should be commended for its idea of uniform citation. Had this idea prevailed, today's practitioners would have the luxury of a single citation that would locate the opinion in all publications. Any legal writer who has labored long over parallel citations will appreciate the value of Callaghan's attempt.

Callaghan also argued that Myers could not claim copyright in the Arabic numbered paging system and that page numbering is the result of a mechanical process and therefore not the author's work. One hundred years later, Mead's counsel and the dissenting opinion in *West* raised substantially the same arguments. See *West Publishing Co. v. Mead Data Cent., Inc.*, 616 F. Supp. 1571, 1579 (D. Minn. 1985), aff'd, 799 F.2d 1219, 1223 (8th Cir. 1986), cert. denied, 107 S. Ct. 962 (1987).

76. *Callaghan*, 128 U.S. at 647.
77. Because Callaghan also copied many other unquestionably copyrighted aspects of Myers's reports, such as the tables, headnotes, indexes, and syllabuses, the Court did not need to reach a holding on copyright in arrangement and pagination.

78. Id. at 649. The Court stated that the copyrightable work of the reporter included not only the title page, table of cases, headnotes, statements of facts, arguments of counsel, and index, but "comprehends also the order of arrangement of the cases, the division of the reports into volumes, [and] the numbering and paging of the volumes." Id.

79. Id. at 662. The Court adopted statements by the lower court that the labor would usually be inconsiderable because the arrangement and paging may be dictated by circumstances or the will of the printer, reporter, or publisher. Id. at 661-62.

80. Id. at 662. This may be a narrow reading of the somewhat confusing dicta in *Callaghan*. The *West* majority, for instance, preferred the broader interpretation that *Callaghan* "indicates that an original arrangement of opinions is copyrightable whenever it is the product of labor, talent, and judgment." *West Publishing Co.*, 799 F.2d at 1224. The majority, however, also admitted that "[t]he teaching of *Callaghan* . . . does not come through with unmistakable clarity." Id. at 1225. Further, the dissent disagreed sharply with the majority's interpretation. See id. at 1245 (Oliver, J., dissenting in part) ("[I]f pagination of a law report had been at issue in [*Callaghan*], the
Twenty years later, the second court to consider the issue expressly denied a publisher’s claim of copyright in case arrangement and pagination. In *Banks Law Publishing Co. v. Lawyers’ Co-operative Publishing Co.*, Banks Publishing sought to prevent star pagination to its official *United States Reports* in Lawyers’ Co-operative’s reporters. Citing *Callaghan*, the United States Court of Appeals for the Second Circuit held that Banks’s status as an official reporter defeated its copyright claim. The Second Circuit’s reasoning indicates that although *Callaghan* supported an official reporter’s right to copyright the arrangement of cases, the reporter may secure
such a copyright only if the statute creating the reporter's position does not require publication of the reports.\textsuperscript{85}

\textit{Banks} and \textit{Callaghan} together offer support for a publisher's copyright in arrangement and pagination, but only under very limited circumstances.\textsuperscript{86} Even this minimal support for copyright in case arrangement and pagination is tenuous, however, because both \textit{Banks} and \textit{Callaghan} contain many conflicting statements.\textsuperscript{87} Unfortunately, modern courts have no

\footnotesize

\textbf{Notes:}

\textsuperscript{85} Portions of \textit{Callaghan} do indeed support such a copyright, see \textit{Callaghan} v. Myers, 128 U.S. 617, 649 (1888). Other portions, however, contradict this conclusion by indicating that the labor involved in arranging and paging a reporter is insufficient for copyright, see id. at 661-62. The \textit{Banks} opinion used both portions to argue for both propositions. See \textit{Banks Law Publishing Co.}, 169 F. at 388, 389; see also infra note 85.

\textsuperscript{86} As support, the \textit{Banks} court cited \textit{Callaghan} again, this time to argue that no law reporter can copyright the arrangement and pagination of its reports. \textit{Banks Law Publishing Co.}, 169 F. at 390 (citing the circuit court dicta incorporated by the Supreme Court in \textit{Callaghan}). After citing this passage, the \textit{Banks} court concluded that \textit{Callaghan} would have won if he had copied only Myers's arrangement and page numbers. The appellate court apparently interpreted this dicta to imply that those qualities of a reporter are not copyrightable. This conclusion is contrary to the court's earlier holding that an official reporter "may secure copyright of the... arrangement or grouping of cases." See id. at 388.

\textsuperscript{87} The \textit{Banks} denial of copyright based on a statutory requirement of publication effectively precludes an official reporter from obtaining a copyright. It is highly unlikely that an official reporter will not be required to publish the reports and thereby have opportunity to copyright the arrangement. Even if the official reporter is required only to prepare the reports for publication, see \textit{Banks v. Manchester}, 128 U.S. 244, 244-54 (1888), preparation would probably include arranging the cases. Thus, the \textit{Banks} court left little room for copyright by an official reporter. \textit{Banks}'s statute-based denial of copyright conflicts with a forceful \textit{Callaghan} holding. The Court in \textit{Callaghan} stated that "in the absence of any [statutory] inhibition forbidding [the reporter] to take a copyright for that which is the lawful subject of a copyright in him... he is not deprived of the privilege of taking out a copyright, which would otherwise exist." \textit{Callaghan}, 128 U.S. at 647. This "tacit assent" to obtain a copyright must be affirmatively taken away by statute. See id. The statute in \textit{Banks} contained no affirmative denial of his right to a copyright. See \textit{Banks Law Publishing Co.}, 169 F. at 387. In spite of the conflict, the \textit{Banks} court cited the \textit{Callaghan} holding extensively. Id. at 388.

\textsuperscript{86} The cases' combined reasoning allows a publisher to obtain a copyright only if no statute requires publication and the arrangement and pagination are more original than a typical law report. See text accompanying supra notes 78-80 (discussing \textit{Callaghan}) and supra notes 83-85 (discussing \textit{Banks}). But see supra note 80 (different interpretation of \textit{Callaghan}).

\textsuperscript{87} See supra notes 80 & 83-85. The \textit{West} parties and court of appeals judges made diligent use of the potential for dispute inherent in \textit{Banks} and \textit{Callaghan}. Much of the argument in briefs and in the majority and dissenting opinions consisted of great wrangling over \textit{Banks} and \textit{Callaghan}. See \textit{West Publishing Co.}, 799 F.2d at 1219 (majority); id. at 1230 (dissent); Brief for Appellant, supra note 83, at 28-33; Brief for Appellee, supra note 3, at 11, 17-20;
other factually similar case law because *Banks* was the last of the arrangement copyright cases. The unresolved issue of copyrighting page numbers therefore awaited litigation by the computer generation.88

Reply Brief for Appellant at 8-10, West Publishing Co. v. Mead Data Cent., Inc., 799 F.2d 1219 (8th Cir. 1986) (No. 85-5399-MN), *cert. denied*, 107 S. Ct. 962 (1987). The district court found these two cases “of particular interest and importance in providing an analytic framework in which to consider the claims of the parties.” West Publishing Co. v. Mead Data Cent., Inc., 616 F. Supp. 1575-76 (D. Minn. 1985), *aff’d*, 799 F.2d 1219 (8th Cir. 1986), *cert. denied*, 107 S. Ct. 962 (1987). Because *Banks* and *Callaghan* do not provide any clear, uncontradicted conclusions, however, this Comment suggests that a rational evaluation of copyright purposes in light of current analogous cases—particularly *Toro* and *Roxbury*—will provide a better analytical framework than *Callaghan* and *Banks*. See *supra* notes 44-49 and accompanying text, notes 55-67 and accompanying text, and *infra* notes 115-133 and accompanying text for the analysis under *Toro* and *Roxbury*. Although a different three-judge panel heard each case, the Eighth Circuit Court of Appeals was responsible for both *Toro* and West. Presumably because the court did not perceive the relevance of *Toro*'s numbering system to West’s citations, however, the West tribunal made little use of the *Toro* holding and no use of its analysis. *See West Publishing Co.*, 799 F.2d at 1228.

In addition to the limited enlightenment provided by *Callaghan* and *Banks*, policy issues surrounding law reporting must be considered in assessing the copyrightability of a publisher’s case arrangement and pagination. Courts generally are willing to protect the fruit of a creator’s labor. *See Universal City Studios, Inc. v. Sony Corp. of Am.*, 659 F.2d 963, 965 (9th Cir. 1981) (“the real purpose of the copyright scheme is . . . achieved by reliance on the economic incentives granted to authors”), *rev’d on other grounds*, 464 U.S. 417 (1984). A court facing the issue of law report copyright, however, must consider the desirability of access to judicial opinions. *See, e.g.*, *Manchester*, 128 U.S. at 253 (judges’ whole work, as exposition of binding law, is free for publication to all); *Weaton v. Peters*, 33 U.S. (8 Pet.) 591, 688 (1834) (denying copyright in judicial opinions to protect public access to the law). In favoring the most rapid and efficient dissemination of opinions available, courts have protected not just some access, but maximum access to opinions. *See, e.g.*, *Connecticut v. Gould*, 34 F. 319, 319 (C.C.N.D.N.Y. 1888) (stating that public policy requires the fullest and earliest opportunity of access to opinions); *Nash v. Lathrop*, 142 Mass. 29, 6 N.E. 559, 559-61 (1886) (rejecting exclusive right of first publication in official publisher to allow fullest and earliest access to judicial opinions). West itself won many decisions over access to opinions because its system was much faster, broader, and more efficient than those of the official reporters. *See supra* note 5.

A copyright in a reporter’s page numbers conflicts with the policy favoring broad access to judicial opinions by restricting citation privileges. *Callaghan* dicta may support denial of page number copyright for this purpose. In considering Callaghan’s copying of Myers’s page numbers, the Supreme Court gave weight to Callaghan’s desire to avoid confusion in referencing. *See Callaghan*, 128 U.S. at 651-62. Thus, in stopping short of granting Myers a copyright in his page numbers, the *Callaghan* court may have been concerned over the efficiency of citing opinions. This maximum access policy may therefore require the court to weigh the necessity of protecting the publisher’s efforts against any restriction on citation.
II. COPYRIGHT PROTECTION FOR CITATIONS TO A LAW REPORTER

A. THE WEST DECISION

In West, West Publishing Company sought to enjoin Mead Data Central's use of star pagination to refer LEXIS users to the location of material within a West reporter. The district court granted a preliminary injunction, thereby preventing Mead's use of West's internal page numbers. In affirming, the Eighth Circuit bypassed the quandary of copyrighting page numbers by protecting West's numbers, whether copyrightable or not, because they reflected West's copyrighted case arrangement. Thus, Mead could not use the page numbers lest it infringe on West's case arrangement.

The court first rejected Mead's contention that Banks and Callaghan contained a per se rule against copyrighting case arrangement and pagination. Relying principally on Callaghan, the court concluded that an original arrangement of opinions is potentially copyrightable. The West court limited the holding

89. West Publishing Co., 799 F.2d at 1219.
90. Id. Because West conceded that LEXIS's inclusion of citations to the first page of its opinions was a fair use, only Mead's use of internal page numbers was at stake. Id. at 1222; West Publishing Co., 616 F. Supp. at 1579. LEXIS's inclusion of the first page citation is fair only if it does not adversely affect the market for West's hardbound reporters. See supra notes 35-38 and accompanying text (discussing fair use defense and market effect). Reasoning that first page citations would send a researcher to a West book rather than supplant the use of the book, the district court found no market damage from first page citations. See West Publishing Co., 616 F. Supp. at 1579; see also J. KINSOCK, supra note 2, at 55 (arguing that LEXIS's former expensive rates encouraged users to print lists of West citations to save computer time and then use West's books for study). Both courts distinguished use of the internal page citations as unfair because their availability discouraged the researcher from using or buying West's books. West Publishing Co., 799 F.2d at 1228; West Publishing Co., 616 F. Supp. at 1581.

Although probably accurate, the distinction between first page and internal page citations is less than obvious. LEXIS's use of first page citations probably reduces the use of West volumes for citations not requiring an internal cite (for example, when the reference is not to a specific portion of the opinion; see BLUE BOOK, supra note 4, at 17). Further, inclusion of internal cites in LEXIS may encourage the user to refer to that portion of the opinion in a West volume. West apparently fears, however, that eliminating the need for West's reporters for citation purposes is sufficient to affect its market. The little evidence produced by either side supports this fear. See infra note 147 (discussing West's loss of sales due to Mead's announcement of star pagination).

91. West Publishing Co., 799 F.2d at 1223.
92. Id. at 1223-26.
93. Id. at 1223-25. The court generously interpreted Callaghan as indicat-
in *Banks* to reporters who are statutorily required to publish. The court therefore found no per se rule against copyrighting case arrangement and pagination.

The Eighth Circuit next examined the copyrightability of West's case arrangement and pagination. Conceding that the system of Arabic numbers is not copyrightable, the court reasoned that West was not protecting, nor was Mead appropriating, simple numbers, but rather the underlying case arrangement. The court concluded that these underlying arrangements "easily" met the standard of original authorship and were thus copyrightable because of West's labor, talent, and judgment in compiling and arranging opinions.

The Eighth Circuit then found Mead's intended use of the page numbers an infringement of West's case arrangement in two ways. First, star pagination would appropriate West's arrangement by allowing a LEXIS user to "page through" an opinion, find the first page of the next opinion in West, and, by repeating this process, access West's entire case arrangement.

The key to the case, said the court, was "not whether numbers are copyrightable, but whether the copyright on the books as a whole is infringed by the unauthorized appropriation of these particular numbers." The court appropriately identified both the absence of copying and intellectual effort strains of originality in its discussion of the law.

94. *Id.* at 1225. The court concluded that the "ultimate rationale for the *Banks* decision was that while under *Callaghan* the official reporter could copyright any material that was the product of his intellectual labor, because the reporter's statutory duties required case arrangement and pagination, these should not be considered the product of the reporter's intellectual labor." *Id.*

95. *Id.* at 1226.

96. *Id.*

97. *Id.* at 1227. The court said that the use of the numbers was sought to give access to "a large part of what West has spent so much labor and industry in compiling," thereby reducing the need to buy West's books. *Id.* The key to the case, said the court, was "not whether numbers are copyrightable, but whether the copyright on the books as a whole is infringed by the unauthorized appropriation of these particular numbers." *Id.*

98. *Id.* at 1226-27. The court appropriately identified both the absence of copying and intellectual effort strains of originality in its discussion of the law. *Id.; see also supra* note 22 (discussing these two strains). In its analysis, the court of appeals held that West met both standards. West met the "modicum of intellectual labor" standard because of its labor, talent, and judgment in compiling cases. West also met the originality standard because it did not copy any other case arrangement. *West Publishing Co.*, 799 F.2d at 1227. The court thus upheld the district court's finding that "West's case arrangements, an important part of which is internal page citations, are original works of authorship entitled to copyright protection." *Id.*

99. *Id.* at 1227. The Eighth Circuit conceded that this usage of LEXIS was unlikely due to the cost of running a new search with each case. The user
In the alternative, star pagination would usurp West's case arrangement by giving LEXIS users the exact location of any part of a West case report. The West court therefore prevented Mead's use of West's page numbers because the pagination "reflects and expresses West's [copyrighted] arrangement, and ... [Mead's] intended use of West's page numbers infringes West's copyright in the arrangement."  

must search for a single case within a volume, page through that case and find the last page by using star pagination, conduct a new search using the next page number (the first page number of the next opinion in the West reporter), and repeat this process for every case in the reporter. Mead unsuccessfully argued that such a use would be highly unlikely due to the cost of conducting separate searches for every case in a West volume. The court rejected this argument because even uneconomical infringing work is still infringing.  

The court might have held simply that the input into LEXIS's data base of data constituting West's case arrangement amounted to infringement, regardless of the user's ability to recall the arrangement. West raised this argument in its petition to the Supreme Court to deny certiorari. See Brief In Opposition at 10, Mead Data Cent., Inc. v. West Publishing Co., 107 S. Ct. 962 (1987) (No. 86-891) (denying certiorari). The 1976 Copyright Act defined "copies" to include any material objects whereby a work may be "perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." Pub. L. No. 94-553, 90 Stat. 2541, 2542 (codified as amended at 17 U.S.C. § 101 (1982)); see 2 M. Nimmer, supra note 13, § 8.08, at 8-103. Nimmer concludes that this definition "makes clear that the input of a work into a computer results in the making of a copy" that infringes the work's copyright.  

West Publishing Co., 799 F.2d at 1223. The West court's reasoning suggests a theory of copyright by association. To find infringement, the court reasoned that the association of the copyrighted case arrangement with the page numbers bestowed protection in the otherwise unprotectable numbers. This theory of copyright by association is almost but not entirely novel. In Financial Information, Inc. v. Moody's Inv. Serv., the district court protected otherwise uncopyrightable daily lists of called bonds because appropriation of these lists would destroy the copyright in the plaintiff's year-end compilation of the daily lists. 599 F. Supp. 994, 998 (S.D.N.Y. 1983), remanded by 751 F.2d 501 (2d Cir. 1984). Thus, the uncopyrighted daily lists were protected by their association with theopyrighted year-end volume. A copyright by association
B. AN ALTERNATIVE ANALYSIS: PROTECTING A REPORTER’S CITATION CORRELATIONS RATHER THAN ITS CASE ARRANGEMENT

West’s claim presented the Eighth Circuit with a difficult analysis. West’s reporters are reference works and thus similar to compilations of facts, which do not fit easily into traditional copyright theory. Copyright protection is important lest works like West’s cease to be produced, but their lack of theory has inherent appeal because a legitimate copyright would be useless if it could be accessed by unrestricted use of associated uncopyrighted material. See id. In order to prevent bogus copyright protection by contrived associations, however, some limitations must be applied, including a requirement that the associated copyrighted material surpass triviality. On appeal of Financial Information, Inc., the Second Circuit pointed out this limitation, remanding the case for a determination of the triviality of the year-end volume. 751 F.2d at 507.

Mead also argued that West was attempting to copyright the Arabic numbering system. West Publishing Co., 799 F.2d at 1228. The Eighth Circuit held that the copyright was in the case arrangement, not the numbering system. Id. Mead further argued that West’s citations are statements of fact and therefore not copyrightable. Id. The court rejected this because Mead’s wholesale use of the factual data exceeded permissible use of a factual compilation. Id. Finally, Mead contended that the public interest in access to the law required free access to West citations. Id. at 1229. The court rejected this argument, reasoning that the value of a work increased rather than decreased the need for copyright protection to ensure its publication. Id.

The dissenting judge filed a lengthy opinion arguing primarily that the majority exceeded the proper scope of review in discussing the merits. See id. at 1230, 1232 (Oliver, J., dissenting in part). In addition, the dissent disagreed with the majority’s interpretation of Callaghan and Banks, id. at 1239, and found the record insufficient to grant West’s request for a preliminary injunction. Id. at 1233.

102. Law reporters at least partially serve a reference function by providing a means of locating judicial opinions. See supra note 14 (defining reference work).

103. Compare supra note 40 (discussing the aberrant nature of compilations of facts and distinctions courts have made in allowing or not allowing copyright) with infra note 121 (discussing West’s reporters’ similarity to a compilation of facts).

104. The assumption that the absence of copyright protection will discourage law reporter publication is subject to challenge. On the one hand, court refusal to protect West’s page numbers would allow a rival to duplicate West’s volumes except for the original headnotes and key numbers. Because the legal profession could use these less expensive imitations to provide West citations, they would indeed disrupt West’s market and possibly discourage West’s publication of reporters. On the other hand, free use of West’s page numbers would encourage publication of reporters by publishers other than West. At present, these publishers are strongly discouraged from publishing because their volumes will have little attraction as long as West’s reporters dominate citation practices. Protection of West’s numbers therefore actually discourages all publication but West’s. Viewed in this light, the West decision is colored with
intellectual creativity would ordinarily preclude a copyright. The *West* court's difficulties grew out of the troublesome search for an alternative to traditional creativity that would justify a copyright.\(^\text{105}\)

irony, because *West* established its dominance through the failure of earlier courts to provide copyright protection for other publishers. *See supra* note 5 (citing cases involving denial of copyright and the right to first publication for publishers opposing *West*).

On a larger scale, however, page number protection will encourage production of reference works in general. Courts should protect the heart of a reference work, its correlations. *See supra* notes 42-69 and accompanying text (discussing copyright for a reference work's correlations). Failure to do so is tantamount to a refusal to protect such works as indexes and bibliographies, an unacceptable prospect in light of the protection routinely granted to similar works such as directories and lists. *See supra* note 40 (discussing the copyrightability of fact compilations). Because law reporters are reference works, *see supra* note 102, their all-important citation correlations should be protected. Prospective publishers of reference works will thus be assured that their substantial compilation efforts will be adequately rewarded. *West* produced some evidence that the failure to protect its page numbers would indeed reduce its hardbound reporter market. *See infra* note 147. Even within this larger analysis, however, law reporters continue to rest uneasily because the legal profession's referencing system, the formalized institution of citation, is much less amenable to newcomers than other fields of information.

105. *See supra* notes 40, 50 (discussing originality problems of compilations of facts and reference works). Like a telephone directory, *West*'s reporters are basically collections of public domain materials arranged to be accessible to users.

106. *See supra* note 41 (discussing other courts' efforts to circumvent the originality weakness of fact compilations through alternative bases of originality). Although *West*'s claim presents two distinct levels of difficulty, the *West* court squarely confronted only one. Because *West*'s page number claim does not fit neatly into traditional copyright doctrine, *see supra* note 103 and accompanying text, logical extensions of those doctrines do not assist a court in determining the propriety of a copyright. Cases like *West*'s float in the gray area of copyright law, where equitable and policy considerations should, and usually do, sway the courts. *See supra* note 41 (discussing various policy arguments for granting copyright to works like *West*'s). The initial difficulty is therefore whether equity and policy considerations require that LEXIS be allowed to compete by using *West*'s page numbers or that *West* should have a monopoly over its citations. *See supra* note 104 (analyzing these policy considerations). If this issue is ultimately decided in *West*'s favor, the remaining difficulty is finding a conceptual basis for protecting page numbers.

The *West* court made little attempt to analyze the first difficulty, the equities of granting *West* protection. Instead, the court assumed that star pagination would affect *West*'s market, *see infra* note 112, and would therefore be unfair. Assuming the equities were in *West*'s favor, the *West* court then considered the originality dilemma, relying on the case arrangement for the necessary originality. *See supra* notes 97-98 and accompanying text (describing the appellate court arrangement-based analysis) and *infra* notes 109-20 and accompanying text (critique of that analysis). The originality problem caused the court's major difficulties.
The basis of originality for a reference work copyright depends on the identification of the copyright's subject matter. West sought and obtained protection of its page numbers because the numbers reflect West's copyrighted case arrangement. According to the West court, this arrangement is the subject matter of the copyright inquiry.

Regardless of its copyrightability, however, a law reporter's case arrangement does not provide a solid foundation for protecting West's and other publishers' efforts in compiling judicial opinions. Factually, some West volumes apparently lack the original arrangement cited by the West court as "easily" meeting the intellectual creativity standard. More importantly, the research value of West's volumes does not lie in the way the cases are arranged. To illustrate, if West simply pub-

108. Id. at 1227 ("The key to this case, then, is not whether numbers are copyrightable, but whether the copyright on the books as a whole is infringed by the unauthorized appropriation of these particular numbers."). The page numbers are protected not because they are copyrightable, but because they are closely associated with the copyrighted case arrangement. This theory of copyright by association is explored in note 101 supra.
109. Mead included as an addendum to its appellate brief a comparison of the actual case arrangement in Volume 300 of the Federal Supplement with an arrangement by date of decision. Although West's editor-in-chief testified that Federal Supplement advance sheets currently are arranged by date of decision, see Affidavit of Arnold O. Ginnow at 7-8, reproduced in Brief for Appellant, supra note 83, app. at A46-A47, the arrangement in 300 Federal Supplement does not even minimally conform to a date of decision arrangement. See Brief for Appellant, supra note 83, Addendum. In response to this challenge, West replied that this volume predated its current practice of arrangement by date. See West Publishing Co., 799 F.2d at 1247. Not only did West fail to indicate what its previous practice was, id., but the arrangement in 300 Federal Supplement defies attempts to discern any rational order. West's failure to show any original arrangement in this volume raises doubts about the extent of original arrangement in the rest of its reporter system.
110. In his hornbook on legal research, Professor Morris Cohen nowhere refers the reader to the value of West's arrangement of cases. Cohen does state that case reporters' normal chronological arrangement is of little use to a lawyer, who researches by subject matter. Cohen suggests instead the use of finding tools, such as West's digests, to locate opinions. M. COHEN & R. BERNING, supra note 1, at 3-4, 49, 62, 99-100, 375, 378, 382. Further, West itself discounts the value of its case arrangement for research in its own promotional literature. In West's Law Finder, intended as a research manual for lawyers, West does not mention the case arrangement within a volume in its description of the National Reporter System. In touting the value of the key number digests, it does, however, mention the inadequacy of its case arrangement for locating material:

Decisions are published approximately in the order in which they were decided and, therefore, they are not arranged according to legal subject matter. ... Since this is true, it is apparent that the cases on
lished cases in the order it received them, with no arrangement whatsoever, Mead would undoubtedly still attempt to appropriate West's page numbers. With no less doubt, West would still seek an injunction. The parties are predictably covetous over page numbers because of the value of the numbers to the legal community for citation,\textsuperscript{111} not because of West's unique case arrangement. Likewise, the court would also desire to protect West's market even if the arrangements were unoriginal.\textsuperscript{112}

\textsuperscript{111} Any specific point of law are necessarily intermingled among cases deciding other points of law. If only Books of Law were available to the lawyer, the task of research would be intolerable.

\textsuperscript{112} West publications are by far the most frequently cited legal volumes. Blue Book requirements illustrate West's value as a source of citations. For example, the widely-used Blue Book identifies a citation to a West volume as the only citation for all federal court of appeals and district court decisions since 1789, \textit{Blue Book}, supra note 83, at 173-74; as the only citation to the decisions of the highest courts in twenty-one states, \textit{id.} at 177-216; and as parallel citations for decisions of the other twenty-nine states, \textit{id.} In one instance—the court of claims—West's citations are required instead of those of the official reporter. \textit{id.} at 174. Federal courts likewise depend heavily on West publications. See D.C. Cir. R. 8(f) (requiring the use of the \textit{Federal Reporter} for District of Columbia Circuit decisions and the National Reporter System for state decisions); 1ST Cir. R. 11(h) (requiring use of the National Reporter System for state decisions); 3D Cir. R. 21(1)(A)(i) (requiring the use of the \textit{Federal Reporter} and \textit{Federal Supplement} for federal decisions and "the West Reporter system whenever possible" for state); 11TH Cir. R. 22(f)(10) (adopting Blue Book rules plus the National Reporter System for state decisions). In addition, a number of states have adopted West's publications as their official reports. See M. COHEN & R. BERRING, supra note 1, at 24. This widespread acceptance of citation to West volumes occurred slowly, with resistance among the state judiciary continuing into the 1930s. See W. MARVIN, supra note 2, at 65.

\textsuperscript{113} The West court expressed strong intention to protect West's market. See West Publishing Co., 799 F.2d at 1227 (access to the internal page numbers "would give users of LEXIS a large part of what West has spent so much labor
Court protection of unoriginally arranged volumes is difficult, however, if the court bases its analysis on an original arrangement. The West court's reliance on the irrelevant case arrangement is therefore questionable because the arrangement is not the appropriate subject matter of the copyright claim.

Law reporters are valuable not because of their case arrangement, but because they enable legal researchers to access by citation a comprehensive compilation of cases. To protect this citation value, the subject matter of West's claim must encompass the function of West's page numbers as locators for the material on a particular page. Like the index in Roxbury,
West's reporters are reference works, whose copyrightable subject matter is the correlations between the citations and the material on each page. It is these correlations that Mead covets and West desires to protect. An analysis of West's copyright claim should therefore focus on these correlations rather than on the case arrangement.


Mead is interested in West's page numbers as locators of judicial material, see supra note 116. West's interests are similar, see supra notes 110-14 and accompanying text (arguing West's desire to protect the page numbers of even unoriginally arranged volumes).

The district court advanced an alternative basis for West's copyright based on the "self-indexing" nature of a reporter. West Publishing Co., 616 F. Supp. at 1578. By recognizing the similarity of West's page numbers to an index (the court compared them to the index in Roxbury), the district court touched on the correlational nature of the subject matter in West's claim.

The Eighth Circuit in West could have opted for the industriousness theory used by many courts to justify copyright for directories. See supra note 41 (describing the industriousness theory). Under this theory, West's volumes need no originality for copyright because the effort expended in producing them suffices regardless of any lack of creativity.

Although the industriousness theory provides a basis for West's copyright, it inadequately answers the pivotal question concerning which parts of West's volumes are protected by copyright. Courts using the industriousness theory prevent the copier from reproducing the creator's work without expending the same effort. See, e.g., Southwestern Bell Tel. Co. v. Nationwide Indep. Directory Serv., 371 F. Supp. 900, 906 (W.D. Ark. 1974); accord Northwestern Bell Tel. Co. v. Bedco, Inc., 501 F. Supp. 299, 302 (D. Minn. 1980). For example, the court in Jeweler's Circular Publishing Co. v. Keystone Publishing Co. required the publisher of a competing list of jewelers to canvass the city as did the publisher of the original volume, rather than copy the latter's list. 281 F. 83, 92 (2d Cir.), cert. denied, 259 U.S. 581 (1922). Under this analysis, Mead could not duplicate West's reporters without similar effort in collecting and arranging opinions. Mead, however, expended great effort in compiling its data base from original sources. See Brief for Appellant, supra note 83, at 10-12. It now wishes to duplicate the page numbering of a West volume. Because placing page numbers on pages costs West minimal effort, see West Publishing Co., 799 F.2d at 1237 (Oliver, J., dissenting in part) (questioning effort involved in machine-printing numbers on pages), Mead is not robbing West of its labor in collecting and arranging opinions without similar expenditure on its own part. The industriousness theory therefore would not assist the court in identifying the subject matter of West's copyright or in preventing Mead's infringement.
C. THE COPYRIGHTABILITY OF A LAW REPORTER'S CITATION CORRELATIONS

Once the subject matter of the copyright is identified, its copyrightability must be determined. An emphasis on the citation correlations alters the issue in *West* to the originality of these correlations rather than the originality of the case arrangement. A traditional creativity test of the correlations' originality would be inappropriate because of the kinship between law reporters and fact compilations. Under a fact compilation originality standard, the correlations in *West*’s volumes and most other reference works should satisfy the *Toro* and *Roxbury* rationality test for copyrightable correlations. Rationally assigned parts numbers refer a user to specific parts, and rational index citations refer a user to stories on particular topics. Similarly, by referring users to the specific location of judicial material in a *West* reporter, *West*’s citation correlations are rational, publicly useful, and thus copyrightable. This analysis is not without difficulties;

121. Like other compilations of facts, *West*’s reporters aggregate public domain material in a usable form. Such works are not subject to the normal creativity requirement which, if applied, could defeat their copyrights. *See supra* notes 40-41 (discussing the minimal originality scrutiny of fact compilations).

122. *See supra* notes 53-62 and accompanying text (describing the rational correlation test gleaned from *Toro* and *Roxbury*).

123. *See supra* notes 58-59 and accompanying text (discussing *Toro*’s rational correlation requirements).

124. *See supra* note 60 (discussing *Roxbury*’s rational correlations).

125. The *West* court described the rational ability of a *West* citation to locate material in a reporter. *See West Publishing Co.*, 799 F.2d at 1222 (“Volumes and pages [in *West*’s Reporter System] are numbered sequentially to facilitate precise reference to *West* reports; citing the proper volume number, series name, and page number communicates the exact location of a *West* report, or a portion thereof, within the National Reporter System.”).

126. One difficulty is that *West*’s correlations would not succeed under the *Toro* court’s analysis. As described *supra* note 59, the Eighth Circuit in *Toro* required that an individual part number relate some information about the part that it referenced. Like the infirm parts numbers in *Toro*, an individual *West* page number by itself communicates nothing about the location of specific material. The rationality of page numbers derives instead from their order, like the alphabetical order of names in a directory, not from any meaning in an individual correlation, like the indexed items in *Roxbury*. Although the *Toro* analysis will not protect *West*, a broadened analysis based on the rational order of the correlations will. *See supra* note 62 (criticizing *Toro*’s standard of rationality).

A further difficulty arises from an attempt to distinguish *West* and *Toro* on their facts. The defendant in *Toro* used *Toro*’s parts numbers to identify its own replacement parts for *Toro* equipment. *Toro Co. v. R & R Prods. Co.*, 787 F.2d 1208, 1210-11 (8th Cir. 1986). Thus, like Mead, *Toro*’s competitor used *Toro*’s parts citation system to encroach on *Toro*’s market. The *Toro* court’s
nevertheless, it does provide a court with a copyrighted subject matter that protects a law reporter publisher’s interests and corresponds precisely with an appropriation like Mead’s. A reporter’s rational correlations should therefore suffice as the alternative basis necessary for a reference work’s originality.

Once a court establishes the correlations’ originality, it should find no idea/expression obstacle to copyright because a reporter’s correlations are copyrightable expressions of an idea. As the Toro court concluded, the idea of a numbering system is not copyrightable. Nevertheless, if Toro’s specific correlations between parts and numbers were its expressions of the idea of referencing parts, West’s specific correlations be-

In addition, a simple rational order of numbers is far short of the intellectual creativity traditionally required for originality. See Cooling Sys. & Flexibles, Inc. v. Stuart Radiator, Inc., 777 F.2d 485, 492 (9th Cir. 1985) (“Obviously an alphabetical list is not a protectible form of arranging proper names.”); supra note 22 (describing the traditional need for intellectual effort to meet the originality requirement). Nevertheless, like fact compilations, West’s volumes need only a technical basis for originality to support their copyright. See supra note 41 (describing courts’ efforts to find a technical basis for originality in fact compilations).

127. See supra notes 110-11 and accompanying text (describing the importance of West’s citation correlations to West, Mead, and to the legal community); supra note 116 (identifying Mead’s appropriation as the location of material in West opinions).

128. Although neither the court of appeals nor the district court specifically discussed the idea/expression doctrine, both courts rejected Mead’s contention that West was attempting to copyright a numbering system. See West Publishing Co. v. Mead Data Cent., Inc., 616 F. Supp. 1571, 1579 (D. Minn. 1985), aff’d, 799 F.2d 1219, 1228 (8th Cir. 1986), cert. denied, 107 S. Ct. 962 (1987).

129. See Toro Co., 787 F.2d at 1212; supra text accompanying notes 64-67 (discussing the Toro idea/expression analysis).

130. Toro Co., 787 F.2d at 1212.
tween page numbers and page content are similarly its copyrightable expressions of the idea of referencing material on a page. As a result, if the correlations are original, West may protect citations to its volumes without affecting any other publisher’s use of a citation or page numbering system.

Thus, although the West court concluded that West’s page numbers are an important part of its copyrighted case arrangement, the better conclusion is that a reporter’s page numbers are part of its copyrighted original correlations between citations and judicial material on a specific page.

Because the copyright claim survives both idea/expression and originality challenges, a law reporter publisher may potentially prevent star pagination to its volumes. The publisher’s success in doing so depends on whether the competitor’s use is similar enough to the copyrighted material to evidence copying and therefore constitute an impermissible infringement. In West, the Eighth Circuit struggled with the similarity of Mead’s use because Mead did not actually reproduce the case arrangement on which the court built its analysis. The court attempted to circumvent the infringement problem with

131. The court’s recognition of a correlation copyright in *Roxbury* supports this conclusion because the copyrightable correlations in that case contained citations consisting largely of volume and page numbers. *See* New York Times Co. v. Roxbury Data Interface, Inc., 434 F. Supp. 217, 220 (D.N.J. 1977) (copyrightable portion of the index was the correlation of data in the *New York Times* with citations to the pages and volumes of that publication).

132. West may not, of course, copyright either the idea of citations or the elements of a citation necessary for others to use the idea of citation (page and volume numbers, for example). *See supra* notes 29-32 and accompanying text (idea/expression limitation on copyright subject matter).


134. *See supra* notes 33-34 and accompanying text (discussing the infringement doctrine).

135. LEXIS will not display or print cases in the order of West’s arrangement. Mead used this fact to argue that LEXIS does not reproduce West’s case arrangement. *West Publishing Co.*, 616 F. Supp. at 1579-80. The district court rejected Mead’s contention because data bases are flexible collections of information retrievable in various forms. Thus “MDC need not physically arrange its opinions within its computer bank in order to reproduce West’s protected arrangements.” *Id.* at 1580. The typical arrangement accessible to the user displays the cases containing the user’s search request. *See* Brief for Appellant, *supra* note 83, at 14-15 (describing LEXIS display format). This arrangement is totally dissimilar to West’s, and star pagination would make no difference. A LEXIS user, however, may potentially recreate West’s arrangement with, *see supra* note 99, or without, *see infra* note 138, star pagination, but only at great effort and expense. Thus, Mead does not promote or offer a duplication of West’s case arrangement, even with star pagination, short of bizarre and herculean efforts by the user to reconstruct that arrangement.
alternative explanations. The court first reasoned that because star pagination enables LEXIS users to page through a West volume, that use infringes on West's arrangement.\textsuperscript{136} This analysis is weak because it is highly improbable that LEXIS users would page through multiple opinions to reproduce West's arrangement.\textsuperscript{137} Further, West's concession of the first page citation gives LEXIS users access to West's entire case arrangement even without star pagination.\textsuperscript{138} Alternatively, the court found infringement because Mead's use would reveal the precise location of portions of West's case reports.\textsuperscript{139} This alternative is no more convincing than the first. Although an analysis based on location revelation more accurately reflects the nature of Mead's appropriation,\textsuperscript{140} it has nothing to do with West's original case arrangement.\textsuperscript{141} Thus, in its second infringement finding, the court identified the actual nature of the infringement, but did so at the expense of its copyright theory.

The problematic nature of Mead's appropriation disappears, however, if the copyright is based on West's correlations. Mead developed star pagination to reveal the correlation between West's page numbers and the material on that particular page.\textsuperscript{142} If West's correlations are copyrighted, Mead's use is an infringement because LEXIS's star pagination is an exact duplication of West's copyrighted work. Thus, although an arrange-

\begin{footnotes}
\footnotetext[136]{West Publishing Co., 799 F.2d at 1227.}
\footnotetext[137]{See supra note 99.}
\footnotetext[138]{See supra note 90 (discussing West's fair use concession of first page citations). LEXIS's Autocite feature creates this opportunity. Autocite enables the user to enter a case citation to view the subsequent and prior history of the case. If the user enters an internal page number, such as that provided by Shephard's Citations, rather than the first page of the opinion, Autocite refers the user to the case containing that internal page. Thus, by entering the page number preceding the first page of the last opinion in a West volume, the user could work backwards and discover the exact order of cases within the volume.}
\footnotetext[139]{West Publishing Co., 799 F.2d at 1227-28.}
\footnotetext[140]{Mead's revelation of the location of West materials is the actual purpose of star pagination, not recreation of West's case arrangement. See supra note 116.}
\footnotetext[141]{See supra notes 107-20 and accompanying text (arguing that the correlation of citation and page content, not the case arrangement, is the actual subject matter of West's copyright and Mead's appropriation).}
\footnotetext[142]{See West Publishing Co., 799 F.2d at 1228; supra note 116.}
\end{footnotes}
ment-based approach forced the Eighth Circuit into a strained infringement analysis, a correlation theory accurately measures the extent of star pagination's infringement of a reporter's copyrighted correlations.\footnote{143}

Although fair use may justify an infringement,\footnote{144} star pagination to a law reporter falls outside even the generous defense available to the user of a reference work.\footnote{145} Mead's star pagination is a wholesale appropriation of West's correlations and is intended to improve LEXIS as a tool for researching and citing opinions. Unless LEXIS's market is narrowly defined,\footnote{146}

\footnote{143. Because an arrangement-based approach produced infringement problems, the West court invoked copyright by association. See supra note 101. Regardless of its value in other settings, the West court should have avoided the copyright by association theory. Like the court's original arrangement analysis, in this setting, copyright by association suffers by relying on the irrelevant case arrangement, i.e., that West's page numbers are protected because they are closely associated with the copyrighted case arrangement. West Publishing Co., 799 F.2d at 1228. If the court had adopted a correlation-based analysis, the untested copyright by association theory would not have been necessary to find infringement.}

\footnote{144. See supra notes 35-38 and accompanying text (discussing the fair use doctrine). Mead's fair use argument did not succeed before the district court because Mead's use was a commercial one of large magnitude that would adversely affect West's hardbound reporter market. West Publishing Co. v. Mead Data Cent., Inc., 616 F. Supp. 1571, 1580-81 (D. Minn. 1985), aff'd, 799 F.2d 1219 (8th Cir. 1986), cert. denied, 107 S. Ct. 962 (1987). Although Mead did not raise its fair use argument on appeal, the appellate court stated its agreement with the district court's analysis of this point. See West Publishing Co., 799 F.2d at 1228 n.3.}

\footnote{145. See supra notes 35-38, 68 and accompanying text (discussing fair use and reference works).}

\footnote{146. LEXIS's market could be narrowly defined as that of computer-assisted legal research products, rather than all legal research products. This definition would place LEXIS in competition with WESTLAW, not West's hardbound reporters. This definition, however, emphasizes media over function and thus suffers under Nimmer's criticism of media-oriented approaches. See 3 M. Nimmer, supra note 13, § 13.05[B] (arguing that the medium is irrelevant and the function of the two works determinative in a fair use market effect consideration). See also supra note 38 (citing cases that discussed the role of function in a market effect consideration for the fair use defense). Under Nimmer's analysis, the issue is whether LEXIS's star pagination is offered to the public to perform the same function as West's reporters. If the function of both products is legal research, LEXIS cannot usurp West's right to reproduce its page numbers in a different medium, that of computer-assisted legal research. A more promising narrow definition of LEXIS's market therefore distinguishes the function, not the media, of LEXIS and hardbound reporters. LEXIS users may use that product primarily for rapid location of relevant opinions, a likely conclusion considering the cost of computer time. In contrast, hardbound reporters may be more useful for detailed study of text rather than subject matter research. See J. Kinsock, supra note 2, at 55 (argu-}
Mead's use performs at least some part of the function of West's volumes in a competitive, potentially market-supplanting manner. Mead's argument, therefore, encounters difficulty with the market effect limitation on a fair use defense. Thus, although citation to a law reporter should generally be a fair use, star pagination in a competing work loses that status due to its wholesale, market-affecting nature.

In sum, although the West court struggled with its arrangement-based analysis, a law reporter publisher should be able to prevent wholesale appropriation of its citation correlations through star pagination. Because of their kinship with copyrightable compilations of facts, reporters should find sufficient room within the law for copyright protection. With strict

147. Some detrimental effect of star pagination on West's hardbound reporter market is likely, but only conjectural at this point. The Eighth Circuit concluded that Mead's use of star pagination would "pro tanto reduce anyone's need to buy West's books." West Publishing Co., 799 F.2d at 1227. This is not a foregone conclusion; LEXIS users may still prefer to purchase the hardbound reporters for copying, quicker access, and use of the West headnotes and key number systems. See also supra note 13 (effect of anticomputer bias on continuation of the reporter market). Nevertheless, some diminution in West's hardbound reporter market is possible because researchers could obtain both opinions and full West citations from LEXIS. West produced some support for this prediction in the affidavit of the Co-Acting Director of the University of Minnesota Law Library, who stated that the anticipated introduction of star pagination was used as justification for cancellation of the Minnesota Law Review's subscriptions to the Federal Reporter, Second Series and the Federal Supplement. See Brief for Appellant, supra note 83, app. at A192 (cited by the district court in West Publishing Co., 616 F. Supp. at 1592). West also produced affidavits of other library personnel conjecturing a reduction in demand for West volumes. See Brief for Appellant, supra note 83, app. at A164-A165, A168-A170, A173-A186, A197-A198. In light of the West decision, the Minnesota Law Review has asserted that the Library's cancellation was without merit and that the Review's subscriptions should be reinstated without further delay. See Petition for Reinstatement of Our Reporter Subscriptions, September 10, 1986 (located somewhere in a filing cabinet in the Minnesota Law Review office).

148. See supra notes 35-38.
limitations under fair use, courts should prevent wholesale usurpation of the valuable citation correlations of law reporters.

The West court's analysis theoretically could support copyright protection much less justified than the protection afforded West. Although West conceded that use of its first page citations was fair, the court's arrangement-based analysis could sustain copyright in any citation to a copyrighted volume, including first page citations. Application of this protection is probably limited to the legal field because of the law's unique dependence on citation. The legal community would nevertheless tremble in contemplating the potential damage resulting from full copyright protection for citations. Mitigating the damage to some degree is the market benefit, rather than harm, that most volumes receive from being cited, because publishers who benefit from citation are not likely to attempt to enjoin it.

These practical limitations are too unpredictable, however, to prevent excessive harm to the public from the West court's analysis. In keeping with the appropriate protection for a work intended to be referenced, future courts should narrow the potential damage by preventing only substantial appropriations for competitive purposes. West, for example, should have no power to prevent even wholesale use of citations to a West vol-

149. See supra note 69 and accompanying text (fair use limitations on a reference work) and infra notes 153-54 (application of these limitations to West).

150. Mead may still claim the right to star page to any volumes whose copyright has expired. Under the federal copyright statute, West volumes published before January 1, 1978, may retain their copyright for 28 years plus a renewal period of 47 years, a total of 75 years. 17 U.S.C. § 304(a)-(b) (1982). Volumes copyrighted before 1913 therefore may be unprotected. Considering the minimal use of these older opinions, however, this possibility likely does not provide Mead much solace.

151. If West had not conceded the use of first page citations, it could have argued that the entire citation protected its copyrighted arrangement. Under the court's reasoning, Mead's use of any part of the citation would infringe on the respective copyrighted portion of West's arrangement. Further, because Mead's use was a wholesale one, the court made no attempt to determine how many citations a competitor could use without infringing. Without other limitations, then, the West rationale theoretically protects any use of a citation that appropriated any part of a copyrightable arrangement.

152. West, for example, never sued to prevent Mead's use of citations to the first page of its opinions, apparently because such citations referred users to West volumes, thus benefiting West's market. See West Publishing Co., 616 F. Supp. at 1579 (West's fair use concession of first page citations is "not necessarily altruism on West's part. That citation calls a researcher to West's books—which they are in business to sell as well as create.").
ume by a noncompeting work,\textsuperscript{153} or a less than substantial use of citations to a West volume in a competing work,\textsuperscript{154} if neither use diminishes West's reporter market. In light of the legal community's need for generous citation privileges, any uses that do not destroy a publisher's incentive to publish are justified and should be court-approved.\textsuperscript{155}

In addition to its copyright law ramifications, the \textit{West} decision may affect the development of computerized legal research. In the short run, the decision in West's favor may hinder development because Mead and other potential computerized legal research companies will not be able to offer a significant improvement in their systems.\textsuperscript{156} Not only will

\textsuperscript{153} For example, \textit{Shephard's Citations} include nearly as many West citations as LEXIS would with star pagination. Because Shephard's use is symbiotic rather than competing, however, West should not be able to prevent Shephard's near wholesale use of West citations. \textit{See supra} notes 68-69 and accompanying text (arguing that fair use of a reference work should be broadly available as long as the use is not wholesale and competing).

\textsuperscript{154} For example, a reporting service should be able to star page to West if the service is specialized enough so that its use of West citations will not affect the market for any West volume. For example, the Bureau of National Affairs should be able to star page to West opinions in its \textit{United States Patent Quarterly} because the specialized nature of this publication will not threaten sales of West's more general reporters. Neither should West be able to control citations to its reporters to prevent competition with a West publication that is not a reporter. For example, \textit{American Jurisprudence}, a legal encyclopedia published by the Lawyers Co-operative Publishing Company and Bancroft-Whitney Company, competes directly with \textit{Corpus Juris Secundum}, a similar work published by West. The former uses many, but not wholesale, West citations. Although \textit{American Jurisprudence} may threaten \textit{Corpus Juris Secundum}'s market, West should not be able to prevent the former's use of citations to West's reporters because the use is less than wholesale and does not threaten the protected work, the reporter. \textit{American Jurisprudence} could not, of course, copy \textit{Corpus Juris Secundum} without violating that publication's copyright.

\textsuperscript{155} The same court that initially decided \textit{West} may have opportunity to test the limits of that decision. West is being sued by Bancroft-Whitney Co. Bancroft-Whitney Co. v. West Publishing Co., No. 4-86-473 (N.D. Tex. filed Dec. 16, 1985, transferred to D. Minn. June 10, 1986). The suit involves Bancroft's use of numbers applied by West in its compilation of Texas statutes to certain statutes that the Texas legislature did not number. West is attempting to prevent Bancroft from using the West numbers in a competitive statutory compilation. \textit{See Lawyers Co-op. Brief Amicus Curiae, supra} note 5, at 11-12. Copyright protection for such an insubstantial addition to an existing numbering scheme seems unlikely, although the court may require Bancroft to simply renumber those statutes in its own form rather than borrow West's.

\textsuperscript{156} The absence of internal citations weakens the incentive to purchase computer services because subscribers must still purchase hardbound reporters. This lack of investment, in return, weakens the computer industry's ability to improve its services. West, however, is in a unique position. As the holder of the copyright to its page numbers, West can add star pagination to
these systems be less valuable, but the legal community cannot be fully weaned from using the less efficient hardbound reporters as long as the computer industry lacks access to reporter page numbers that are necessary for citation. In the long run, however, a decision favoring West may prove beneficial by compelling computer research companies to develop a workable system of citation to computerized opinions. Growing along with computerized research, the use of these citations should eventually compete with and possibly displace the use of citation to hardbound reporters. LEXIS's star pagination to other reporters, on the other hand, would prolong the computer industry's dependence on hardbound reporter citation

WESTLAW at any time. The West decision will not therefore hinder the development of WESTLAW. Nevertheless, the competitive edge the decision gives West may hinder development because it would destroy the benefits of the present keen competition. See supra note 2 (discussing the benefits of competition between LEXIS and WESTLAW) and supra note 3 (discussing the competitive advantage West would gain for WESTLAW under the West decision).

If West refuses to add star pagination to WESTLAW, Mead might at some point claim that West has lost its copyright through misuse in refusing to offer its protected work for the public's benefit. This claim has surface appeal, but would face serious obstacles. The holder of a copyright has the right of reproduction and may exercise this right by refusing to reproduce the work. See Fox Film Corp. v. Doyal, 286 U.S. 123, 127 (1932) (“The owner of the copyright, if he pleases, may refrain from vending or licensing and content himself with simply exercising the right to exclude others from using his property.”); 17 U.S.C. §106 (1982) (granting exclusive rights of reproduction, publication, and distribution to the copyright owner); see also 3 M. NIMMER, supra note 13, §13.05[A], at 13-76 to -77 (fair use is severely limited when applied to unpublished works because the owner has the choice of whether to publish). Refusal to make a protected work available, therefore, is not a misuse in itself. Copyright misuse is most likely if a copyright owner ties the availability of the copyrighted item to a required purchase of an uncopyrighted one. See Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488, 491-94 (1942) (holder of a patent for a salt tablet canning machine misused the patent by requiring buyers of the machine to buy the holder's unpatented tablets); 3 M. NIMMER, supra note 13, §13.09[A] (misuse of a copyright usually involves copyright owners in illegal combinations or license tie-ins). Because West does not tie the use of its citations to the purchase of any of its products or services, a misuse argument is not likely to succeed.

157. The Blue Book currently treats citation to computerized opinions as relatively unimportant, limiting use to unpublished opinions only. See BLUE BOOK, supra note 4, at 51. The citation form is also awkward (requiring available date, name of the computer system, name of the library, and name of the file), and, on LEXIS at least, does not contain any method of locating material within an opinion. LEXIS has no internal page numbers on its opinions. West's version, WESTLAW, numbers computer pages, but these numbers do not conform to West's hardbound reporter page numbers. See WEST PUBLISHING CO., WESTLAW FOR LAW STUDENTS 48-49 (1983).
forms rather than encourage innovative development of alternatives.158

CONCLUSION

Regardless of the effect on the computer research industry, the West court's prevention of LEXIS's star pagination is justified. Copyright protection for West's correlations between its citations and the judicial material they locate is necessary to ensure that publishers like West have sufficient incentive to produce reference works. Moreover, with appropriate limitations on publishers' rights, copyright protection for the correlations will not restrict the legal community's current use of citations because only wholesale, competing uses will be prohibited. Future consideration of citation copyright, however, should involve a more useful analysis than one based on case arrangement.159 Regardless, West emerges a winner, as it did in so many earlier battles, from the first installment of what threatens to become the space age version of the legal publishers' wars. 1

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158. The development of a workable computer citation system would, however, at least temporarily create the undesirable need for another parallel citation. Because West volumes would continue to be the primary source of citations for many years, a citation to LEXIS or WESTLAW would most likely require augmentation by a West citation and by any other hardbound volumes currently required by the Blue Book or other citation systems.

159. The district court might, for instance, pursue its alternative basis for protecting West's page numbers—the value of the page numbers as an index and locator of case material. See supra note 120 (discussing the district court's alternative analysis).