

I. COPYRIGHT PROTECTION FOR DATABASES IN THE UNITED STATES

A. Before Feist

In the terminology of copyright law, a database is a “compilation”: “a work formed by the collection and assembling of preexisting materials or of data”¹ Compilations constitute one of the oldest forms of authorship protected under U.S. law, dating back to the eighteenth century.² Compilations were protected as “books” under the first federal copyright statute.³

Over the course of the nineteenth century two rationales developed for protecting compilations under copyright. One rationale, which has come to be known as the “sweat of the brow” doctrine, focused on the effort and investment of the compiler. The other focused on the compiler’s judgment and creativity in the selection and arrangement of the materials comprising the compilation.

The earliest compilation cases that discussed the basis for copyright protection identified the compiler’s effort — “his own expense, or skill, or labor, or money”⁴ — as the critical contribution justifying protection.⁵ These cases, involving works ranging from law reports and

¹ 17 U.S.C. § 101.

² See, e.g., *Kilty v. Green*, 4 H. & McH. 345 (Gen. Ct. Md. 1799) (denying relief in case involving compilation of statutes).

³ Copyright Act of May 31, 1790, ch. 15, 1 Stat. 124 (protecting books, maps and charts).

⁴ *Emerson v. Davies*, 8 F. Cas. 615, 619 (C.C.D. Mass. 1845).

⁵ See, e.g., *Dun v. Lumbermen’s Credit Assoc.*, 144 F. 83 (7th Cir. 1906), *aff’d*, 209 U.S. 20 (1908); *West Pub. Co. v. Lawyers’ Co-operative Pub. Co.*, 79 F. 756 (2d Cir. 1897); *West Pub. Co. v. Edward Thompson Co.*, 169 F. 833 (C.C.E.D.N.Y. 1909), *modified*, 176 F. 833 (2d Cir. 1910); *Egbert v. Greenberg*, 100 F. 447 (C.C.N.D. Cal. 1900); *Ladd v. Oxnard*, 75 F. 703 (C.C.D. Mass. 1896); *American Trotting Register Assoc. v. Gocher*, 70 F. 237 (C.C.N.D. Ohio 1895); *Hanson v. Jaccard Jewelry Co.*, 32 F. 202 (C.C.E.D. Mo. 1887); *Chapman v. Ferry*, 18 F. 539 (C.C.D. Oreg. 1883); *Banks v. McDivitt*, 2 F. Cas. 759, 13 Blatchf. 163 (C.C.S.D.N.Y. 1875); *Webb v. Powers*, 29 F. Cas. 511 (C.C.D. Mass. 1847); *Emerson v. Davies*, 8 F. Cas. 615 (C.C.D. Mass. 1845); *Gray v. Russell*, 10 F. Cas. 1035 (C.C.D. Mass. 1839).

legal encyclopedias to compilations of war records, emphasized both the compilers' effort and the copiers' "unfair use of the copyrighted work, in order to save themselves the time and labor of original investigation."⁶ Contemporary treatises echoed this approach.⁷

During the late nineteenth century courts began to articulate a basis for copyright protection generally that differed from the labor/investment approach taken in cases involving compilations. In a series of decisions from 1879 to 1903, the Supreme Court held that the "writings" that could be protected under the copyright clause of the Constitution included "only such as are original,"⁸ and indicated that creativity is a component of originality.⁹ Under this approach, copyright was described as protecting writings that are "the fruits of intellectual labor,"¹⁰ "productions of intellect or genius"¹¹ or "original intellectual conceptions of the author."¹²

The evolving doctrine of originality was applied by some courts in compilation cases, particularly cases involving compilations of textual materials such as law books. These cases identified the author's critical contribution justifying protection as his judgment in selecting and

⁶ *West Pub. Co.*, 79 F. at 772.

⁷ See, e.g., EATON S. DRONE, A TREATISE ON THE LAW OF PROPERTY IN INTELLECTUAL PRODUCTIONS IN GREAT BRITAIN AND THE UNITED STATES 386 (1879); GEORGE T. CURTIS, TREATISE ON THE LAW OF COPYRIGHT 174 (1847).

⁸ *In re The Trademark Cases*, 100 U.S. 82, 94 (1879).

⁹ *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239 (1903); *Higgins v. Keuffel*, 140 U.S. 428 (1891); *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53 (1884); *In re The Trademark Cases*, 100 U.S. at 94. See also *National Tel. News Co. v. Western Union Tel. Co.*, 119 F. 294 (7th Cir. 1902); *Boucicault v. Fox*, 3 F. Cas. 977, 5 Blatchf. 87 (C.C.S.D.N.Y. 1862); *Reed v. Carusi*, 20 F. Cas. 431 (C.C.D. Md. 1845).

¹⁰ *In re The Trademark Cases*, 100 U.S. at 94. See also *Higgins*, 140 U.S. at 431.

¹¹ *American Tobacco Co. v. Werckmeister*, 207 U.S. 284, 291 (1907).

¹² *Burrow-Giles*, 111 U.S. at 59-60. See also WILLIAM W. ELLSWORTH, A COPY-RIGHT MANUAL 10 (1862) (stating "mere mechanical labor will not suffice; intellectual labor or invention is indispensable").

arranging materials.¹³ This approach coexisted with, rather than supplanted, sweat of the brow cases. Sweat of the brow was applied to cases involving purely factual compilations, such as catalogs and directories. Sometimes the two approaches appeared to be melded together in a single case, with the court focusing on the “labor” and “skill” contributed by the author.¹⁴ With very few exceptions, one or the other approach was drawn upon by the court to support the conclusion that a particular compilation was protectible, rather than to deny protection.

On the question of the *scope* of protection afforded to compilations, there was somewhat greater uniformity in the case law. In compilation cases, regardless of the theoretical framework adopted to justify copyright protection, once the plaintiff’s work was determined to be copyrightable, courts generally held a defendant to have infringed whenever material was copied from the plaintiff’s work. Typically there was no inquiry as to whether the particular material copied was protected by the plaintiff’s copyright. To avoid infringement, a second-comer was required to go to the original sources and compile the material independently, without reference to the earlier work.¹⁵ A common thread running through many of these decisions was the court’s desire to prevent the copier from competing unfairly with the compiler by appropriating the fruits of the compiler’s efforts or creativity. In this sense, courts treated copyright protection for compilations much like a branch of unfair competition law.

The Copyright Act of 1976 included a definition of “compilation” which, for the first time, drew an express statutory connection between compilations and “original works of authorship”:

¹³ See, e.g., *Edward Thompson Co. v. American Lawbook Co.*, 122 F. 922, 924 (2d Cir. 1903) (focusing on “skill and taste of the [plaintiff] in selecting or arranging” materials); *Lawrence v. Dana*, 15 F. Cas. 26, 28, 4 Cliff. 1 (C.C.D. Mass. 1869) (“copyright may justly be claimed by an author of a book who has taken existing materials from sources common to all writers, and arranged and combined them in a new form, and given them an application unknown before, for the reason that, in so doing, he has exercised skill and discretion in making the selections, arrangement, and combination . . .”).

¹⁴ See, e.g., *Hanson v. Jaccard Jewelry Co.*, 32 F. 202, 203 (C.C.E.D. Mo. 1887).

¹⁵ See, e.g., *Williams v. Smythe*, 110 F. 961 (C.C.M.D. Pa. 1901); *List Publishing Co. v. Keller*, 30 F. 772 (C.C.S.D.N.Y. 1887); *Banks*, 2 F. Cas. 759.

A “compilation” is a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship. The term “compilation” includes collective works.¹⁶

The definition compels a court to examine the nature of a compilation’s “selection, coordination, or arrangement” in order to determine whether the compilation is “an original work of authorship” protectible under section 102(a). In other words, the same originality requirement applies to compilations as to all other works.

A separate section clarified the scope of protection for compilations, specifying that

The copyright in a compilation or derivative work extends only to the material contributed by the author of such work, as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material. The copyright in such work is independent of, and does not affect or enlarge the scope, duration, ownership, or subsistence of, any copyright protection in the preexisting material.¹⁷

The 1976 Act also codified the idea/expression dichotomy that had been developed by the courts.¹⁸ Section 102(b) provides: “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.” This language has been interpreted to exclude protection for facts as well.¹⁹

¹⁶ 17 U.S.C. § 101. See also *id.*, definition of “collective work.”

¹⁷ 17 U.S.C. § 103(b).

¹⁸ See *Baker v. Selden*, 101 U.S. 99 (1879).

¹⁹ See *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539 (1985); *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).

Cases under the 1976 Act were divided about the continuing viability of the sweat of the brow doctrine. Some circuits continued to apply sweat of the brow.²⁰ Other circuits rejected sweat of the brow, requiring instead that compilations contain sufficient creativity in their “selection, coordination or arrangement” to render them “original works of authorship” entitled to copyright protection.²¹ On both sides of this doctrinal divide, however, there was a consistent line of cases upholding the copyrightability of directories.²² The stage was thus set for Supreme Court consideration of the issue when it granted certiorari in a Tenth Circuit case routinely applying the sweat of the brow doctrine to protect a white pages telephone directory against wholesale copying.²³

B. The Feist Decision

The Supreme Court sounded the death knell for the sweat of the brow doctrine in *Feist Publications v. Rural Telephone Service Co.*²⁴ In finding a white pages telephone directory to be uncopyrightable, the Court held that the sole basis for protection under U.S. copyright law is creative originality.

The plaintiff, Rural Telephone Service Co. (Rural), was a local telephone company that produced a white-pages telephone directory covering its service area. Feist Publications (Feist),

²⁰ See, e.g., *Illinois Bell Tel. Co. v. Haines & Co.*, 683 F. Supp. 1204 (N.D. Ill. 1988), *aff'd*, 905 F.2d 1081 (7th Cir. 1990), *vacated and remanded*, 499 U.S. 944 (1991); *Rural Tel. Serv. Co. v. Feist Publications, Inc.*, 916 F.2d 718 (10th Cir. 1990).

²¹ See, e.g., *Financial Info., Inc. v. Moody's Investors Serv., Inc.*, 808 F.2d 204 (2d Cir. 1986), *cert. denied*, 484 U.S. 820 (1987); *Eckes v. Card Prices Update*, 736 F.2d 859 (2d Cir. 1984); *Worth v. Selchow & Righter Co.*, 827 F.2d 569, 572-73 (9th Cir. 1987).

²² See, e.g., *Hutchinson Tel. Co. v. Frontier Directory Co. of Minnesota*, 770 F.2d 128 (8th Cir. 1985); *Southern Bell Tel. and Tel. Co. v. Associated Tel. Directory Publishers*, 756 F.2d 801 (11th Cir. 1985).

²³ *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 916 F.2d 718 (10th Cir. 1990), *cert. granted*, 498 U.S. 808 (1990).

²⁴ 499 U.S. 340 (1991).

the defendant, published a directory covering multiple service areas. After Feist sought, and was refused, a license to the listings in Rural's directory, it copied the listings without authorization. The district court found Feist liable for infringement, and the Tenth Circuit affirmed in an unpublished memorandum decision. The Supreme Court granted certiorari, presumably to resolve the split in the circuits.²⁵

The Court reviewed the history of compilation copyright and the development of the sweat of the brow doctrine. It repudiated the doctrine in unequivocal terms:

Originality, the Court held, has two distinct components: "independent creation plus a modicum of creativity."²⁶ The Court emphasized that the creativity component is extremely modest. "To be sure, the requisite level of creativity is extremely low; even a slight amount will suffice. The vast majority of works make the grade quite easily, as they possess some creative spark, 'no matter how crude, humble or obvious' it might be."²⁷

The Court reviewed the definition of "compilation" in the Copyright Act of 1976 and discerned an intent to overrule the sweat of the brow doctrine by legislation. By defining a compilation as "a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship,"²⁸ the Court explained, Congress specifically required originality in order to protect compilations, and described the elements of authorship that are protected in a compilation: the selection, coordination and arrangement of the underlying material.²⁹

²⁵ 498 U.S. 808 (1990).

²⁶ *Id.* at 346.

²⁷ *Id.* at 345 (citation omitted).

²⁸ 17 U.S.C. § 101.

²⁹ *Feist*, 499 U.S. at 356-58.

The Court did not limit its holding to statutory interpretation, however. It held that “[o]riginality is a constitutional requirement.”³⁰ Citing nineteenth-century case law, the Court derived this requirement from the Constitutional terms “Writings” and “Authors” in the grant of authority to Congress to enact copyright laws.³¹

On the facts before it, the Court held that Rural’s white pages telephone directory was uncopyrightable.

The selection, coordination, and arrangement of Rural’s white pages do not satisfy the minimum constitutional standards for copyright protection. . . . Rural’s white pages are entirely typical. . . . In preparing its white pages, Rural simply takes the data provided by its subscribers and lists it alphabetically by surname. The end product is a garden-variety white pages directory, devoid of even the slightest trace of creativity.³²

Rural’s selection of listings was “obvious,” and its arrangement was “not only unoriginal, it [was] practically inevitable.”³³ The Court acknowledged that the telephone white pages were an extreme case, falling in “a narrow category of works in which the creative spark is utterly lacking or so trivial as to be virtually nonexistent.”³⁴ By contrast, it stated, “the vast majority of compilations will pass” the originality test.³⁵

Although the holding of *Feist* relates to copyrightability, the Court acknowledged the impact that its reasoning would have on the *scope* of copyright protection for compilations.

³⁰ *Id.* at 346.

³¹ *Id.* (quoting U.S. Const., art. I, § 8, cl. 8). The Court hinted, however, that other forms of protection may not be subject to the same constitutional restriction. See *id.* at 354 (“Protection for the fruits of such research . . . may in certain circumstances be available under a theory of unfair competition”) (quoting DAVID NIMMER & MELVILLE B. NIMMER, NIMMER ON COPYRIGHT § 3.04 (1990)).

³² *Id.* at 362.

³³ *Id.* at 362, 363.

³⁴ *Id.* at 359.

³⁵ *Id.*

“[C]opyright in a factual compilation is thin. Notwithstanding a valid copyright, a subsequent compiler remains free to use the facts contained in another’s publication to aid in preparing a competing work, so long as the competing work does not feature the same selection and arrangement.”³⁶ This represented a complete reversal of the earlier judicial approach in several circuits that held any substantial taking from a copyrightable compilation to be an infringement, and required second-comers independently to collect material for a competing compilation.

C. Subsequent Judicial Interpretation of *Feist*

Feist’s teachings have proved important for lower courts both in determining copyrightability and in assessing scope of protection.

1. *Copyrightability*

Subsequent cases have confirmed that the category of works lacking the requisite level of creativity is small. A series of three Second Circuit decisions rendered shortly after *Feist* is illustrative.

In *Key Publications, Inc. v. Chinatown Today Publishing Enterprises Inc.*,³⁷ the Second Circuit sustained the copyrightability of the yellow pages of a telephone directory for New York’s Chinese-American community. The court found that the selection of entries in Key’s directory was original.³⁸ In addition, the arrangement of the directory into categories (e.g., Accountants, Bridal Shops, Shoe Stores, Bean Curd & Bean Sprout Shops) was, when “viewed in the

³⁶ *Id.* at 349. This is consistent with the Court’s statement that “[f]acts, whether alone or as part of a compilation, are not original and therefore may not be copyrighted.” *Id.* at 350.

³⁷ 945 F.2d 509 (2d Cir. 1991).

³⁸ *Id.* at 513.

aggregate,” original, because it “entailed the de minimis thought needed to withstand the originality requirement.”³⁹

In *Kregos v. Associated Press*,⁴⁰ the court found the plaintiff’s “pitching form” — a form comprised of nine statistics about a pitcher’s performance — copyrightable. Kregos’ selection of those nine statistics from the universe of statistics that can be used to describe a pitcher’s performance could be original, according to the court. Reversing the district court’s grant of summary judgment to the defendant, the Second Circuit held that “[i]t cannot be said [as a matter of law that] Kregos has failed to display enough selectivity to satisfy the requirements of originality.”⁴¹

By contrast, in *Victor Lalli Enterprises, Inc. v. Big Red Apple, Inc.*,⁴² the Second Circuit found insufficient creativity to support a copyright. The compilation at issue in *Lalli* was comprised of “lucky numbers” used in gambling, arranged in a grid with months along the vertical axis and days of the month along the horizontal axis. The numbers were computed according to a formula that was standard in that industry. The court found no originality in either the selection or arrangement of the data: “Lalli exercises neither selectivity in what he reports nor creativity in how he reports it.”⁴³ The compilation was therefore held uncopyrightable.⁴⁴

³⁹ *Id.* at 514.

⁴⁰ 937 F.2d 700 (2d Cir. 1991).

⁴¹ *Id.* at 704.

⁴² 936 F.2d 671 (2d Cir. 1991).

⁴³ *Id.* at 673.

⁴⁴ The Sixth Circuit relied on *Victor Lalli* and other cases in concluding that a catalogue of replacement belts “organized in a manner unknown to the industry prior to its publication” was insufficiently creative to qualify for copyright protection. *J. Thomas Distributions, Inc. v. Greenline Distributions, Inc.*, 41 U.S.P.Q.2d 1382 (6th Cir. 1986). There have been a number of recent district court cases addressing the issue of copyrightability as well. See, e.g., *Matthew Bender & Co. v. West Pub. Co.*, 1997 U.S. Dist. LEXIS 6915 (S.D.N.Y. May 19, 1997) (ruling without written opinion that West’s pagination of reported cases was not copyrightable, and holding that West’s editorial revision of cases themselves entails no copyrightable

Among works that are particularly vulnerable to a finding of uncopyrightability are comprehensive factual databases covering an entire universe of information, where the element of “selection” is lacking and the “arrangement” is obvious.⁴⁵ The very comprehensiveness and ease of use of such a database may account both for its commercial value and its lack of protection under copyright.

2. *Scope of Protection*

The *Feist* statement that “the copyright in a factual compilation is thin” has been borne out in case law subsequent to the *Feist* decision. In both *Key Publications* and *Kregos*, the Second Circuit’s holding that the work was sufficiently original to be copyrightable was followed by a finding of noninfringement.⁴⁶ Although the court had stated in *Key Publications* that, while compilation copyright is thin, “we do not believe it is anorexic,”⁴⁷ the scope of protection adopted

authorship): *Oasis Pub. Co. v. West Pub. Co.*, 924 F. Supp. 918 (D. Minn. 1996) (upholding copyrightability of arrangement of cases in West’s Southern Reporter (relying on *West Pub. Co. v. Mead Data Central, Inc.*, 799 F.2d 1219 (8th Cir. 1986), *cert. denied*, 479 U.S. 1070 (1987)) and finding that defendant’s use of star pagination to West page numbers was infringement); *National Council on Compensation Ins., Inc. v. Insurance Data Resources, Inc.*, 40 U.S.P.Q.2d 1362 (S.D. Fla. 1996) (rejecting copyrightability of manual comprised of job codes and formulas used by insurance ratings organization to gather workers’ compensation experience data).

⁴⁵ *Cf. Warren Pub., Inc. v. Microdos Data Corp.*, 115 F.3d 1509 (11th Cir. 1997) (holding plaintiff “did not exercise any creativity or judgment in ‘selecting’ cable systems to include in its Factbook, but rather included the entire relevant universe known to it”). In spite of the fact that the copyrightability of the plaintiff’s compilation was conceded by the defendant (and therefore not an issue on appeal), the court did not find any element of the plaintiff’s work that it examined to be protectible. From a plaintiff’s standpoint, this has much the same effect as a finding of uncopyrightability, since the only conduct that arguably can be said to infringe is verbatim duplication of the entire work. *See also American Dental Assoc. v. Delta Dental Plans Assoc.*, 39 U.S.P.Q.2d 1714 (N.D. Ill. 1996) (selecting dental procedures in “Code on Dental Procedures and Nomenclature” was intended to be comprehensive, and therefore did not exhibit minimal originality to be copyrightable; arrangement of procedures under various headings and subheadings was likewise unoriginal and unprotectible).

⁴⁶ The Second Circuit found that the defendant’s compilation did not infringe in *Key Publications, Inc. v. Chinatown Today Pub. Enters. Inc.*, 945 F.2d 509, 515-16 (2d Cir. 1991). In *Kregos v. Associated Press*, the district court reached that conclusion on remand. 795 F. Supp. 1325 (S.D.N.Y. 1992), *aff’d*, 3 F.3d 656 (2d Cir. 1993).

⁴⁷ *Key Publications*, 945 F.2d at 514.

in *Kregos* was quite narrow. There, the Second Circuit held that the defendant's compilation would not infringe if it "differs in more than a trivial degree" from the plaintiff's work, essentially creating a "virtual identity" standard for infringement.⁴⁸ The Ninth Circuit had also applied a virtual identity standard in compilation cases predating the *Feist* decision.⁴⁹ Without necessarily articulating a virtual identity standard, a number of district courts have adopted a similarly narrow scope of protection.⁵⁰

Other courts have accorded even thinner protection to compilations in which copyright was conceded, failing to discern originality in any particular acts of selection or arrangement. In a pair of post-*Feist* cases, the Eleventh Circuit found that copying of significant portions of copyrightable compilations was not infringing because the material copied did not rise to the level of creative authorship.

In *Bellsouth Advertising & Publishing Corp. v. Donnelley Information Publishing, Inc.* ("*BAPCO*"),⁵¹ the Eleventh Circuit held that the defendant's entry into a computer of all of the

⁴⁸ *Kregos*, 937 F.2d 700, 710; see also *Harbor Software, Inc. v. Applied Sys., Inc.*, 936 F. Supp. 167, 170-71 (S.D.N.Y. 1996) (applying "trivial difference test" to screen displays and reports generated by computer program, which court had previously determined to be protectible as compilations).

⁴⁹ *Harper House, Inc. v. Thomas Nelson, Inc.*, 889 F.2d 197, 205 (9th Cir. 1989) (treating printed organizer as compilation of uncopyrightable elements and employing virtual identity standard for infringement).

⁵⁰ See, e.g., *Alexandria Drafting Co. v. Amsterdam*, 1997 U.S. Dist. LEXIS 8197 (E.D. Pa. June 4, 1997) (treating plaintiff's maps as compilations of "pictorial facts representing an objective reality," and holding that copying of features such as positions of symbols and street alignments did not constitute infringement); *Martindale-Hubbell, Inc. v. Dunhill Int'l List Co.*, No. 88-6767-CIV-ROETTGER (S.D. Fla. Dec. 30, 1994) (unpublished) (holding that wholesale copying of names, addresses, and other items of information from plaintiff's directory was not infringement). Cf. *Nester's Map & Guide Corp. v. Hagstrom Map Co.*, 796 F. Supp. 729, 734 (E.D.N.Y. 1992) (stating that "Key Publications does not stand for the proposition that copying copyrighted materials is proper so long as the copying, though significant, is done in moderation," and finding infringement of plaintiff's compilation of New York City cross streets and building numbers).

⁵¹ 999 F.2d 1436 (11th Cir. 1993) (en banc).

names, addresses and telephone numbers of advertisers in the plaintiff's yellow pages telephone directory, together with business type and type of advertisement, did not infringe.

Since the parties had stipulated to the copyrightability of the plaintiff's directory, and agreed that "the only elements of a work entitled to compilation copyright protection are the selection, arrangement or coordination as they appear in the work as a whole,"⁵² the court focused on the elements of selection, coordination and arrangement that the plaintiff claimed were infringed, and found each to be either unprotectible or not copied. For example, the plaintiff claimed (and the district court held) that it selected the listings by determining the geographic scope of the directory, establishing a closing date for changes, and limiting listings to subscribers to its business telephone service, as well as through a variety of marketing techniques. The court found that these elements did not meet the level of creativity required by *Feist*.⁵³ Moreover, the court did not consider these elements to be "acts of authorship, but techniques for the discovery of facts The protection of copyright must inhere in a creatively original *selection* of facts to be reported and not in the creative means used to discover those facts."⁵⁴

The court also found the arrangement of the directory "in an alphabetized list of business types, with individual businesses listed in alphabetical order under the applicable headings" to be unoriginal, and to have merged with the idea of a business directory.⁵⁵ As to the headings used in the plaintiff's directory, the court did not rule on protectibility, finding as a factual matter that there was insufficient evidence to establish that defendant had copied them.⁵⁶

⁵² *Id.* at 1438.

⁵³ *Id.* at 1441.

⁵⁴ *Id.* (emphasis in original).

⁵⁵ *Id.* at 1442.

⁵⁶ *Id.* at 1444. Relying on *BAPCO*, a Florida district court reached the same result in a case involving the Martindale-Hubbell Law Directory. *Martindale-Hubbell, Inc. v. Dunhill Int'l List Co.*, No. 88-6767-DIV-ROETTGER (S.D. Fla. Dec. 30, 1994) (unpublished). The defendant's copying of all of the names

The Eleventh Circuit reached a similar result in *Warren Publishing, Inc. v. Microdos Data Corp.*⁵⁷ As in *BAPCO*, the copyrightability of Warren’s compilation — a hard copy directory of cable television systems and their owners — was conceded and therefore not an issue before the court.⁵⁸ Microdos, the defendant, marketed an electronic database of information on the cable television industry. Warren claimed infringement as to the communities chosen and the designation of certain of them as “lead communities” in circumstances where a cable operator owns systems in multiple communities.⁵⁹ The district court had found that “the selection of . . . communities was creative and protectible because Warren uses a unique system in selecting the communities that will be represented in the Factbook.”⁶⁰ The Eleventh Circuit held that, to the extent that the district court was correct in characterizing Warren’s claim as relating to a *system* of selecting communities, section 102(b) of the Copyright Act would bar protection.⁶¹ Even if that characterization were incorrect, the court held that Warren’s selection was not original and thus unprotectible. According to the Eleventh Circuit, Warren “did not exercise any creativity or judgment in ‘selecting’ cable systems to include in its Factbook, but rather included

and addresses of lawyers in the plaintiff’s directory, together with certain “correlating data” (attorney specialization, title, firm composition and structure) was held not to be an infringement, since those elements were all unprotectible facts. *Id.* at 13-14. As in *BAPCO*, the parties did not dispute the copyrightability of plaintiff’s work as a whole. *Id.* at 9.

⁵⁷ 115 F.3d 1509 (11th Cir. 1997) (en banc).

⁵⁸ *Id.* at 1513 n.4.

⁵⁹ *Id.* at 1512. Warren had also claimed infringement as to the data fields and the data field entries. *Id.* The district court found that Microdos had not infringed the data field format and that the data field entries were unprotectible facts. *Id.*

⁶⁰ *Id.* at 1516.

⁶¹ *Id.* at 1517. Section 102(b), which is set out in full above, precludes protection for “any idea, procedure, process, system, method of operation, concept, principle, or discovery” 17 U.S.C. § 102(b).

the entire relevant universe known to it.”⁶² As to the selection of principal communities, the court held that since Warren made this determination by contacting cable operators and asking them, “the selection is not its own, but rather that of the cable operators.”⁶³ Consequently, the court found no infringement and vacated the district court’s injunction.

BAPCO and *Warren* appear to equate a compiler’s criteria for selection and organization, respectively, with ideas—which are by definition unprotectible. Taken together, these two cases represent a different approach from the doctrine of “soft facts” or “soft ideas” articulated by the Second Circuit in *CCC Information Servs., Inc. v. Maclean Hunter Market Reports, Inc.*⁶⁴ In *CCC*, the Second Circuit posited that there are facts or ideas that are “infused with the author’s taste or opinion,” as opposed to explaining phenomena or furnishing solutions to problems.⁶⁵ The court recognized that using the merger doctrine⁶⁶ to rule out protection for the compilation itself by characterizing as “ideas” the criteria used to select or arrange its contents would render copyright for compilations “illusory.”⁶⁷ This is because “virtually any independent creation of the compiler as to selection, coordination, or arrangement will be designed to add to the usefulness or desirability of his compendium for targeted groups of potential customers, and will represent an idea.”⁶⁸ The approach taken by the court was, “[i]n cases of wholesale takings of compilations, a

⁶² *Warren Pub.*, 115 F.3d at 1518.

⁶³ *Id.* at 1519.

⁶⁴ 44 F.3d 61 (2d Cir. 1994).

⁶⁵ *Id.* at 71 (relying on *Kregos*, 37 F.2d at 707).

⁶⁶ Under the merger doctrine, where an idea can be expressed in only one or a small number of ways, the expression is said to have “merged” with the idea and become unprotectible. See *Kregos*, 937 F.2d at 705; *Herbert Rosenthal Jewelry Corp. v. Kalpakian*, 446 F.2d 738, 742 (9th Cir. 1971).

⁶⁷ *CCC Info. Servs.*, 44 F.3d at 70-71. The court also held that the selection and arrangement of data in a compilation of used car valuations (the “Red Book”) “displayed amply sufficient originality” to satisfy *Feist*. *Id.* at 67.

⁶⁸ *Id.* at 70.

selective application of the merger doctrine, withholding its application as to soft ideas infused with taste and opinion . . . ”⁶⁹

In summary, very few of the post-*Feist* compilation cases have held entire works to be uncopyrightable. In fact, copyrightability of the entire work is seldom even contested. Disputes tend to focus instead on the scope of protection. Consistent with *Feist*'s pronouncement that copyright affords compilations only “thin” protection, most of the post-*Feist* appellate cases have found wholesale takings from copyrightable compilations to be non-infringing. This trend is carrying through to district courts as well.⁷⁰

⁶⁹ *Id.* at 72. See also *Compaq Computer Corp. v. Procom Tech., Inc.*, 908 F. Supp. 1409, 1418 (S.D. Tex. 1995) (stating Compaq’s compilation of five “threshold values” used to predict imminent failure of disk drive meets *Feist* standard since Compaq made numerous subjective choices requiring creativity and judgment in determining which values to monitor; moreover, “the underlying elements of the compilation are not facts” because they were determined by Compaq based on its estimate of when drive would fail and its business judgment as to when it would be willing to replace it under product warranty); Jane C. Ginsburg, *Copyright, Common Law and Sui Generis Protection of Databases in the U.S. and Abroad*, U. CIN. L. REV. (forthcoming 1997). But see *Alexandria Drafting Co. v. Amsterdam*, 43 U.S.P.Q.2d 1247 (E.D. Pa. 1997) (copying of “false facts” invented by plaintiff and inserted in its work to detect copying is not infringement); *Nester’s Map & Guide Corp.*, 796 F. Supp. at 733.

⁷⁰ See *supra* note 51.

II. DATABASE INDUSTRY PRACTICES

Many of the issues discussed in this report relate in some way to the manner in which the database industry operates today: how databases are protected against unauthorized use, and how they are licensed. A basic overview of industry practices is useful in examining the adequacy of existing protection and the impact of any changes in the law.

The information in this section is derived from a number of sources, including comments made at the Copyright Office meetings, public documents and submissions prepared by industry members, including a 1995 position paper of the Information Industry Association,⁷¹ informal queries by Copyright Office staff, and third party publications. While details can be difficult to obtain, since database producers are hesitant to make public their proprietary information and business strategies, it is possible to identify certain common or standard practices as well as general trends.

The limitations in the coverage of copyright, described above, have motivated database producers to be creative in protecting their products. They have developed a variety of legal and business strategies, which are typically implemented in combination. In recent years, three main strategies have emerged. Producers have (1) sought to enhance their copyright protection by altering the structure or content of their databases to incorporate greater creativity; (2) increased their reliance on contracts to restrict the use of databases; and (3) employed technological safeguards to prevent unauthorized access and use.⁷²

A. Enhancing Copyright Protection

⁷¹ INFORMATION INDUSTRY ASS'N, DATABASE PROTECTION: AN INDUSTRY PERSPECTIVE ON THE ISSUES (1995).

⁷² In appropriate circumstances, producers also take steps to secure trade secrecy and trademark protection. As discussed in section VII.B.2-3 *infra*, however, such protection is limited in its applicability.

Some producers have altered the content or structure of their databases, with the goal of obtaining or increasing meaningful copyright protection. One technique is to enhance the contents of the database by adding copyrightable material. Another is to make the database more creative through subjective selection and unusual arrangement of its content. Databases that incorporate one or more of these techniques are often referred to as “value-added databases.” While some companies first began enhancing their factual content in response to *Feist*, other companies have built their businesses on this practice for market reasons.

It is difficult to obtain specific examples of “enhanced” databases, since producers do not wish to identify databases that are vulnerable to copying, or point to which aspects of their databases they believe to be copyrightable.

1. Adding Copyrightable Text

Some database producers have purposely added copyrightable text to their databases in response to the *Feist* decision. Databases that feature copyrightable text have a stronger likelihood of copyright protection than ones that are purely factual. Such text may take the form of descriptive bibliographies, abstracts, profiles or annotations connected to database entries. A competitor interested in copying only the noncopyrightable portions would face two obstacles: (1) the process of separating facts from text may be labor intensive (though possibly less so as technology improves); and (2) the copyrightable material may be integral enough to give the first producer a competitive edge in the marketplace.

Apart from the copyright implications, a market clearly exists for databases combining text with facts or other public domain materials. EMBASE, for example, is an on-line database from Elsevier Science; its index of titles from international biomedicine, pharmaceutical research and related disciplines includes bibliographic information. American Statistical Index, from Congressional Information Inc., provides abstracts as well as indexing of all federal statistical publications. The reports of judicial opinions published by West Publishing Company include synopses of the cases.

There is a simpler, although less effective, alternative to incorporating copyrightable text throughout the database. Some producers insert text only in designated places, such as the foreword or afterword to a directory, or a section describing community services. As a business matter, such additions may provide consumers with a useful component that other compilations lack. From a legal standpoint, this strategy has limitations. It will make the work as a whole protectible, but will not extend protection to otherwise unprotectible material it contains. It therefore could prevent unsophisticated, verbatim copying, but would not serve as a meaningful barrier to copying of the factual component. The producer will, however, be able to obtain a registration for the database with the Copyright Office. Although the copyright still covers only the copyrightable components of the work, the existence of the registration may deter a would-be copier.

As a variant of this strategy, database producers might insert quasi-factual material such as approximations or “soft facts” into the database. In addition to its utility to consumers, material of this sort may have a greater claim to copyright protection, and may therefore help to ensure copyright protection for the database as a whole.⁷³ The scope of the protection, however, will remain thin.

2. *Making the Database More Creative*

In the wake of *Feist*, practitioners advised database producers to increase the likelihood of copyright protection by incorporating a more subjective selection of facts or a more creative arrangement.⁷⁴ The utility of this strategy depends on the nature of the database. For some databases, such added value may enhance the desirability of the product. Lawyers have long found the West Publishing Company’s indexing system of cases by key number to be a valuable

⁷³ See discussion of “soft facts” doctrine, *supra*, section I.B.2.

⁷⁴ See, e.g., Baila H. Celedonia, *From Copyright to Copycat: Open Season on Data?*, PUB. WKLY., Aug. 16, 1991, at 34 (recommending that compilers “consider enriching their publications in terms of subjective analysis of the[] facts,” and attempt to incorporate “value-added subjective selection and arrangement” to make their products more protectible).

research tool. Consumers may prefer a listing of restaurants that weeds out those not worth visiting.

This is not the case, however, for the many databases whose market appeal lies in the availability of comprehensive and easily accessible, unadorned facts. From the point of view of an individual user, added textual information may be superfluous or irrelevant, and may make the database too large or unwieldy. Subjective selection may destroy the database's value as a resource when the user's goal is to examine all the relevant facts. And creative arrangement, to the extent that it is possible,⁷⁵ will almost by definition make the facts more difficult to locate. Moreover, adding these elements entails time and money. This may make the database more expensive to create, which in turn may make it more expensive for consumers.

B. Contractual Protection

For many database producers, contracts provide a major source of protection, either complementing copyright law or picking up the thread where it falls short. Although contracts in the database industry were common prior to *Feist*, in both the digital and the print worlds, companies report that they have reviewed and strengthened them in recent years. These include form contracts as well as negotiated agreements tailored for individuals or institutions. They may appear in traditional print, in shrink-wrap form, on a computer screen as part of software or on-line, or in a combination of these formats. For example, a user may first encounter license terms through shrink-wrap packaging, and then receive the same or additional terms on his computer screen.

1. *Terms of Use*

Though terms vary from company to company and from product to product, the core coverage of database contracts tends to be similar: contracts restrict access, specify permissible

⁷⁵ The contents of a database in electronic form will primarily be arranged by the particular search used to retrieve them, rather than according to an overall, predetermined design of the producer.

conditions of use, and set terms for enforcement and remedies. They may also contain language designed to educate the consumer about legal rights and limitations.

For databases other than those made freely available to the public (such as telephone directories), contracts are generally the condition of access for a user. Even for a noncopyrightable database, they can also offer users the benefit of timely, updated information.⁷⁶

One common use of contracts is to restrict or limit the manner of use of a database. An on-line license typically dictates the parameters of acceptable downloading and dissemination, as in the following excerpts from the agreements of two major database producers, Dun & Bradstreet and Lexis-Nexis:

You are granted a nonexclusive, nontransferable limited license to access and use for research purposes the Online Services and Materials from time to time made available to you . . . you are prohibited from downloading, storing, reproducing, transmitting, displaying, copying, distributing, or using Materials retrieved from the Online Services. You may not print or download Materials without using the printing or downloading commands of the Online Services.⁷⁷

Customer shall not . . . use Information in connection with providing advice or recommendations to others, publish Information in the news media, incorporate or use Information in any kind of database or marketing list to be provided to a third party, or produce Information in judicial or administrative proceedings, including discovery proceedings, without D & B's prior written consent, unless required by law.⁷⁸

Customer shall not copy, download, upload or in any other way reproduce Information or Software except . . . Customer may

⁷⁶ See Ginsburg, *supra* note 70, at 16 (“Copyright is not synonymous with commercial value, and not everything that might be the subject of a license is a subject of copyright. Here, the value is not so much in the content, as in the timing of its delivery. The same stock quote information one hour later is worthless”).

⁷⁷ Lexis-Nexis Master Agreement, ¶¶ 1.1, 1.3.

⁷⁸ Dun & Bradstreet Master Agreement, ¶ 3.3.

create for internal use online and offline printouts of materials received in electronic form.⁷⁹

These agreements limit users' ability to use the contents of databases in ways that the law would otherwise allow.

Other agreements used in connection with databases in CD-ROM format make explicit reference to fair use. For example, a Lexis-Nexis contract for CD-ROMs allows users to "create a printout of an insubstantial portion of material retrieved from the Licensed Databases," and reproduce them "to the extent permitted under the fair use provisions of the Copyright Act."

Contracts may also establish enforcement procedures and remedies. Such terms can include the ability to terminate a subscriber's access, suspend or discontinue services, or pursue any other legal remedy.⁸⁰

Terms may be more restrictive for particularly valuable or sensitive information. Dun & Bradstreet, for example, has strict practices for its sensitive information, such as information relating to bankruptcy filings. For these products, it restricts third party distribution and exercises extreme caution in its licensing practices. By keeping direct control over distribution, the company is always in a position to recall or expand earlier data. It also conducts thorough background checks on potential patrons and extends licenses only to those who are creditworthy and risk-free.

Despite their usefulness, database producers report practical limitations on the effectiveness of contract restrictions, primarily as a result of the privity requirement of contract law.⁸¹ A CD-ROM product, for instance, is physically out of a company's control once delivered to the client. The contract accompanying the product binds only the initial parties; it would not

⁷⁹ *Id.* at ¶¶ 4.1, 4.2.

⁸⁰ See generally contracts collected in INFORMATION INDUSTRY ASS'N, CONTRACTS IN THE INFORMATION INDUSTRY III (Peter Marx, ed. 1995).

⁸¹ See *infra* section VII.B.4.

bind third parties who come into possession downstream. As a safeguard, companies may limit CD-ROM licenses to institutions that are not seen as grave risks for piracy.

2. Pricing

As might be expected, different companies provide different types of price structures. Some charge users a flat fee; some charge by byte or by minute for databases made available online. Others provide free unlimited access as part of a subscription.

Whatever the system used, it is fairly standard to differentiate prices among users. Companies may offer two-, three-, or even four-tier pricing, contingent on the nature of the use that will be made of the database.⁸² Some do not charge at all for non-profit or academic uses, and then have graduated rates for different commercial uses. In general, commercial producers report that they make their databases available to educational institutions at greatly reduced fees—often a small fraction of the fees to commercial users. Many will charge at least some fee, in order to cover costs, and to make clear that there is value to their product and that it should be treated accordingly.

Recently, educational institutions have tended to seek “buffet-style” terms, allowing unlimited use by as many users as desired for a flat fee. Various mechanisms are utilized, with the fees to such institutions sometimes priced according to the number of users at that institution. A choice of features may also be available, with higher fees charged for better services or software, such as more sophisticated search engines.

In contrast to commercial producers, some science agencies have found price differentiation impractical, since it can be more expensive for them to keep track of who is entitled to which price than to make the information available for free.

⁸² See, e.g., *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1449 (7th Cir. 1996), discussed below in section VII.B.4. ProCD sold its product at one price for consumers and at another, higher price for commercial users. The court noted that this strategy benefited consumers, by providing them a product at an attractive price, as well as commercial users, by allowing ProCD to offer the product to them at a price lower than would be possible in the absence of consumer sales. *Id.*

C. Technological Safeguards

Technological safeguards, while offering great promise to producers in supplementing legal protection, are still in the early stages of development. Despite the frequent mention of cryptographic software as a technological solution to the protection of intellectual property, such sophisticated protections are not yet in common use. Few if any database producers today rely upon technology as a sole means of protection, utilizing such safeguards only in combination with licensing and enforcement of legal rights.

The technological safeguards in use today are in large part simple, or low-end, measures. Standard measures in the on-line world include the requirement of user-passwords for dial-up services and the ability to disconnect a user whose behavior appears suspect. Lexis-Nexis, for example, will automatically cut off users if contractual limits for downloading are exceeded. In these circumstances, a user's password can be temporarily disabled until further information about his or her actions can be obtained.

Nevertheless, some companies believe that encryption is an option whose time is just around the corner. At present, many users of large databases are institutional clients who obtain access through closed system networks. As more database providers consider making their products available for open exploitation over the Internet by individual consumers, encryption needs will expand. For these providers, the goal is to provide a commercial channel secure enough to allow database content and user payments to be exchanged electronically. They believe the growth of commercial products on the World Wide Web will lead to greater use of access keys and other forms of decryption software. Such options are, in the prediction of one company, a year or so away. For now, the combination of relatively high costs and still undeveloped on-line markets make them impractical. It is likely that any on-line dissemination of databases will involve a combination of encryption, secure electronic transfer of funds, and "click-wrap" licenses requiring users to agree to terms before accessing the database.

Meanwhile, however, a few companies have begun to experiment with encryption for their off-line products. For example, one Dun & Bradstreet product, *Business Solutions in a Box*, is a CD-ROM package of information for small business entrepreneurs. Although the entire database is included on the disk, it appears in encrypted form with restrictions that prevent users from accessing and downloading more than 300 of a possible ten million records unless they pay an additional fee. In keeping with industry trends, however, the encryption is not Dun & Bradstreet's sole protection. Users must assent to these terms in a "click-wrap" license before accessing any of the records.

Database producers consider technological safeguards, like contracts, to be a useful but imperfect solution. Such safeguards cannot protect databases in print form, which still represent a large proportion of the market. Moreover, high-end measures like encryption are, in their current form, expensive to maintain and inconvenient for users. As technology develops, their cost may decrease and their ease of use may increase. Nevertheless, producers report that they will never rely solely on technological measures to protect their products. First, there are security problems. Such measures, like physical locks, can be broken into; encryption keys, for example, can be shared by users in some circumstances.⁸³ Second, once a database has been lawfully decrypted, the producer cannot control subsequent access to and use of the decrypted version.

⁸³ Security concerns could be ameliorated by legal provisions making it unlawful to circumvent technological safeguards. Such proposals, in the context of safeguards for copyrighted works, are under consideration in Congress as part of implementing legislation for the two World Intellectual Property Organization treaties concluded in Geneva in December 1996 (described *infra* in nn. 175-76). H.R. 2281, 105th Cong., 1st Sess. § 3 (1997); S. 1121, 105th Cong., 1st Sess. § 3 (1997) (adding a new section 1201 to Title 17 that would prohibit "circumvent[ion of] a technological protection measure that effectively controls access to" a copyrighted work).

III. COPYRIGHT OFFICE REGISTRATION PRACTICES

The question of whether and to what extent databases are copyrightable is basic to the discussion of database protection generally and is an underlying theme throughout this report. The Copyright Office, as the agency of the U.S. government responsible for registering copyright claims in works of authorship, makes determinations of copyrightability on a daily basis. Its work includes the task of assessing the copyrightability of databases, which are often dynamic works of authorship and can be fixed in many forms, from print to electronic media. These assessments have important consequences. A registration certificate issued within five years of publication is *prima facie* evidence of copyrightability and of the facts stated in the certificate.⁸⁴ Moreover, courts generally give deference to the Register of Copyrights with respect to copyrightability and her decision to allow or deny registration.⁸⁵

Over the years, the Office has developed practices and procedures to assist in determining the copyrightability of the works it examines, including databases. This section discusses registration generally and outlines the practices governing the registration of databases both before and after *Feist*.

⁸⁴ 17 U.S.C. § 410(c).

⁸⁵ See *Esquire v. Ringer*, 591 F.2d 796, 805-06 (D.C. Cir. 1978), *cert. denied*, 440 U.S. 908 (1979) (quoting *Bouvé v. Twentieth Century-Fox Film Corp.*, 122 F.2d 51, 53 (D.C. Cir. 1941)). *Accord*, *Custom Chrome, Inc. v. Ringer*, 35 U.S.P.Q.2d 1714 (D.D.C. 1995); *Jon Woods Fashions, Inc. v. Curran*, 8 U.S.P.Q.2d 1870 (S.D.N.Y. 1988); *John Muller & Co., Inc. v. New York Arrows Soccer Team, Inc.*, 802 F.2d 989 (8th Cir. 1986); I MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 2.08[B][1] (1997) [hereinafter *Nimmer*].