

CHAPTER 5

What Is Copyrighted?

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§ 5.01 Subject Matter of Copyright

Patents and trade secrets may protect concepts in the broad sense. Almost any concept may be the subject of a patent if it has functional utility and meets the other high standards for patentability.¹ Similarly, virtually any information or idea may qualify for trade secret protection, as long as it has limited availability, derives economic value from its secrecy, and is properly guarded.²

¹ See § 2.03 *supra*. There are limitations, however. Patents are not available for such things as fundamental principles of science and mathematics, mathematical formulae, algorithms, and new business ideas—at least not in their abstract forms, divorced from specific devices or methods used to implement them. See § 2.02[2] *supra*.

² See §§ 4.02[1], 4.03 *supra*.

In contrast, copyright does not protect "ideas" or "facts" at all, but only the form of expression of ideas or facts in a particular work of authorship.³ The dichotomy between idea and expression, which is fundamental to copyright law, distinguishes copyrights from other forms of intellectual property. Copyright does not prevent anyone from copying the ideas or facts contained in a copyrighted work, or from describing in different words any real-life event that the work portrays.⁴ However, copyright does protect an author's original expression.

As its name suggests, copyright prohibits unauthorized copying and certain similar acts. It does not protect an author against independent creation of the same expression, and proof of independent creation is a complete defense to a claim of copyright infringement.⁵ Subject to this basic limitation, however, copyright provides broad and commercially useful protection for various forms of artistic, creative, and intellectual expression.

[1]—General Scope of Subject Matter

Although in theory both the Copyright Clause of the United States Constitution⁶ and the language of the copyright statute limit the scope of copyright protection, in practice the courts interpret both broadly. The Copyright Clause empowers Congress to protect the "writings" of "authors,"⁷ and the courts have construed these terms broadly.⁸ According to the Supreme Court, a "writing" may include "any physical rendering of the fruits of creative intellectual or aesthetic labor."⁹

³ See § 5.01[2] *infra*.

⁴ See *id.*

⁵ See, e.g.:

Supreme Court: Mazer v. Stein, 347 U.S. 201, 218, 74 S.Ct. 460, 98 L.Ed. 630 (1954) ("Absent copying there can be no infringement of copyright") (Footnote omitted.); Bleistein v. Donaldson Lithographing Co., 188 U.S. 239, 249, 23 S.Ct. 298, 47 L.Ed. 460 (1903) ("Others are free to copy the original. They are not free to copy the copy").

Second Circuit: Sheldon v. Metro-Goldwyn Pictures Corp., 81 F.2d 49, 54 (2d Cir. 1936) (*dictum*: independent creation of Keat's "Ode on a Grecian Urn" would merit separate copyright protection).

⁶ U.S. Const., Art. I, § 8, cl. 8.

⁷ *Id.* The Clause gives Congress the power "to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries ..." See also, §§ 1.08[1], 2.01 *supra*.

⁸ See, e.g.:

Supreme Court: Goldstein v. California, 412 U.S. 546, 561, 93 S.Ct. 2303, 37 L.Ed.2d 163 (1973) ("The terms ['writings' and 'authors'] have not been construed in their narrow literal sense but, rather, with the reach necessary to reflect the broad scope of constitutional principles"); 412 U.S. at 562 ("[sound] recordings of artistic performances may be within the reach" of Copyright Clause); Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 57-58, 4 S.Ct. 279, 28 L.Ed. 349 (1884) (Constitution authorizes copyright of photographs).

Second Circuit: Reiss v. National Quotation Bureau, Inc., 276 F. 717, 719 (S.D.N.Y. 1921) ("writings" include book of nonsense syllables intended for use in preparing secret telegraphic codes; Constitution is "not a strait-jacket, but a charter for a living people").

The patent branch of the Copyright Clause enjoys an equally broad interpretation. See § 2.02[1][a] *supra*.

⁹ Goldstein v. California, 412 U.S. 546, 561, 93 S.Ct. 2303, 37 L.Ed.2d 163 (1973).

In adopting the Copyright Act of 1976,¹⁰ Congress made clear that it did not intend to exhaust its constitutional power under the Copyright Clause. Instead of using the phrase "all the writings of an author," as it had done in the Copyright Act of 1909,¹¹ Congress used the somewhat narrower phrase "original works of authorship."¹² Its purpose in choosing this narrower phrase was to avoid giving the courts "the alternative of holding copyrightable something that Congress clearly did not intend to protect, or of holding constitutionally incapable of copyright something that Congress might one day want to protect."¹³ In this way Congress sought to reserve for itself some constitutional power to expand the scope of copyright protection in the future.¹⁴

Section 102(a) of the Copyright Act of 1976 describes the subject matter of copyright in broad, general terms:

"Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or

¹⁰ Publ. L. No. 94-553, 90 Stat. 2541 (Oct. 19, 1976), codified in Title 17 U.S.C. This is the current copyright statute; it replaced in its entirety the Copyright Act of 1909, Pub. L. No. 60-349, 35 Stat. 1075 (Mar. 4, 1909). The 1976 Act took effect generally on January 1, 1978, although a few provisions took effect upon enactment. See Pub. L. No. 94-553, §§ 102, 103, 90 Stat. 2541, 2598-2599 (Oct. 19, 1976).

The copyright revision that culminated in the 1976 Act took over twenty years. For brief judicial histories of the effort, see: *Mills Music, Inc. v. Snyder*, 469 U.S. 153, 159-61, 105 S.Ct. 638, 83 L.Ed.2d 556 (1985); *Sony Corp. of America v. Universal City Studios, Inc.* 464 U.S. 417, 462-63 n.9, 104 S.Ct. 774, 78 L.Ed.2d 574 (1984) (Blackmun, J., dissenting).

A House report on the revision effort contains a complete section-by-section analysis of the statute. See H.R. Rep. No. 1476, 94th Cong., 2d Sess. (Sept. 3, 1976), reprinted in 1976 U.S. Code Cong. & Admin. News 5659. Other useful sources of legislative history include the Conference Report, H.R. Rep. No. 1733, 94th Cong., 2d Sess. (Sept. 29, 1976), reprinted in 1976 U.S. Code Cong. & Admin. News 5810, and an early Senate report on a predecessor bill, S. Rep. No. 473, 94th Cong., 1st Sess. (Nov. 20, 1975).

The Conference Report contains no section-by-section analysis. It addressed only the following topics: copyright protection for U.S. government publications, fair use, reproduction by libraries and archives, photocopying for interlibrary loans, limitations on performance and display rights, secondary transmissions (including cable television), exclusive rights in sound recordings, the statutory compulsory license for phonorecords, noncommercial broadcasting, federal preemption, deposit of radio and television programs, remedies for infringement, the "manufacturing clause," protection of ornamental designs for useful articles, and the Copyright Office and Copyright Royalty Tribunal.

The Senate report addressed an earlier version of the copyright bill, which differed in a number of respects from the statute that Congress adopted. The House Report adopted much of the language of the Senate Report verbatim. Consequently, the House Report is the best general source of legislative history for the 1976 Act.

¹¹ See Pub. L. No. 60-349, § 4, 35 Stat. 1075, 1076 (1909), codified at 17 U.S.C. § 4 (1970) ("The works for which copyright may be secured under this title include all the writings of an author").

¹² 17 U.S.C. § 102(a).

¹³ See H.R. Rep. No. 1476, 94th Cong., 2d Sess. 51 (Sept. 3, 1976), reprinted in 1976 U.S. Code Cong. & Admin. News 5659, 5664.

¹⁴ Nonetheless, Congress intended to cover all categories of works covered under the Copyright Act of 1909, plus pantomime and choreography. See H.R. Rep. No. 1476, N.13 *supra*, at 53, reprinted in 1976 U.S. Code Cong. & Admin. News at 5666.

otherwise communicated, either directly or with the aid of a machine or device."¹⁵

This is perhaps the most important sentence in the entire copyright statute. Among other things, it reveals Congress' intention to cover a wide range of works, in whatever form they might be prepared, stored, or recast by present or future technology. The statute or its legislative history specifically mentions such things as books,¹⁶ computer programs,¹⁷ disks,¹⁸ films,¹⁹ fine art,²⁰ globes,²¹ graphic art,²² maps,²³ motion pictures,²⁴ music,²⁵ sculpture,²⁶ video disks,²⁷ and videotape.²⁸

By virtue of the broad language of Section 102(a), the medium in which a work of authorship is prepared, stored, or disseminated to users is irrelevant to copyright protection, as long as the underlying work is eligible for protection and is fixed in at least one tangible medium.²⁹ Thus, a book is still a book, and copyrightable as such, whether it is fixed in print, offset photography, xerography, magnetic disk storage, laserdiscs, or magnetic bubble memory. Once fixed in one tangible medium, the book's copyrighted expression is protected even if that expression is later disseminated in an *intangible* medium, such as radio or television signals.³⁰

Although the scope of copyright protection is broad, it does not necessarily encompass all media of expression that new technologies may create. When confronted with "new forms of creative expression that never existed before," the courts must make case-by-case determinations based on the language of the copyright statute and its history and purpose.³¹ As the House report noted:

¹⁵ 17 U.S.C. § 102(a).

¹⁶ See 17 U.S.C. § 101 (definition of "literary works").

¹⁷ See: *id.* (definition of "computer program"); 17 U.S.C. § 117 (limitations on exclusive rights in computer programs).

¹⁸ See 17 U.S.C. § 101 (definition of "literary works").

¹⁹ *Id.* (definitions of "audiovisual works" and "literary works").

²⁰ *Id.* (definition of "pictorial, graphic, and sculptural works").

²¹ *Id.*

²² *Id.*

²³ *Id.*

²⁴ *Id.* (definition of "motion pictures").

²⁵ *Id.* (definition of "sound recordings").

²⁶ *Id.* (definition of "pictorial, graphic and sculptural works").

²⁷ See H.R. Rep. No. 1476, 94th Cong., 2d Sess. 63 (Sept. 3, 1976), reprinted in 1976 U.S. Code Cong. & Admin. News 5659, 5676 (discussing exclusive right of public performance).

²⁸ *Id.*

²⁹ See § 5.03[1] *infra*.

³⁰ See § 6.01[4] *infra*.

³¹ See H.R. Rep. No. 1476, 94th Cong., 2d Sess. 51 (Sept. 3, 1976), reprinted in 1976 U.S. Code Cong. & Admin. News 5659, 5664.

"Authors are continually finding new ways of expressing themselves, but it is impossible to foresee the forms that these new expressive methods will take. The [Act] does not intend either to freeze the scope of copyrightable subject matter at the present stage of communications technology or to allow unlimited expansion into areas completely outside the present congressional intent. Section 102 implies neither that that subject matter is unlimited nor that new forms of expression within that general area of subject matter would necessarily be unprotected....

"Although the coverage of the present statute is very broad, ... there are unquestionably other areas of existing subject matter that this [Act] does not propose to protect but that future Congresses may want to [protect].³²

For example, under the 1909 Act³³ some new forms of expression, such as electronic music, filmstrips, and computer programs, could have been regarded as extensions of already copyrightable subject matter and therefore copyrightable without new legislation, while others, such as sound recordings and motion pictures, required amendment of the statute.³⁴

Nevertheless, the general scope of subject matter protected by copyright is so broad that it limits protection in only a tiny minority of cases. In most copyright decisions, other limitations on the extent of copyright protection are decisive.

[2]—The Idea/Expression Dichotomy

The most important general limitation on the scope of copyright protection is the idea/expression dichotomy, which precludes copyright protection for facts, principles, and ideas. This dichotomy is fundamental to copyright law, and it applies to every form of copyrighted work in every medium of expression.

[a]—The Basic Doctrine

The idea/expression dichotomy derives from the Supreme Court's decision in *Baker v. Selden*,³⁵ an 1880 case involving a book on principles of accounting. The book described a novel bookkeeping system and contained certain accounting forms now known as T-accounts, which apparently were unusual at that time.³⁶ The plaintiff claimed that another's publication of similar forms infringed the copyright in the book. The Supreme Court, however, denied relief, holding that the defendant had copied only the "art" or method of

³² *Id.* at 51-52, reprinted in 1976 U.S. Code Cong. & Admin. News at 5664-5665.

³³ Copyright Act of 1909, Pub. L. No. 60-349, 35 Stat. 1075 (Mar. 4, 1909).

³⁴ See H.R. Rep. No. 1476, 94th Cong., 2d Sess. at 51-52 (Sept. 3, 1976), reprinted in 1976 U.S. Code Cong. & Admin. News 5659, 5664-5665.

³⁵ *Baker v. Selden* 101 U.S. 99, 100, 25 L.Ed. 841 (1880).

³⁶ See *id.* The forms allowed a bookkeeper to record a day's, week's, or month's operations on one or two pages.

accounting described in the book, which copyright does not protect.³⁷ The Court reasoned that copyright protects only against use of the same expression, that is, "[t]he use by another of the same methods of statement, whether in words or illustrations[.]"³⁸

This has become the accepted interpretation of *Baker v. Selden*—that copyright protects particular expression, but not underlying ideas or facts. According to a 1954 Supreme Court opinion, the *Baker* Court held "that a copyrighted book on a peculiar system of bookkeeping was not infringed by a similar book using a similar plan which achieved similar results where the alleged infringer made a different arrangement of the columns and used different headings."³⁹

Dictum in *Baker v. Selden*, however, is susceptible of broader interpretation. In concluding that copyright in a book cannot provide exclusive rights in the techniques or "art" that it describes, the *Baker* Court observed:

"And where the art it teaches cannot be used without employing the methods and diagrams used to illustrate the book, or such as are similar to them, such methods and diagrams are to be considered as necessary incidents to the art, and given therewith to the public; not given for the purpose of publication in other works explanatory of the art, but for the purpose of practical application."⁴⁰

Read broadly, this passage appears to permit anyone to use the very same forms, not just similar forms, to practice accounting because the book's forms illustrated and implemented a method of accounting that could not in itself be copyrighted. In other words, this passage appears to deny the forms copyright protection entirely. This is the "strong" interpretation of *Baker v. Selden*.

There are four reasons, however, why the strong interpretation is unwarranted. First, the Supreme Court has endorsed the weaker interpretation.⁴¹ Second, the defendant's forms in *Baker v. Selden* were *not* the same as the plaintiff's, and therefore the decision on its facts says nothing about identical forms. Third, even by its terms, the *dictum* in *Baker v. Selden* declined to declare the T-accounts dedicated to the public "for purposes of publication in other works explanatory of the art" as distinguished from utilitarian application. Finally, that dictum in any event applies only when the uncopyrightable idea or method "cannot be used" without borrowing the author's expression or "similar" expression.⁴²

³⁷ *Id.*, 101 U.S. at 101-102, 104-105. The defendant's accounting forms used a "similar plan" but had a different arrangement of columns and different headings. 101 U.S. at 100.

³⁸ *Id.*, 101 U.S. at 104.

³⁹ Mazer v. Stein, 347 U.S. 201, 217, 74 S.Ct. 460, 98 L.Ed. 630 (1954).

⁴⁰ Baker v. Selden, 101 U.S. 99, 103, 25 L.Ed. 841 (1880).

⁴¹ See the text at N. 39 *supra*.

⁴² See also, *Baker v. Selden*, N. 40 *supra*, 101 U.S. at 104 ("in using the art, the ruled lines and headings of accounts *must necessarily be used* as incident to it"). (Emphasis added.)

Thus, the strongest proposition for which *Baker v. Selden* justifiably may be cited is that copyright does not protect expression that is indispensable to conveying or using an underlying idea. Recognizing that the relationship between idea and expression has infinite gradations, modern courts tend to balance the degree to which the expression or use of an idea requires a particular form against the similarity between the plaintiff's and defendant's expressions of the same idea. Even where idea and expression are closely intertwined, courts may prohibit close or verbatim copying that is not required to convey the idea.⁴³

Similar analysis belies any simplistic assertion that copyright does not protect games or blank forms. While copyright may not protect the principles or rules of games in the abstract, it protects the *expression* of games in particular instructions, procedures, or graphic implementations.⁴⁴ Similarly, works that otherwise might be characterized as blank forms may be protected if they contain sufficient original expression and are more than mere templates to be filled with information.⁴⁵ In cases of this sort, the proper rule of law is not that this or that subject matter cannot be protected *per se*, but a sensitive application of the idea/expression dichotomy to the facts of each case.

Since the *Baker v. Selden* decision, the idea/expression dichotomy has become such a fundamental part of copyright law⁴⁶ that Congress codified it in Section 102(b) of the Copyright Act of 1976.⁴⁷ The section reads as follows:

"In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, con-

⁴³ See § 5.01[2][d] *infra*.

⁴⁴ See, e.g.:

Seventh Circuit: Atari, Inc. v. North American Philips Consumer Electronics Corp., 672 F.2d 607, 615, 617-618 (7th Cir.), *cert. denied* 459 U.S. 880 (1982) (idea of PAC-MAN maze-chase video game could not be protected, but particular audiovisual expression of characters and action was protected and infringed).

Ninth Circuit: Goodson-Todman Enterprises, Ltd. v. Kellogg Co., 513 F.2d 913, 914 (9th Cir. 1975) (whether television commercial infringed popular television game show was "close enough question" not to be decided by summary judgment).

Cf. Broderbund Software, Inc. v. Unison World, Inc., 648 F. Supp. 1127, 1134 (N.D. Cal. 1986) (rejecting "rules and instructions" doctrine as applied to computer program menu screens which did not exhaust possibilities of conveying underlying ideas).

⁴⁵ See, e.g.:

Ninth Circuit: Edwin K. Williams Co. v. Edwin K. Williams Co.-East, 542 F.2d 1053, 1060-1061 (9th Cir. 1976), *cert. denied* 433 U.S. 908 (1977) (upholding copyright protection for preprinted booklets for gas station management with seven pages of instructions and thirty-one pages of blank accounting forms because instructions and blank forms constituted "integrated work").

Eleventh Circuit: Digital Communications Associates, Inc. v. Softklone Distributing Corp., 659 F. Supp. 449, 460-462 (N.D. Ga. 1977) (upholding copyright protection for computer program's "status screen" or main menu against claim it constituted a "blank form").

⁴⁶ See *Mazer v. Stein*, 347 U.S. 201, 217, 74 S.Ct. 460, 98 L.Ed. 630 (1954) ("Unlike a patent, a copyright gives no exclusive right to the art disclosed; protection is given only to the expression of the idea—not the idea itself"). (Footnote omitted.)

⁴⁷ 17 U.S.C. § 102(b). See *Feist Publications, Inc. v. Rural Telephone Service Co.*, ___ U.S. ___, 111 S.Ct. 1282, 1293, 113 L.Ed.2d 358 (1991) (discussing ideal expression dichotomy and codification in Section 102(b)).

cept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work."⁴⁸

In codifying the dichotomy, however, Congress did not intend to change the law.⁴⁹

The idea/expression dichotomy denies copyright protection to both ideas and facts. For example, copyright does not protect a general plot idea or "theme" for a book or a movie,⁵⁰ the idea of making a piece of jewelry in the shape of a bee,⁵¹ "indispensable" features of video games,⁵² or *scenes a faire* from a movie or teleplay.⁵³ Copyright also does not protect real or assumed facts, whether in the form of news of the day,⁵⁴ a reporter's research on the news,⁵⁵ information in a telephone directory,⁵⁶ reporting and speculation on an historical event,⁵⁷ or biography.⁵⁸

[b]—Underlying Policies

The idea/expression dichotomy rests on two policies. The first is the distinction between patents and copyrights. Extending copyright protection to ideas would lower the standard of patent protection and allow authors to monopolize ideas through such expedients as describing them in a copyrighted book. Since the ideas would not have to meet the strict standards of novelty,

⁴⁸ 17 U.S.C. § 102(b).

⁴⁹ See H.R. Rep. No. 1476, 94th Cong., 2d Sess. 57 (Sept. 3, 1976), reprinted in 1976 U.S. Code Cong. & Admin. News 5659, 5670 (purpose of Section 102(b) "is to restate ... that the basic dichotomy between expression and idea remains unchanged").

⁵⁰ See *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 122 (2d Cir. 1930), *cert. denied* 282 U.S. 902-903 (1931) (theme of "comedy based upon conflicts between Irish and Jews, into which the marriage of their children enters, is no more susceptible of copyright than the outline of *Romeo And Juliet*").

⁵¹ See *Herbert Rosenthal Jewelry Corp. v. Kalpakian*, 446 F.2d 738, 742 (9th Cir. 1971).

⁵² *Data East USA, Inc. v. Epyx Inc.*, 862 F.2d 204, 209 (9th Cir. 1988). See also, *Frybarger v. IBM Corp.*, 812 F.2d 525, 529-530 & n.2 (9th Cir. 1987).

⁵³ "*Scenes a faire*" are stock scenes used to evoke common emotions or to show common elements of a drama, such as views of lovers walking along boulevards, or shots of departing trains or airplanes. Copyright does not protect them. See, e.g.:

Second Circuit: *Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972, 979 (2d Cir. 1980) (scene in German beer hall, "Heil Hitler" greetings, and singing of German national anthem not protectible).

Seventh Circuit: *Atari, Inc. v. North American Philips Consumer Electronics Corp.*, 672 F.2d 607, 616, 617 (7th Cir.), *cert. denied* 459 U.S. 880 (1982) (treating certain aspects of video game as *scenes a faire*).

Ninth Circuit: See *v. Durang*, 711 F.2d 141, 143 (9th Cir. 1983) (stating general principle).

⁵⁴ See *International News Service v. Associated Press*, 248 U.S. 215, 234, 39 S.Ct. 68, 63 L.Ed. 211 (1918).

⁵⁵ See *Miller v. Universal City Studios, Inc.*, 650 F.2d 1365, 1367-1368, 1372 (5th Cir. 1981).

⁵⁶ See *Feist Publications, Inc. v. Rural Telephone Service Co.*, ___ U.S. ___ 111 S.Ct. 1282, 1296-1297, 113 L.Ed.2d 358 (1991); 111 S.Ct. at 1293 ("§ 102(b) is universally understood to prohibit any copyright in facts").

⁵⁷ See *Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972, 978-979 (2d Cir. 1980) (facts and speculation regarding circumstances of destruction of "Hindenburg" dirigible).

⁵⁸ See *Rosemont Enterprises, Inc. v. Random House, Inc.*, 366 F.2d 303, 309-310 (2d Cir. 1966), *cert. denied* 385 U.S. 1009 (1967) (biography of Howard Hughes).

utility, and nonobviousness required for patent protection,⁵⁹ this tactic would make legal protection of ideas too easy⁶⁰ and would block, rather than promote, the progress of "Science and useful Arts."⁶¹

The second policy underlying the idea/expression dichotomy is that of free speech. Giving an author exclusive rights in the facts and ideas embodied in her work would impede the free flow of information that a free society requires and that the First Amendment protects.⁶² The dichotomy thus has a firm basis both in the structure of intellectual property law and in our nation's fundamental policy of free expression.

The values of freedom of speech and freedom to exchange information are also related to another fundamental requirement for copyright protection—the requirement of originality. Copyright protects only material that is original with the author.⁶³ No author creates or originates facts; instead, he or she just discovers and uses them as raw material for his or her original, creative expression. Since the facts themselves are not original with the author, copyright does not protect them but protects only the original form in which they are expressed.⁶⁴ This reasoning has particular force with respect to directories, databases, and other compilations, in which the raw facts are unprotectible and

⁵⁹ See § 2.03 *supra*.

⁶⁰ Furthermore, since this procedure could be applied to *any* idea, it would withdraw from the public domain such things as fundamental principles of science, which even patent law does not protect. See § 2.02[2] *supra*.

⁶¹ Copyright Clause, U.S. Const., Art. I, § 8, cl. 8. See, e.g.: *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 229-230, 84 S.Ct. 784, 11 L.Ed.2d 661 (1964) (strict observation and enforcement of patent standards promote public welfare by insuring that patent "monopoly" is granted only for genuine advances, and then only for a limited time); *Baker v. Selden*, 101 U.S. 99, 102-103, 104, 25 L.Ed. 841 (1880) (protection of useful methods under copyright would block progress in such fields as medicine, agriculture, graphics, and engineering).

⁶² See, e.g.:

Supreme Court: *Harper & Row, Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 556, 105 S.Ct. 2218, 85 L.Ed.2d 588 (1985), quoting with approval *Harper & Row, Publishers, Inc. v. Nation Enterprises*, 723 F.2d 195, 203 (2d Cir. 1983), *rev'd* 471 U.S. 539 (1985) (the idea/expression dichotomy "strike[s] a definitional balance between the First Amendment and the Copyright Act by permitting free communication of facts while still protecting an author's expression"); 471 U.S. at 582 (Brennan, J., dissenting) ("This limitation on copyright also ensures consonance with our most important First Amendment values").

Second Circuit: *Iowa State University Research Foundation, Inc. v. American Broadcasting Cos.*, 621 F.2d 57, 61 (2d Cir. 1980) ("The public interest in the free flow of information is assured by the law's refusal to recognize a valid copyright in facts") (*dictum*).

Ninth Circuit: *Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corp.*, 562 F.2d 1157, 1170 (9th Cir. 1977) (finding no special accommodation needed between copyright and First Amendment because "the idea-expression dichotomy already serves to accommodate the competing interests").

⁶³ See § 5.03[2] *infra*.

⁶⁴ See, e.g.:

Supreme Court: *Feist Publications, Inc. v. Rural Telephone Service Co.*, ___ U.S. ___, 111 S.Ct. 1282, 1288-1289, 113 L.Ed.2d 358 (1991) (no one may claim originality as to facts "because facts do not owe their origin to an act of authorship.... [T]he first person to find and report a particular fact has not created the fact; he or she has merely discovered its existence.... The same is true of all facts—scientific, historical, biographical, and news of the day").

Fifth Circuit: *Miller v. Universal City Studios, Inc.*, 650 F.2d 1365, 1368-1369 (5th Cir. 1981) (same in substance).

the only opportunity for original expression—and hence for copyright protection—lies in their selection and arrangement.⁶⁵

[c]—The "Levels of Abstraction" Test

Although firmly grounded in statutory authority and policy, the idea/expression dichotomy is not always simple to apply. Idea and expression are generally intertwined, and the boundary between them is not easy to locate. As Judge Learned Hand confessed, "Nobody has ever been able to fix that boundary, and nobody ever can."⁶⁶ Therefore courts decide where the boundary lies on a case-by-case basis.⁶⁷

The process of judgment by which courts apply the idea/expression dichotomy is known as the "levels of abstraction" test.⁶⁸ Two well-reasoned decisions by Judge Learned Hand illustrate this process. In one, the Second Circuit ruled that a motion picture infringed a copyrighted play, due to similarities in scene, character, incident, sequence, and plot, despite the fact that both works derived from the same celebrated real-life case, which had been the subject of two other works.⁶⁹ In the other, the Second Circuit had ruled that the motion picture "The Cohens and the Kellys" did *not* infringe the play "Abie's Irish Rose," because the only thing in common between the two works was the theme of conflicts between Irish and Jewish parents whose children marry; this theme, said the court, was an idea, not expression.⁷⁰

In the latter opinion, Judge Hand recommended comparing the similarities between the two works as a "series of abstractions" of increasing generality.⁷¹ If the similarities pass beyond the point of mere "ideas" into the realm of expression, there is infringement. Otherwise, there is no infringement because the accused work borrows only the plaintiff's ideas. Applying this test in the "Abie's Irish Rose" case, the Second Circuit found no infringement because the two works differed much in detail and had in common only the same general plot or theme.⁷²

While these seminal decisions compared dramatic works, the same process of judgment applies to any type of work, regardless of its form or medium of

⁶⁵ See *Feist Publications, Inc. v. Rural Telephone Service Co.*, ___ U.S. ___, 111 S.Ct. 1282, 1289, 1290, 113 L.Ed.2d 358 (1991). See generally, § 5.02[2] *infra*.

⁶⁶ *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930), *cert. denied* 282 U.S. 902-903 (1931).

⁶⁷ As Judge Hand advised, the decision must "inevitably be *ad hoc*." *Peter Pan Fabrics, Inc. v. Martin Weiner Corp.*, 274 F.2d 487, 489 (2d Cir. 1960).

⁶⁸ The phrase derives from the late Professor Nimmer. See 3 Nimmer and Nimmer, *Copyright* § 13.03[A] at 13-22.2—13-24 (1988). However, the test owes its origin to Judge Learned Hand. See *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930), *cert. denied* 282 U.S. 902-903 (1931). See also, *Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corp.*, 562 F.2d 1157, 1163 (9th Cir. 1977) ("No court or commentator ... has been able to improve upon Judge Learned Hand's famous 'abstractions test' articulated in *Nichols*...").

⁶⁹ *Sheldon v. Metro-Goldwyn Pictures Corp.*, 81 F.2d 49, 54-55 (2d Cir.), *cert. denied* 298 U.S. 669 (1936).

⁷⁰ *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 120, 122 (2d Cir. 1930), *cert. denied* 282 U.S. 902-903 (1931).

⁷¹ *Id.*, 45 F.2d at 121.

⁷² *Id.*, 45 F.2d at 121-122.

fixation. For example, abstract mathematical algorithms used in computer programs are "ideas" that cannot be protected by copyright.⁷³ Yet copying an algorithm may constitute copyright infringement if the copier duplicates too closely the form, structure, organization and plan of a computer program that implements it.⁷⁴ Determining whether or not there is infringement in such a case ultimately requires investigating a "series of abstractions" in the manner pioneered by Judge Hand.

If the similarities of structure and organization are great enough, at a level of detail fine enough, a court should have no trouble finding infringement. Indeed, a court should be able to find infringement even if, for example, the allegedly infringing computer program is written in a different computer language and uses different variable names than the program allegedly infringed.⁷⁵ The process of comparison should be the same as that used by Judge Learned Hand, with one difference: because the details of computer pro-

⁷³ An algorithm in its pure or abstract form is an "idea, procedure, process, system, method of operation, concept [or] principle" excluded from copyright protection under Section 102(b). Because an algorithm in this form is also ineligible for patent protection, see § 2.02[2][b] *supra*, trade secrecy may be the only way to protect it. See § 4.02[2] *supra*. Copyright, however, may provide some protection for a particular *implementation* (i.e., expression) of an algorithm in a computer program or computer system, because copyright protects against more than mere verbatim copying. Similarly, an algorithm may be eligible for patent protection in connection with a product or process that uses it. See 2.02[2][b] *supra*.

⁷⁴ See, e.g.:

Third Circuit: *Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc.*, 797 F.2d 1222, 1233, 1234, 1236, 1238, 1245-1246, 1248 (3d Cir. 1986), *cert. denied* 479 U.S. 1031 (1987) ("idea" of utilitarian work is its purpose or function and everything else is "expression;" therefore structure, sequence and organization of plaintiff's computer program are protected).

Sixth Circuit: *SAS Institute, Inc. v. S&H Computer Systems, Inc.*, 605 F. Supp. 816, 830-831 (M.D. Tenn. 1985) (defendant's computer program was unauthorized copy or derivative work of plaintiff's, although defendant had changed much, because copying of "organization and structural details" was pervasive).

The Third Circuit's proposed standard—that the idea behind a utilitarian work such as a computer program is its purpose or function, and everything else is protectible expression (see *Whelan supra*, 797 F.2d at 1236)—appears both too facile and too narrow. Mathematical formulae and algorithms used in a computer program are only means to achieve the program's purpose (solution of a particular mathematical or business problem), but they nevertheless are part of the program's "ideas," not part of its expression—at least as abstracted from the particular sequence of computational steps used to implement them. Similarly, accounting techniques used in business software for maintaining and reconciling a general ledger should be viewed as "ideas," not expression.

Yet despite the Third Circuit's application of an inappropriate test, the finding of infringement in *Whelan* appears correct, for in that case the defendant had copied more of the structure, sequence, and organization of the plaintiff's program than appeared necessary to use its algorithms and accounting techniques. See *Whelan, supra*, 797 F.2d at 1238-1239, 1242-1246, 1249.

⁷⁵ See, e.g.:

Third Circuit: *Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc.*, 797 F.2d 1222, 1226, 1233-1234, 1248 (3d Cir. 1986), *cert. denied* 479 U.S. 1031 (1987) (recasting program in new computer language did not avoid infringement).

Fifth Circuit: *Synercom Technology, Inc. v. University Computing Co.*, 462 F. Supp. 1003, 1013 n.5 (N.D. Tex. 1978) ("[I]t is as clear an infringement to translate a computer program from, for example, FORTRAN to ALGOL, as it is to translate a novel or play from English to French").

Eighth Circuit: *E.F. Johnson Co. v. Uniden Corp.*, 623 F. Supp. 1485, 1497-1498 (D. Minn. 1985) (finding infringement although programs were written in different microcode for two different microprocessors).

But see, *Q-Co Industries, Inc. v. Hoffman*, 625 F. Supp. 608, 613-615, 616 (S.D.N.Y. 1985) (refusing to enjoin use of allegedly infringing program written in another computer language for different computer where adaptation to that computer was technically difficult and required significantly new approach).

gramming are not as accessible to lay people as similarities in story line, comparison of the "series of abstractions" requires expert testimony.⁷⁶

[d]—Merger of Idea and Expression

Sometimes an idea is capable of expression only in a limited number of ways, so that the idea and its expression can be said to "merge." In that case, protecting one or all of the limited number of means of expression would grant a measure of exclusivity in the underlying idea, contrary to the rule that copyright does not protect ideas. In such cases, the dichotomy between idea and expression argues for less than full copyright protection.

Courts take two general approaches in such cases. Some deny copyright protection entirely, reasoning that legal protection for the expression would permit the alleged copyright owner to monopolize the idea. As one court put it, copyright protection would allow a plaintiff, "by copyrighting a mere handful of forms, [to] exhaust all possibilities of future use of the substance."⁷⁷ Applying this "all or nothing" approach, courts have refused to protect such things as input formats for computer programs,⁷⁸ jewel-encrusted pins made in the shape of a bee,⁷⁹ and a two-paragraph set of rules for a promotional sweepstakes,⁸⁰ while upholding protection for such things as standardized aptitude test questions,⁸¹ computer operating system software,⁸² and computer applications software.⁸³

Other courts, however, do not deny copyright protection entirely merely because an idea and its expression are closely related. Instead, these courts balance the nexus between the idea and the plaintiff's expression against the similarity of the allegedly infringing expression and impose a higher standard for infringement when a certain form of expression is incidental or indispensable to the underlying idea. In such cases, they require close or near-verbatim copying before finding infringement.

⁷⁶ See § 5.01[3] *infra*.

⁷⁷ *Morrissey v. Procter & Gamble Co.*, 379 F.2d 675, 678 (1st Cir. 1967).

⁷⁸ See *Synercom Technology, Inc. v. University Computing Co.*, 462 F. Supp. 1003, 1012-1014 (N.D. Tex. 1978) (holding alternatively that computer program input formats were "ideas," or that any expression they included was merged with their ideas).

⁷⁹ See *Herbert Rosenthal Jewelry Corp. v. Kalpakian*, 446 F.2d 738, 742 (9th cir. 1971) (finding idea of "bee" pin "inseparable" from expression). In this case, the Ninth Circuit relied on the classic rationale for the "all-or-nothing" approach: "When the 'idea' and its 'expression' are thus inseparable, copying the 'expression' will not be barred, since protecting the 'expression' in such circumstances would confer a monopoly of the 'idea' upon the copyright owner free of the conditions and limitations imposed by the patent law." 446 F.2d at 742.

⁸⁰ See *Morrissey v. Procter & Gamble Co.*, 379 F.2d 675, 676, 678-679 (1st Cir. 1967) (holding idea merged with expression and affirming summary judgment for defendant).

⁸¹ See *Educational Testing Services v. Katzman*, 793 F.2d 533, 539-540 (3d Cir. 1986) (holding test questions capable of expression in sufficient variety of ways to avoid merger doctrine).

⁸² See *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240, 1253 (3d Cir. 1983), *cert. dismissed* 464 U.S. 1033 (1984) (remanding for determination whether software could be expressed in alternative ways).

⁸³ See *Broderbund Software, Inc. v. Unison World, Inc.*, 648 F. Supp. 1127, 1134 (N.D. Cal. 1986) (existence of other program for same purpose refuted argument that idea could be expressed only in limited ways).

The Second Circuit—the foremost proponent of this approach—has applied it to such things as historiography⁸⁴ and legal forms.⁸⁵ The Ninth Circuit⁸⁶ has applied this approach to such things as video games⁸⁷ and encyclopedias of trivia.⁸⁸ A district court in the Ninth Circuit has applied this approach to computer software in microcode form.⁸⁹

Compared to the "all-or-nothing" approach, the "close copying" approach has three advantages. First, it recognizes that the nexus between idea and expression may have infinitely fine gradations. Very few ideas indeed admit of only a handful of alternative means of expression, and the "close copying" approach allows courts to exercise their judgment and vary the amount of permissible copying based on the indispensability of plaintiff's expression to the borrowed idea. Second, because the "close copying" approach provides a sliding scale for infringement, it gives courts the flexibility to strike an appropriate balance between the countervailing goals of encouraging broad dissemination of facts and ideas and promoting creativity by protecting expression. In contrast, the "all or nothing" approach forces courts to guess at an abstract and absolute threshold level of indispensability beyond which expression receives no protection at all. Finally, instead of making the merger of idea and expression a threshold issue of copyright protection, the "close copying" approach treats it as part of the issue of infringement.⁹⁰ There it meshes nicely with a detailed examination of the original and accused works

⁸⁴ See *Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972, 980 (2d Cir. 1980) (protecting historical and speculative account of Hindenburg dirigible disaster only against infringers who "bodily appropriate the expression").

⁸⁵ See *Continental Casualty Co. v. Beardsley*, 253 F.2d 702, 705-706, 707 (2d Cir.), cert. denied 358 U.S. 816 (1958) (holding in alternative that protection of legal forms does not extend to language "incidental" to use of underlying idea, or that forms were in public domain for lack of copyright notice).

⁸⁶ The Ninth Circuit seems to have forsaken its endorsement of the "all or nothing" approach that it took in *Herbert Rosenthal Jewelry Corp. v. Kalpakian*, 446 F.2d 738 (9th Cir. 1971), see N. 79 *supra*:

"When idea and expression coincide, there will be protection against nothing other than identical copying of the work. When other defendants made jeweled bees from the same molds as plaintiffs, they were held liable.... Therefore, the scope of copyright protection increases with the extent expression differs from the idea."

Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corp., 562 F.2d 1157, 1168 (9th Cir. 1977). (Citation omitted.)

⁸⁷ See *Data East USA, Inc. v. Epyx Inc.*, 862 F.2d 204, 209 (9th Cir. 1988) (form of "karate match" video game necessarily follows from rules of karate and computer constraints and is therefore protected only against identical copying); *Frybarger v. IBM Corp.*, 812 F.2d 525, 530 (9th Cir. 1987) (indispensable expression in video game, "based on the technical requirements of the videogame [*sic*] medium, may be protected only against virtually identical copying").

⁸⁸ See *Worth v. Selchow & Righter Co.*, 827 F.2d 569, 573 (9th Cir. 1987), cert. denied 485 U.S. 977 (1987), quoting *Frybarger v. IBM Corp.*, 812 F.2d 525, 530 (9th Cir. 1987) (Emphasis in original.) ("Trivial Pursuit" game did not infringe pre-existing trivia encyclopedia because facts are not protected, arrangement of encyclopedia was not copied, and "verbatim repetition of certain words in order to use the nonprotectible facts ... constitutes 'mere indispensable expression' of particular facts or ideas").

⁸⁹ See *NEC Corp. v. Intel Corp.*, 10 U.S.P.Q.2d (BNA) 1177, 1188-1189 (N.D. Cal. 1989) (microcode was protected only against "virtually identical copying" where expression was constrained by functionality and hardware).

⁹⁰ See *id.*, 10 U.S.P.Q.2d (BNA) at 1179 (claim that microcode can be expressed in only a limited number of ways goes to issue of infringement, not copyrightability).

and their various "levels of abstraction," which courts in most cases make anyway in order to determine whether copying has occurred.⁹¹ Thus the "close copying" approach encourages courts to grapple with the real issue: whether the alleged infringer took more protectible expression than was necessary to convey the borrowed fact or idea.⁹²

[3]—Assessing Infringement: Access and Substantial Similarity

Infringers seldom admit to copying, and plaintiffs in copyright cases seldom have direct evidence of it. Accordingly, most copyright cases rely on circumstantial evidence of copying. Over the years, the courts have devised a two-part test for this sort of circumstantial evidence. The plaintiff must demonstrate (1) that the defendant had access to the copyrighted work⁹³ and (2) that the accused and copyrighted works are substantially similar.⁹⁴ The two parts of the test are interrelated, but courts disagree whether sufficient proof of striking similarity by itself permits an inference of copying without any proof of access at all.⁹⁵

⁹¹ See § 5.01[3] *infra*.

⁹² Although this formulation helps focus the issue, it does not necessarily make it easier to resolve. In an important fair use decision, the Supreme Court divided six-three in determining whether or not 300 words taken verbatim from Gerald Ford's 200,000-word unpublished autobiography were necessary to convey the underlying facts and ideas. See *Harper & Row, Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 563-564, 105 S.Ct. 2218, 85 L.Ed.2d 588 (1985) (borrowed expression "exceed[ed] that necessary to disseminate the facts"); 471 U.S. at 600-601 (Brennan, J., dissenting) (disagreeing that borrowed expression was "clearly excessive or inappropriate to ... news reporting purpose").

⁹³ See *Selle v. Gibb*, 741 F.2d 896, 900-901 (7th Cir. 1984) (affirming judgement for defendant for failure to establish access). Access itself may be inferred from circumstantial evidence, such as wide distribution of the copyrighted work. See *ABKCO Music, Inc. v. Harrison's Music, Ltd.*, 722 F.2d 988, 998 (2d Cir. 1983) (*dictum*: even without direct evidence of access, wide popularity of plaintiff's song would permit inference of access). Access may also be inferred from contact with third parties shown to have access. See *Gaste v. Kaiserman*, 863 F.2d 1061, 1066-1067 (2d Cir. 1988) (jury reasonably could have concluded that infringer had access in 1973 to copyrighted song through foreign music subpublisher, who had received copy in 1950).

⁹⁴ See, e.g.:

Second Circuit: *Gaste v. Kaiserman*, 863 F.2d 1061, 1066-1069 (2d Cir. 1988) (upholding verdict of infringement); *Steinberg v. Columbia Pictures Industries, Inc.*, 663 F. Supp. 706, 711, 712 (S.D.N.Y. 1987), quoting *Ideal Toy Corp. v. Fab-Lu Ltd.*, 360 F.2d 1021, 1022 (2d Cir. 1966) ("the definition of 'substantial similarity' in this circuit is 'whether an average lay observer would recognize the alleged copy as having been appropriated from the copyrighted work'").

Ninth Circuit: *Data East USA, Inc. v. Epyx Inc.*, 862 F.2d 204, 206-210 (9th Cir. 1988) (reversing district court's finding of infringement due to merger of idea and expression).

See generally, 3 Nimmer and Nimmer, *Copyright* § 13.02 (access), § 13.03 (substantial similarity).

⁹⁵ *Compare*: *Gaste v. Kaiserman*, 863 F.2d 1061, 1067-1068 (2d Cir. 1988) (reaffirming Second Circuit rule that striking similarity permits inference of copying without proof of access, and approving jury instruction to that effect); *Steinberg v. Columbia Pictures Industries, Inc.*, 663 F. Supp. 706, 714 (S.D.N.Y. 1987) ("somewhat lesser degree" of substantial similarity is required where access is conceded).

With:

Fifth Circuit: *Ferguson v. National Broadcasting Co.*, 584 F.2d 111, 113 (5th Cir. 1978) (rejecting finding of access "based on speculation or conjecture," requiring more than "bare possibility" of access to support liability, and affirming summary judgment for defendant).

Seventh Circuit: *Selle v. Gibb*, 741 F.2d 896, 901-903 (7th Cir. 1984) (alternative holding) (even where there is striking similarity, plaintiff must provide evidence to support a "reasonable inference" of access and cannot rely on speculation or conjecture) (alternative holding).

Assessing substantial similarity involves a considerable measure of judgment. To aid in making this judgment, courts have proposed various procedural devices, none of which appears to have achieved universal acceptance.⁹⁶ Regardless of the procedural devices they employ, however, most courts recognize that a determination of substantial similarity necessarily involves some attempt to distinguish idea and fact from expression, because similarity of ideas and facts alone cannot prove infringement.⁹⁷ This suggests that, whatever procedure courts use, analysis of the levels of abstraction and separation of idea and fact from expression are best accomplished together, in the course of evaluating substantial similarity.⁹⁸ When a jury decides the issues of infringement, however, analytical separation of the issues may require screening by the judge or limiting instructions.

⁹⁶ In a 1946 case involving music, the Second Circuit adopted the following two-part test: (1) a threshold test involving analytic dissection and expert testimony "to determine whether the similarities are sufficient to prove copying," followed by (2) an "ordinary lay hearer" test to determine, without the aid of dissection or expert testimony, whether there had been "illicit copying." *Arnstein v. Porter*, 154 F.2d 464, 468 (2d Cir. 1946). In 1977, the Ninth Circuit adopted a modified version of this two-part test, consisting of: (1) an "extrinsic" test, with the aid of analytic dissection and expert testimony, to compare the similarity of ideas between the plaintiff's and allegedly infringing works and thereby to determine whether there was copying at all, followed by (2) an "intrinsic" test "depending on the response of the ordinary reasonable person," and excluding analytic dissection and expert testimony, to determine whether there was infringement. *Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corp.*, 562 F.2d 1157, 1164 (9th Cir. 1977) (finding that television commercial infringed children's television show).

Neither circuit, however, has adhered religiously to its two-part test. See, e.g.:

Second Circuit: *Gaste v. Kaiserman*, 863 F.2d 1061, 1067-1069 (2d Cir. 1988) (upholding finding of striking similarity of musical works based primarily on testimony of plaintiff's expert).

Ninth Circuit: *Worth v. Selchow & Righter Co.*, 827 F.2d 569, 572, 574 (9th Cir.), *cert. denied* 485 U.S. 977 (1987) (upholding and apparently approving failure to apply "extrinsic" test where court below found absence of substantial similarity of expression without considering similarity of ideas).

Other circuits have taken different approaches. The Third Circuit has rejected both the Second Circuit's two-part test articulated in *Arnstein, supra*, and the "ordinary observer" test in cases dealing with complex materials such as computer programs, because lay people cannot appreciate the similarities and differences in those materials without the aid of expert testimony. See *Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc.*, 797 F.2d 1222, 1232-1233 (3d Cir. 1986), *cert. denied* 479 U.S. 1031 (1987). The Seventh Circuit has used a single "ordinary observer" test, without dissection or expert testimony, to compare video games. See *Atari, Inc. v. North American Philips Consumer Electronics Corp.*, 672 F.2d 607, 614, 618-620 & n.12 (7th Cir.), *cert. denied* 459 U.S. 880 (1982). And a district court in the Eighth Circuit has opined that "application of the *Arnstein/Krofft* 'bifurcated' approach to substantial similarity is problematical in a computer software context." *E.F. Johnson Co. v. Uniden Corp.*, 623 F. Supp. 1485, 1501 n.16 (D. Minn. 1985).

⁹⁷ See, e.g.:

Second Circuit: *Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972, 979-980 (2d Cir. 1980) (affirming summary judgment for defendant because alleged similarities consisted of unprotected facts and ideas, and copying was not verbatim).

Ninth Circuit: *Worth v. Selchow & Righter Co.*, 827 F.2d 569, 573 & n. 6 (9th Cir.), *cert. denied* 485 U.S. 977 (1987) (finding no substantial similarity, although defendant copied facts from about one-third of entries in plaintiff's trivia encyclopedias, because neither arrangement of items nor entire list was copied); *Frybarger v. IBM Corp.*, 812 F.2d 525, 530 (9th Cir. 1987) (finding no infringement because "indispensable expression" was dictated by "technical requirements of the videogame medium" and expression was not "virtually identical"); *Landsberg v. Scrabble Crossword Game Players, Inc.*, 736 F.2d 485, 488-489 (9th Cir. 1984) (finding no infringement because accused work did not use similar expression in describing borrowed ideas of "Scrabble" game strategy).

⁹⁸ See *NEC Corp. v. Intel Corp.*, 10 U.S.P.Q.2d (BNA) 1177, 1179, 1188-1189 (N.D. Cal. 1989) (considering number of ways of expressing functional features of microprocessor's microcode as part of substantial similarity analysis, rather than as threshold issue of copy-rightability).