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Special Case Note Follow-Up--Part II: Brief Amicus Curiae

Howard C. Anawalt
Carol A. Kunze

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Part Two: Brief Amicus Curiae**

Howard C. Anawalt†

Carol A. Kunze‡

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* See generally, Jason A. Whong and Andrew T.S. Lee, Lotus v. Borland: Defining the Limits of Software Copyright Protection, 12 SANTA CLARA COMPUTER & HIGH TECH. L.J. 207.

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† A.B., Stanford University; J.D., University of California at Berkeley (Boalt Hall). Professor of Law, Director of the High Tech Law Program, University of Santa Clara School of Law.


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I. SUMMARY OF ARGUMENT

Section 102(b) of the Copyright Act, 17 U.S.C. § 102(b), refers to an integrated domain of matter, including ideas and utilitarian or functional applications of those ideas, rather than a list of discrete items barred from copyright protection. The menu command hierarchy of Lotus 1-2-3 constitutes a function which falls within the latter portion of this integrated domain, and it must therefore be denied copyright protection.

I. INTRODUCTION

This friend of the court brief is submitted to support the decision of the First Circuit Court of Appeals which correctly excluded a computer program command hierarchy from copyright protection pursuant to Section 102(b) of the Copyright Act, 17 U.S.C. § 102(b).

The menu command hierarchy in this case represents the set and sequence of commands necessary to make the particular program perform tasks that its human operator has set out for it.1

II. SECTION 102(B) EXCLUDES IDEAS AND PREDOMINANTLY UTILITARIAN ELEMENTS FROM COPYRIGHT PROTECTION

Section 102(b) states its exclusion from copyright in clear and direct terms: copyright protection does not extend to ideas, procedures, processes, systems, methods of operation, concepts, principles, or discoveries.

Section 102(b) denotes two related types of matter, combined into an integrated realm which is excluded from copyright, rather than a listing of discrete topics of non-copyrightable subject matter. “Procedure,” “process,” “system,” and “method” are synonyms or convey similar meanings;2 “discovery” conveys the idea of obtaining “knowledge of, as through study.”3 All four words are also used to mean patentable subject matter.4 While dictionaries provide different specific meanings to “idea,” “concept,” and “principle,” all three words

1. “Borland did not copy any of Lotus’s underlying computer code; it copied only the words and structure of Lotus’s menu command hierarchy.” Lotus Dev. Corp. v. Borland Int’l, Inc., 49 F.3d 807, 810 (1st Cir. 1995).
2. Synonyms for “process” include “method” and “procedure”; for “method” include “procedure,” “process,” “system.” MARC McCUTCHEON, ROGET’S SUPERTHESAURUS 321, 403 (1995) [hereinafter ROGET’S].
3. THE AMERICAN HERITAGE COLLEGE DICTIONARY 396 (3rd ed. 1993) [hereinafter DICTIONARY].
4. See infra text accompanying notes 11 and 12.
contain a deep common thread in that they denote thoughts at a high level of abstraction or generality.\(^5\)

Section 102(b) is an instance where the words support each other. "It is a familiar principle of statutory construction that words grouped in a list should be given related meaning."\(^6\)

The legislative history of Section 102 confirms that Congress intended to exclude a general sphere of matters. In explaining the section, the House Report stated:

Copyright does not preclude others from using the ideas or information revealed by the author’s work. It pertains to the literary, musical, graphic, or artistic form in which the author expressed intellectual concepts. . . .

Some concern has been expressed lest copyright in computer programs should extend protection to the methodology or processes adopted by the programmer, rather than merely to the "writing" expressing his ideas. Section 102(b) is intended, among other things, to make clear that the expression adopted by the programmer is the copyrightable element in a computer program, and that the actual processes or methods embodied in the program are not within the scope of the copyright law.

Section 102(b) in no way enlarges or contracts the scope of copyright protection under the present law. Its purpose is to restate, in the context of the new single Federal system of copyright, that the basic dichotomy between expression and idea remains unchanged.\(^7\)

The quoted paragraphs point to a general concept that separates protectable from unprotectable matters. Protectable matter is the form in which one has "expressed intellectual concepts." On the other hand, ideas and strictly utilitarian applications of those ideas must remain outside the realm of protection.

The report also emphasizes that while computer programs may obtain copyright protection, they must remain subject to the same line of exclusion as other works. Congress addressed the concern that computer program copyrights would extend protection to the program-

\(^{5}\) Indeed, Roget’s lists “concept” as a synonym for “idea.” Roget’s, supra note 2, at 261. The word “concept” may denote or connote a certain tinge or variety of idea: “a general idea derived or inferred from specific instances or occurrences.” Dictionary, supra note 3, at 288. A Ninth Circuit case notes “concept” and “idea” are synonyms in Section 102(b). Olson v. Nat’l Broadcasting Co., Inc., 855 F.2d 1446, 1451 n.4 (9th Cir. 1988).


mer's methodology or processes by reaffirming the rejection of protecting ideas in themselves. Because a computer program functions, in addition to representing expression, it presents more of a risk that its utilitarian ideas, its "methodologies or processes," might gain protection. Section 102(b) assures that this will not happen.

A. Section 102(b) Excludes Ideas from Copyright Protection

The primary concept of Section 102(b) is that broad ideas, concepts and principles can not gain protection. This concept is firmly established in the famous Nichols case. Ideas in themselves may not be copyrighted, because they appropriate far more than a particular expression. The ideas "love" and "freedom" are amongst the most expressive of human concepts. One can express these ideas in a huge number of different ways, yet the core ideas themselves cannot be held by copyright. Similarly, the general idea of organizing commands in a graphical menu is not protectable.

B. Section 102(b) Excludes Utilitarian Elements from Copyright Protection

A second aspect of Section 102(b) combines with the norm excluding ideas. This second strand excludes strictly utilitarian or functioning applications of ideas that are properly the subject of patent law. Four of the words used in Section 102(b) specifically relate to matters that may be the subject of patents. Sections 100(b) and 101 of the Patent Act, 35 U.S.C. §§ 100(b) & 101, specifically include "processes" and "methods." Section 101(a) of the Patent Act also

8. The species of copyright protection that has evolved since Apple Computer, Inc. v. Franklin Computer Corp., 714 F. 2d 1240 (3d Cir. 1983), cert. dismissed, 464 U.S. 1033 (1984), represents a kind of "technological copyright" in that the expression protected actually becomes implemented in governing the physical processes of a machine. In computer programming the word "function" has a special meaning. The sentence in the body could also be phrased: "Because a computer program directs how a computer operates, in addition to representing expression, it presents more of a risk that its utilitarian ideas."

9. Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930) ("[T]here is a point . . . where they are no longer protected, since otherwise the playwright could prevent the use of his 'ideas,' to which, apart from their expression, his property is never extended."). See also Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 344-5 (1991) ("The most fundamental axiom of copyright law is that '[n]o author may copyright his ideas or the facts he narrates.'") (citation omitted).

10. The utilitarian exclusion ties closely to the norm excluding ideas. If one separates the "utility" strand from the "abstraction/idea" strand in the analysis, the line of demarcation ought not be too sharply drawn. Section 102(b) excludes protection of abstraction and, especially, those matters that are utilitarian abstractions. A definition of method denotes a general means of doing something: "A means or manner of procedure, esp. a regular and systematic way of accomplishing something." Dictionary, supra note 3, at 857.
uses “discovery” as a synonym for “invention.” Furthermore, a “concept” once reduced to practice and applied in a concrete way constitutes patentable subject matter. As stated by the Federal Circuit: “Thus, patent and copyright laws protect distinct aspects of a computer program. See Baker v. Selden, 101 U.S. 99, 103 (1879). Title 35 protects the process or method; Title 17 protects the expression of that process or method.”

The legislative history directly affirms the distinction between the domain of patent law and that of copyright. Patent covers utility. Copyright covers nonutilitarian or nonfunctional expressive matters, with the notable exception of the “technological copyrights” presented by computer programs.

The Copyright Act rejects protection of pure utility or function most clearly with regard to pictorial, graphic, and sculptural works. These can receive protection under the Act, but only to the extent that one excludes “their mechanical or utilitarian aspects.” The design of a “useful article,” defined as an article “having an intrinsic utilitarian function,” can be considered a protectable “pictorial, graphic, or sculptural work” only when its pictorial, etc. features “can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the work.”

The House Report indicates that protection was assured for pictorial, graphic, and sculptural works embodied in useful articles because Congress wished to continue protection for works of “applied art” which had previously been accorded by the decision of the Supreme Court in Mazer v. Stein, 347 U.S. 201 (1954). The report stated that in adopting the definition of “useful article” it sought “to draw as clear a

12. The concept must be reduced to practice so that when described in the patent specification it will “enable any person skilled in the art” to practice it. 35 U.S.C. § 112. Priority in patent claims goes to the one who pursues the process from conception to reduction to practice with due diligence. 35 U.S.C. § 102(g).
15. With the exception of design patents. 35 U.S.C. § 171.
18. Id.
line as possible between copyrightable works of applied art and un-
copyrightable works of industrial design."19

Under the foregoing analysis, a menu command hierarchy constitu-
tes a strictly functional or utilitarian element that must be denied
protection under Section 102(b).

III. COPYRIGHT DOES NOT EXTEND TO THOSE ASPECTS OF A
COMPUTER INTERFACE WHICH CONSTITUTE THE COMMAND
FUNCTION

According to both the District Court and the Court of Appeals,
"the Lotus developers made some expressive choices in choosing and
arranging the Lotus command terms."20 To illustrate this fact the Dis-
trict Court stated: "The ‘Copy’ command could be called ‘Clone,’
‘Ditto,’ ‘Duplicate,’ ‘Imitate,’ ‘Mimic,’ ‘Replicate,’ and ‘Reproduce,’
among others."21 The Court of Appeals ruled that nonetheless these
particular choices became part of an entire structure which constituted
a ‘method of operation.’"22 This conclusion is correct in that it has
determined that the hierarchy falls within Section 102(b). The com-
mand hierarchy’s sole purpose is to channel the precise human steps
necessary to get the program to do its job. In order to use a computer
program, a user must provide the commands that trigger operations
controlled by the computer program itself.23

The Lotus hierarchy, including the names of individual com-
mands, constitutes a pure command function.24 In each case the key

20. The Court of Appeals noted: "Under the district court’s reasoning, Lotus’s decision to
employ hierarchically arranged command terms to operate its program could not foreclose its
competitors from also employing hierarchically arranged command terms to operate their pro-
grams, but it did foreclose them from employing the specific command terms and arrangement
that Lotus had used." 49 F.3d at 816. The Court of Appeals accepted "the district court’s find-
ing that Lotus developers made some expressive choices in choosing and arranging" the com-
mand terms. Id.
pressive identification of commands might well be protected. For example, "quit" might be
expressed by “watermelon,” “Kamo” (duck-Japanese), or an image of one punching out at a time
clock. It appears that no such originality of expression is present in this case.
of Borland’s Quattro Pro program at issue is the “Key Reader,” which allows the program to
interpret and perform some Lotus 1-2-3 macros. Id. at 811. In order to do so, the Key Reader
file contains a copy of the Lotus 1-2-3 menu command hierarchy. Id. at 812.
23. The Court of Appeals likened the commands to buttons used to control a VCR. Id. at
817. The authors of this brief have not examined the record, but rely on the construction of facts
set forth in the published opinions for all factual observations.
24. The definition of “command” comports with this observation, but the argument is not a
semantic one. Command means “to direct with authority” or in computer science, “a signal that
initiates an operation defined by an instruction.” Dictionary, supra note 3, at 279.
sequences input within the framework of the menu command hierarchy activate some response in the computer causing it to perform an operation. The menu command hierarchy, including its specific commands, is merely the tool used to cause the program to operate. Once utilized by a user to construct a macro (e.g., a series of operations which can be executed through a single keystroke), its use is critical to the operation of the macro. The command hierarchy, including the command terms, thus constitutes pure function. As such, the hierarchy must be excluded from copyright by Section 102(b).

Examples from copyright and other branches of law that further recognize that words sometimes express ideas, while at other times they constitute action or serve a function, support the division between words as expression of ideas and the functional use of words. When this is the case, the law treats the words as something other than mere expression.

Rules of a game have been held to be not protectable by copyright. The particular way in which the rules are described or expressed will be narrowly protected, however. The menu command hierarchy presents a similar case. Expression, if any, found within the command hierarchy should only be protected to the extent of expressive value independent of the command function.

In other areas, when function overtakes expression, the law recognizes that the “expressive” or communicative aspect must be treated differently than when pure expression is involved. For instance, the words “pay to the order of” endorsed on the back of a check function to transfer the rights in the check to another. In common experience one acknowledges when function overtakes expression by responding

26. Id.
27. Intellectual property law has wrestled with the function/expression demarcation in a variety of other areas. We advert to some in this footnote. In Sega Enters. Ltd. v. Accolade, Inc., 977 F. 2d 1510 (9th Cir. 1992) the Court rejected a trademark claim where the display of the mark “S-E-G-A” became a functional aspect of operation of the game itself, stating, that a “trademark owner may not enjoy a monopoly over the functional use of the mark.” Id. at 1531. The trial court in Computer Assocs. Int’l, Inc. v. Altai, Inc., 775 F. Supp. 544, 559-60 (E.D.N.Y. 1991), aff’d in part, 982 F.2d 693 (2d Cir. 1992), emphasized the behavioral aspect of a computer program in distinguishing between the static structure, sequence, and organization of the computer program, represented by the program’s copyrighted text, and the dynamic structure represented by the program’s behavior. The court noted there was no relationship between the structure of the text (the source and object codes) and the sequence of operations in a program, which are behavior. Finally, the court stated the program’s behavioral aspect fell within the statutory terms of “process,” “system,” and “method of operation” in Section 102(b). The static versus dynamic structure distinction was referred to approvingly by the Second Circuit in affirming the case. Id. at 706.
28. U.C.C. § 3-110(1).
with action rather than words. Giving the military command of “fire” to a line of armed soldiers acts as the event which triggers the discharge of weapons. In any other situation in which the imperative voice is used, the anticipated response is action rather than verbal expression.

Lotus’s organization of command terms into the menu command hierarchy, may contain expression, but it also serves a utilitarian role, it commands the program to perform an operation.

IV. Conclusion

Section 102(b) requires that a computer menu command hierarchy be denied copyright protection. Such a hierarchy as used operates as a pure command function. Only if the expressive aspect can be separated from the function of command can that separated aspect alone be protected by copyright. The menu hierarchy in this case should accordingly be denied copyright protection.

29. Some words are so imbued with action that they are themselves treated as conduct. The classic case in First Amendment law is the treatment of “fighting words.” These are “personally abusive epithets which, when addressed to the ordinary citizen, are, as a matter of common knowledge, inherently likely to provoke violent reaction.” Cohen v. California, 403 U.S. 15, 20 (1971). See also R.A.V. v. City of St. Paul, 505 U.S. 377, 381 (1992).