

BOOK REVIEWS

SOFTWARE PROTECTION

By G. Gervaise Davis III

Published by Van Nostrand Reinhold Company, New York, 1985

Pp. xvii, 372; \$44.95; *and*

LEGAL PROTECTION OF COMPUTER PROGRAMS AND DATA

By Christopher J. Millard

Published by The Carswell Company, Toronto, 1985

Pp. xxvi, 239; \$45.00.

Reviewed By LOIS W. ABRAHAM †

It is hard to advise the practitioner to "buy American" after comparing *Software Protection* by G. Gervaise Davis III, a California based attorney and frequent contributor to computer law publications, with *Legal Protection of Computer Programs and Data* by Christopher J. Millard, a British solicitor practicing and lecturing in the areas of software and data protection.

Davis is not modest in his ambitions for *Software Protection*. Its purpose, he says, is to give "both practical and legal assistance to those persons in the industry concerned with software protection — whether they are software developers, software publishers, industry executives, or lawyers working in the software industry."¹ Judged by his own expansive goal, Davis falls short. Perhaps as a result of his empathy with the software professional and his sensitivity to that portion of his intended audience, Davis sounds warnings — the right warnings — but does not expand his ideas for the legal reader. Lawyers working in the software industry can more efficiently understand the law from other sources.

Millard, on the other hand, writes unambiguously for the lawyer. His book is a tightly organized and well-documented analysis of the success with which common law jurisdictions have "balance[ed] the competing interests of creators, compilers, controllers, and consumers of software and data."² Recognizing its audience, the book contains an extensive table of cases and statutes, abundant footnotes and a detailed index.³

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1. G. DAVIS, *SOFTWARE PROTECTION* vi (1985).

2. C. MILLARD, *LEGAL PROTECTION OF COMPUTER PROGRAMS AND DATA* iii (1985).

Addressing their different audiences, both Millard and Davis evaluate the systems in place for the protection of software (or at least those in place in 1985). The common subject matter of the books is extensive: each discusses copyright, patent, and trade secret protections for computer programs. Davis also includes sections on trademark coverage, tax issues, and export controls as well as "how-to" chapters dealing with the nuts and bolts of applying for registrations, drafting limited warranties, and selecting a competent software attorney. Conversely, Millard includes several sections on computer crime, the regulation of transborder data flows, and data protection and the right to privacy. Millard's text contains extensive analysis of British and Canadian law, as well as that of the United States. Despite their common subject matter, Davis and Millard employ very different approaches in their books, as is illustrated by their respective treatment of video game copyright protection.

The early video game cases can provide considerable insight to the development of copyright protection for computer programs. However, Davis substantially ignores their legal substance, only briefly discussing a few of the important cases. Instead, he feels constrained to describe video games in excruciating and extraneous detail.⁴ The remaining bulk of Davis' video game chapter deals with the practical problems associated with registering a video game (and includes sample registration forms). Davis' summary of the video game chapter reaffirms that it is entirely directed to owners and creators of video games and that he has, at least temporarily, forgotten the portion of his proposed audience that practices law.⁵

Millard mercifully foregoes any explanation of basic video game strategy. Instead, he provides a concise but thoughtful discussion of the leading cases, extracting the elements which became the precedents for many of the decisions in later computer program cases. For example,

3. Davis' index is useful, but he employs a bibliography rather than a table of cases and statutes so that, while browsing is encouraged, direct research on a particular issue is not.

4. The following quotation is an apt example:

Depending on the game and its rules, the player guides an airplane, rocket, or spaceship through various battlegrounds or hostile territory. The objective is to rack up the highest possible number of points in a given time, in a game that usually gets harder and harder as the time passes and as the points add up. During the play, strange sounds, flashes, and color changes occur with increasing frequency. The famous PAC-MAN® game involves maneuvering odd little colored characters through a maze—gobbling up "power pills," and avoiding hazards in the form of monsters, rocks, and other items—with the objective of getting the most points by avoiding errors and by the cleverest manipulation of the characters. The scores are displayed in flashing lights on the screen.

G. DAVIS, *supra* note 1, at 105.

5. Nevertheless, Davis' book is a good source of information for the industry professional. His experience gives him excellent credentials to warn where the traps are, and he is generous in sharing his practical knowledge.

Millard's in-depth analysis of *Midway Mfg. Co. v. Dirkschneider*,⁶ *Atari, Inc. v. Amusement World, Inc.*,⁷ *Stern Elec., Inc. v. Kaufman*,⁸ *Williams Elec., Inc. v. Artic Int'l, Inc.*,⁹ *Midway Mfg. Co. v. Artic Int'l, Inc.*,¹⁰ and *Midway Mfg. Co. v. Strohon*¹¹ led him to conclude that both the object and source codes of a software program are protected under copyright law.¹² Davis' computer entrepreneur would likely have little patience with Millard's analysis, but the litigator seeking familiarity with this area of the law, short of collecting and reading all the cases, will benefit from Millard's approach.

The evaluations of Davis and Millard are also surprisingly different on a more philosophical level. Davis' fundamental assumption is that present legal theories are not adequate to protect software. We must "somehow blunder through the next years of uncertainty"¹³ and see where they will take us. Thus, Davis seems somewhat tentative about issues which were substantially resolved in 1984, such as what forms of computer programs are protected, and is rather pessimistic about the outcome of issues yet to be decided.¹⁴

Millard proceeds from the base that, while the mechanisms for protection are not perfect, they are working better than we had any reason to expect. While both authors acknowledge that a guiding principle in the application of copyright law to computer programs is that "regardless of how 'hard' a form they are fixed in, all programs can reasonably be viewed as 'writings,'"¹⁵ Millard uses this principle to demystify the line between those elements of the computer system which can be protected by copyright law and those which cannot. For instance, although Millard characterizes the computer software cases arising under the 1909 Copyright Act as a "[l]egacy of [c]onfusion,"¹⁶ he describes a path out of that confusion through pithy discussions of the cases and statutes that followed.¹⁷

6. 543 F. Supp. 466 (D. Neb. 1981).

7. 547 F. Supp. 222 (D. Md. 1981).

8. 523 F. Supp. 635 (E.D.N.Y. 1981), *aff'd*, 669 F.2d 852 (2d Cir. 1982).

9. 685 F.2d 870 (3d Cir. 1982).

10. 547 F. Supp. 999 (N.D. Ill. 1982), *aff'd*, 704 F.2d 1009 (7th Cir. 1983), *cert. denied*, 464 U.S. 823 (1983).

11. 564 F. Supp. 741 (N.D. Ill. 1983).

12. C. MILLARD, *supra* note 2, at 46-47.

13. G. DAVIS, *supra* note 1, at 141.

14. *Id.*

15. C. MILLARD, *supra* note 2, at 53. See also G. DAVIS, *supra* note 1, at 59.

16. C. MILLARD, *supra* note 2, at 36 (discussion of *Synercom Technology, Inc. v. Univ. Computing Co.*, 462 F. Supp. 1003 (N.D. Tex. 1978) and *Data Cash Systems, Inc. v. JS & A Group, Inc.*, 480 F. Supp. 1063 (N.D. Ill. 1979), *aff'd on other grounds*, 628 F.2d 1038 (7th Cir. 1980)).

17. *Id.* at 39-59.

Both books (as well as this review) share a near-fatal and unavoidable flaw. In this fast moving legal area, what was *au courant* at the end of 1984 is old hat by 1986. Easy questions about the applicability of the 1976 Act were answered by 1984. The broad scope of copyright protection for computer programs inherent in the statutory language was confirmed by the cases.¹⁸ It is the second generation questions that now concern entrepreneurs and attorneys alike: how will the courts apply traditional copyright doctrines such as "substantial similarity" and "the idea/expression dichotomy" to computer software?

We are learning fast. No understanding of the areas preliminarily explored by Davis and Millard can be complete without consideration of (at least) *SAS Institute, Inc. v. S & H Computer Systems, Inc.*,¹⁹ *Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc.*,²⁰ *E.F. Johnson Co. v. Uniden Corp. of America*,²¹ *Q-Co Ind., Inc. v. Hoffman*,²² and *Kramer Mfg. Co. v. Andrews*.²³ While virtually all of the pre-1985 cases involved literal copies of computer programs, only one of these more recent cases, *Kramer*, dealt with slavish copying. In each of the other cases, the courts attacked head-on the kind of less-than-literal copying more frequently encountered in literary works.

One of the most interesting and important developments in the recent cases has been the attempt by most defendants to pigeonhole computer programs as "factual works" so that "similarity of expression may have to amount to verbatim reproduction or very close paraphrasing before a factual work will be deemed infringed."²⁴ The practical consequence of classifying computer programs as factual works à la *Landsberg* is the application of a *de facto* presumption that idea and expression have all but merged, leaving very little room for copyright protection. The test, then, for determining infringement announced by the Third Circuit in *Apple v. Franklin*²⁵ would likely be superfluous, if not

18. *Tandy Corp. v. Personal Micro Computers, Inc.*, 524 F. Supp. 171 (N.D. Cal. 1981); *GCA Corp. v. Chance*, 217 U.S.P.Q. 718 (N.D. Cal. 1982); *Williams Elec., Inc. v. Artic Int'l Inc.*, 685 F.2d 870 (3d Cir. 1982); *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240 (3d Cir. 1983), *cert. denied*, 464 U.S. 1033 (1984); *Apple Computer, Inc. v. Formula Int'l Inc.*, 562 F. Supp. 775 (C.D. Cal. 1983), *aff'd*, 725 F.2d 521 (9th Cir. 1984).

19. 605 F. Supp. 816 (M.D. Tenn. 1985).

20. 609 F. Supp. 1307 (E.D. Pa. 1985), *aff'd*, 797 F.2d 1222 (3d Cir. 1986), *petition for cert. filed*, (U.S. Oct. 23, 1986).

21. 623 F. Supp. 1485 (D. Minn. 1985).

22. 625 F. Supp. 608 (S.D.N.Y. 1985).

23. 783 F.2d 421 (4th Cir. 1986).

24. *Landsberg v. Scrabble Crossword Game Players, Inc.*, 736 F.2d 485, 488 (9th Cir. 1984), *cert. denied*, 469 U.S. 1037 (1984).

25. "If other programs can be written or created which perform the same function as an Apple's operating system program, then that program is an expression of the idea and hence copyrightable." 714 F.2d at 1253.

irrelevant. Even if the evidence established that there were numerous ways to write a particular program, close to literal copying would be necessary to amount to infringement.

The courts have avoided such an inflexible characterization and have instead played variations on the *Apple v. Franklin* idea/expression analysis, trying to determine whether there may be various expressions of the idea of a computer program. Thus, in *SAS Institute*, the court found that "[e]ven in the case of simple statistical calculations, there is room for variation, such as the order in which arithmetic operations are performed."²⁶ Similarly, in *Uniden* the court held that since virtually all "aspects of defendant's program could have been independently created," the defendant "has reproduced the expression, not merely the idea of plaintiff's copyrighted work."²⁷

The Third Circuit, in the affirming opinion in *Whelan*, has attempted to build on the *Franklin* approach to bridge the seeming gap between utilitarian or "factual" works and other literary works. The court suggested that

the purpose or function of a utilitarian work would be the work's idea, and everything that is not necessary to that purpose or function would be part of the expression of the idea. Where there are various means of achieving the desired purpose, then the particular means chosen is not necessary to the purpose: hence, there is expression, not idea.²⁸

The formulation is not a panacea. Describing a work's purpose or function may be no easier than defining a work's idea, and how detailed the description is may well determine what is "not necessary" to the purpose of a program.²⁹ Nevertheless, the *Whelan* test allows the application of broad, traditional infringement analysis, avoiding the straight-jacket of a requirement of literal or near-literal copying—a requirement which would emasculate copyright protection for computer programs.

Before this review is published, surely other influential precedent will be forthcoming. Given the pace and scope of the developing law, the success of the efforts of Messrs. Davis and Millard must rest, in large

26. 605 F. Supp. at 825.

27. 623 F. Supp. at 1503; see also *Whelan*, 609 F. Supp. at 1320 ("[t]here are many ways that the same data may be organized, assembled, held, retrieved and utilized by a computer").

28. 797 F.2d at 1236 (*emphasis deleted and citations omitted*). Using traditional copyright analysis, the circuit court in *Whelan* and the district courts in both *Whelan* and *SAS* determined that the structure and organization of computer programs, as well the literal code, could be protected by copyright and that, under the circumstances of those cases, the structure and organization of the programs at issue were infringed.

29. See *Midway Mfg. Co. v. Bandai-America, Inc.*, 546 F. Supp. 125, 148 (D.N.J. 1982).

part, upon the value of their works in enabling attorneys to gain a perspective on where we have been as an aid to predicting where we are going. Despite the fact that after reading Millard a lawyer will know more than perhaps he or she ever wanted to about the British, Canadian, and Australian program protection systems, he or she will also have a sound understanding of how the United States system of protection for computer programs has developed up to 1985.³⁰ Davis' book is of limited value to lawyers actively practicing in the software industry who read to gain new insights about intellectual property rights in computer programs, but it is a useful collection of information for software entrepreneurs. If one thing is certain after reviewing these two works, it is that software protection is a legal area which will evolve for many years to come.

30. Both amusing and enlightening is Millard's discussion of Canadian copyright law and the 1984 White Paper, in which the Canadian government declared its general intention to revise the Canadian copyright laws and to specifically create "an entirely new regime" of protection for computer programs. C. MILLARD, *supra* note 2, at 77-80. The description of the White Paper is instructive to show how people presumably of goodwill and intelligence can become hopelessly confused in attempting to work their way through a rational scheme of copyright protection for computer programs. According to Millard, the 1984 White Paper has been put aside and new efforts are under way. That this is a good thing can be illustrated by just one statement from the White Paper: "No act done with respect to a machine-readable program will be considered an infringing act with respect to the human-readable program upon which it is based." *Id.* at 78.