The question at hand is: Can a computer program be copyrighted, patented, or protected as a trade secret? All three protective methods are examined, with special attention paid to the advantages and disadvantages of each pertinent to computer program protection. The scope of the protection and relevant case law are considered. The paper concludes that laws relative to the protection of computer programs are in a state of flux for two reasons: (1) the uniqueness of the computer and its programs in light of the currently accepted protection methods; and (2) the lack of case law in point.
Legal Considerations in Computer-Assisted Testing, Counseling and Guidance

Donald E. Skeeters, M.Ed.
Department of Educational Psychology
University of Kentucky
Lexington, Kentucky 40506

Read at the Annual Meeting of
The American Personnel and Guidance Association
in
New Orleans, Louisiana
March 24, 1970
The author of a book or composer of a musical piece is able to protect his proprietary interest in his work through copyright protection. The inventor protects his interest by patent. The business is prone to protect its proprietary interests such as customer lists by invoking the legal concept trade secret. But, what of the researcher whose finished product physically is a computer program? Can the computer program be copyrighted, can it be patented, or can it be protected as a trade secret? Further, if one can protect his computer program by more than one of these methods, what are the advantages and disadvantages of each so that one can make an intelligent decision as to what method to use to protect his computer program.

COPYRIGHT

There are two types of copyright—statutory and common law. While expressing doubt as to whether computer programs are copyrightable under the statutory provisions, the Copyright Office has ruled that programs are copyrightable as books (Copyright Office, Circular 31D, Computer Programs [April, 1967]). As a result, many programs have been copyrighted. As yet none of these copyrights have been challenged in the courts. The copyright entitles the holder to print, re-print, publish, copy and vend the copyrighted work (17 U.S.C. sec. 1 [a], [1964]). This protection extends to the form of expression, and does not prevent the use of the ideas found in the program. Baker v. Selden, 101 U.S. 99 (1879). That is, one may very well be able to use as knowledge gained the very concept the copyright holder is trying to protect and retain as his unique right.
Still another problem that a copyright holder will face if the courts have occasion to examine his copyright is a question of authorship. Undoubtedly he is the author of the source program. But, is he the author of a machine language object program produced by another program (compiler) operating on his source program internally in the computer? (See ASCAP, Copyright Law Symposium #16 [1968]).

The statutory copyright of a computer program is not acceptable protection for the copyright holder. Even though a copyright will be issued, it affords the holder little protection. The copyright will not protect the use of his ideas, only the form in which he expressed them. The copyright holder also faces the possibility that the courts may decide that due to the intermediary action of the compiler that the program as actually used in the machine is not copyrightable.

Common law copyright (one "obtains" it by not publishing the work) faces the same problems as the statutory copyright and in addition if the work is published in any way the holder loses the common law copyright (B. Ringer, Copyrights 4 [1965]).

**PATENT**

The patent system affords the creator of the computer program the protection he desires. In short, it gives him a 17-year monopoly. One can obtain a patent for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" (35 U.S.C. sec. 101 [1964]), that meets the statutory requirements of novelty, utility, and nonobviousness (35 U.S.C. secs. 101, 103 [1964]). In the past, attempts have been made to patent programs as either a process or as an apparatus.
Having presented a very brief introduction on patents I believe it best to pause before pursuing the process and apparatus claims to state the Patent Office position.

The Patent Office view is that the computer program is un-patentable since the program is a series of mental steps or a mental process (Cochrane v. Deener, 94 U.S. 780 [1877]). See also Guidelines to Examination of Programs, 829 O.G. Patent Office 1, 2 (1966).

A Presidential Commission has determined in a report that programs should not be patentable. Also, for many years, each Congress has had before it significant revisions of the Patent and Copyright laws. Those revisions have followed the accepted policies of the Copyright and Patent offices—i.e., would allow copyrighting of programs but would not allow them to be patented. However, currently the Commissioner of Patents is accepting views as to the patentability of programs.

With the Patent Office properly positioned, what of the claim that a program is an apparatus and thus patentable? Naturally such a claim requires that the program and its hardware be presented jointly as the apparatus. There have been successful claims following this path (Kurtz, Patents and Data Processing, DATA PROCESSING, November 1964 at 9, 13; Computer Decisions, November 1969 at 14, 17) and the recent case of In re Prater and Wei ___ C.C.P.A. ___, August 14, 1969 (Rehearing of 159USPQ583 decision). Thus, those in the trade with not only a program but their own hardware are in business if they meet the statutory provisions of patent.
The claim that a program is a process is the path the users of the commercial computers will have to follow. Sad to say this is not a primrose path! As mentioned earlier, the Patent Office has held that a program is a mental process and Cochrane has long been precedent for the proposition that the process must be physical. And until Prater the courts agreed. The Prater case according to some opened the doors, others say it did nothing, still others admit to a cracking of the door. In Prater the process claim was denied. But in denying the claim the Court said that the oft-quoted precedence from Cochrane that a process must be physical and not mental was not intended to limit the scope of process patents but was merely an example. Further Prater said "Whether or not a sequence of purely mental steps comes within the bounds of 'process' as used in 35 U.S.C. 100, 101 is, we feel, an issue which has never been squarely decided." In a dictum-type statement the Prater court said that a computer is a storeroom of parts and that the program makes it into a special purpose machine and that such may be patented as a process provided that the statutory requirements are met.

Assuming that one could get through the crack opened by Prater there are other significant obstacles. One is the statutory requirement of being nonobvious. Can you show that what you have produced would not have been obvious to the ordinary, experienced programmer. Programming is not only a science, but is also an art. As such it will be difficult to show nonobviousness.

Still another very practical consideration is one of time. To obtain a patent takes approximately 3 years. Usually the program's useful life is not that long. Another aspect to this is the required search of the field. How does one make a
valid search of the prior work in computer programs? If rigidly enforced this
requirement alone could add years to the time lag.

As a result of these legal and administrative problems there have been
alternatives to the copyright and/or patent system proposed by members of the
industry. Rather typical and perhaps best known is the IBM proposal. IBM's
system would be to (1) set up a special registry and have a description (not the
coding) of the program recorded, (2) give the program patent-type protection
for a limited number of years (for example: 5) as opposed to the patent's 17 years.

TRADE SECRET

Trade secret is another legal concept which might be helpful to the creator
of a program. Essentially one can invoke the trade secret theory if he has a
concept which he has not disclosed or at least has only disclosed in a limited
way (example: License agreements). This is undoubtedly the most used method
to protect a program. The problem with trade secret is being able to prove in a
court of law that you have kept it secret, or if you have licensed it to more than
one licensee, which licensee is the culprit giving away your secret.

But, relative to trade secret an even more ominous wind is stirring. In
the case, Lear, Inc. v. Adkins, 395 U.S. 653 (1969), the Supreme Court,
according to some legal scholars is invoking the federal pre-emption doctrine
as between patents and trade secrets. A patent is granted by federal authority
whereas trade secret comes about through the common law of the states. The
federal pre-emption doctrine very simply put declares that where federal
legislation exists, state law does not. In Lear the Court indicates that if a
subject is found to be a proper subject for patent, then its owner has no rights
under trade secret law. Another way to put it-- if the computer program can be patented it will not be protected under trade secret law even though it is kept a secret.

The law relative to protection of computer programs is a state of flux. Each avenue is not crystal clear in whether it will afford the protections possible under its umbrella of remedies. The problem is two-fold: the uniqueness of the computer and its programs relative to the accepted protection methods, and more importantly, the lack of case law directly in point. Copyright affords little protection; a patent may not be obtainable (either legally or from administrative standpoint); and a trade secret (even though the most used) is difficult to maintain and is on shaky legal ground in light of Lear. Congress needs to legislate in this area because as things stand, the creator of a program is "damned if he does and damned if he doesn't".
Before I close another problem that many of you face is the other end of the problem we have just discussed—what of the situation when you are using another’s copyrighted or patented work. This might be discussed by a hypothetical—as many of you use tests every day and are constantly developing data bases you probably have had this situation—you are using 50 re-usable copyrighted test booklets. You administer this test to 1000 people. The responses are true-false. The issue is this—owing to the copyright on the booklet, must you also purchase the answer sheet form from the test booklet publisher or may you use another, say an answer form that could be used for several tests, not just this one? The answer to this hypothetical is that one does not have a copyright on a form that gathers information (Baker v. Selden; Copyright Office Circular #32, June, 1956; Taylor v. Fawley-Brost Co., 139 F.2d 98 (7th Cir. 1943).

Another facet of this hypothetical would be whether there is an infringement of the copyright. As long as the publisher of the test cannot show you are infringing his interest in the test booklet there is no infringement (Physics text case).
Additional References


