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THE CHALLENGE OF COMPUTER LAW

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ROBERT P. BIGELOW*

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I. INTRODUCTION

"Computer Law." It has a nice ring to it, but what is it? Is it a field of law? Is it the law of an industry? Is it a discipline? It's probably all three, but primarily, it's a challenge to established legal concepts.

Traditionally, fields of law have been industry-independent, perhaps because of the training that lawyers receive in law school. Required courses usually include contracts, torts, procedure, criminal law, property, tax, and business law. Elective courses include such esoterica as intellectual property, international law, antitrust, and the

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Lawyers often carry these fields into practice: trusts and estates, taxation, business law, and civil litigation. In the commercial world, however, clients don't care how a field of law is defined by the law schools or by lawyers. Clients look for solutions to problems. Fields of law are irrelevant to the client; management just wants the right answers.

In any industry, competent service to clients requires a basic understanding of many "law-school-defined" fields of law. For example, the lawyer who represents a bank and trust company must be familiar with the Uniform Commercial Code, the law of trusts, wills and estates, federal and state taxation, and the numerous laws and regulations that affect the client's operations. Traditional courses do not teach this. Fortunately, law schools have, to some degree, recognized this fact and do offer some industry-oriented courses such as securities law and insurance law. And some law schools now offer a course in computer law. To the extent that these courses draw upon concepts from traditional fields of law (and expose such concepts to rigorous examination), the law, indeed society, will be well served.

II. TECHNOLOGY ADVANCES THE LAW

Each new technological advance creates new legal problems and calls for reevaluation of old concepts. For example, the law of copyright in published works stems from the development of the printing press. According to one respected source, authors' rights were recognized on principles of natural justice long before Blackstone, but the development of the first copyright law resulted from efforts by the Stationers Company to perpetuate its monopoly of the right to print (and to censor) whatever was published in England.

In many ways, the history of technology is the history of communications. The development of the railroad led to the establishment of the Interstate Commerce Commission. The development of the auto-

1. Lest readers quarrel on whether the Uniform Commercial Code is esoteric, it is my understanding that even such an alleged educational leader as Harvard Law School has no course covering the entire Code. Some articles of the Code are touched upon in other courses.

2. For example, a national bank may well be regulated by three different federal agencies: the Comptroller of the Currency, the Federal Deposit Insurance Company, and the Board of Governors of the Federal Reserve Systems. Such banks may also, under certain circumstances, be subject to de facto (if not de jure) regulation by state banking departments.


4. The Statute of Anne, 8 Anne c. 19 (1710).
mobile led to the licensing provisions of the several states and even of
the federal government. The development of the airplane led to the
Federal Aviation Administration and the late (and sometimes la-
mented) Civil Aeronautics Board.

In the telecommunications field, the invention of telegraph, tele­
phone, radio, and cable has led to regulation at the federal and state
level. The Interstate Commerce Commission was given authority to
regulate wire and radio communications as early as 1910. While ra­
dio regulation was assigned to the Federal Radio Commission in
1927, the ICC continued to regulate telecommunications on the inter­
state level. In 1934, Congress brought both technologies back under
one agency (the Federal Communications Commission) through the
Communications Act of 1934. At the same time, state regulation of
telecommunications was proceeding. Cable TV is subject to both
state and federal regulation.

New technology upsets balances established under old technol­
ogy. And so it has been with the computer, now a pervasive machine,
although not yet fifty years old. The regulatory response has been, as
yet, comparatively minimal, but the technology is still new.

Yet the computer industry is still subject to many specific regula-
tions. Any attempt to list each of these regulations, especially at the
state level, is a task for an encyclopedist, not a practicing attorney.
However, the following are offered as examples:

A. Telecommunications

In 1966, the Federal Communications Commission began an in­
quiry into the relationship between computers and telecommunica-
tions. Following a tentative and a final decision, which was

5. For example, the 55 mph speed limit.
6. R. Wiley, Competition and Deregulation in Telecommunications: The American
from Stat. 1851, ch. 247.
12. In re Regulatory and Policy Problems Presented by the Interdependence of Com­
puter and Communications Services and Facilities, Docket No. 16979, November 9, 1966,
7 F.C.C.2d 11, 1 C.L.R. 645 (1965).
modified on appeal, the Commission entered a final order in 1973—six and a half years after the inquiry began. But technology marches on. By 1976, the Commission felt it necessary to begin a further inquiry into the relationship between computers and communications, again followed by a tentative decision, a final decision, a reconsideration, and a court appeal.

The entire telecommunications world was turned upside down by the government’s antitrust action against American Telephone & Telegraph Company in which a consent decree, issued in 1976, was modified by a federal court in the District of Columbia in which a subsequent action had been brought.

The Federal Communications Commission, state public utility commissions, the Department of Justice, and the Federal District Court for the District of Columbia are currently involved in regulating or deregulating telecommunications, and attempting to apply the computer rules developed by the FCC to various telecommunications entities. The result is much work for lawyers and many headaches for business.

B. Computer-Produced Radio Interference

Computers emit radio frequency waves that may create problems for those using other equipment. The Federal Communications Commission has issued regulations limiting the interference that computers can produce through radio emissions. In at least one case, a manufacturer’s liability for such emissions was held to be a jury question.

C. Banking and Finance

In the banking field, there has been much federal and state legisla-
tion. Among the issues considered are a bank holding company's authority to establish a data processing subsidiary and the procedures required for national banks to establish automated teller machines (ATMs). Congress has enacted the Electronic Funds Transfer Act, and the Federal Reserve Board has adopted Regulation E pursuant thereto. The most recent federal law affecting banking is the amendment to the Criminal Code making unauthorized actions in connection with computers of federally-insured institutions a criminal offense.

D. Maintenance and Service

Are the maintenance personnel servicing government-owned computers subject to the Service Contract Act of 1965? The Reagan Administration's final rules exempting such employees from the applications of the Act became effective in 1983. But some kinds of computer services, such as data collection, processing, analysis, keypunching, and key verifying are specifically covered by the Act.

E. Copyright

From a permissible registration under the Rule of Doubt, computer programs clearly became subject matter for copyright, and rightful owners of copies are given specified rights by statute.

The foregoing are merely a few areas in which computers have encountered the law. Other areas include retail price marking regulation, application of state public records acts, and the heavy empha-

34. Copyright Office Circular 31D, January 1965, 6 C.L.S.R. 1167.
sis upon privacy catalyzed by the computer.  

III. THE TECHNOLOGICAL CHALLENGE TO LEGAL CONCEPTS

Advances in technology throw doubt not only upon laws of science, but, with more frequency, upon the laws of man. The nature of software provides an example of how the law may have to change to accommodate fact.

Federal tax law has developed so that the government receives more if a product is intangible, because no investment tax credit is available, and amortization can be only on a straightline basis. State and local communities, on the other hand, levy sales, use, and personal property taxes. But most states permit such levies only on tangibles. Since software is information recorded on magnetic media for the most part, it is not surprising that the federal government has held that software is intangible, and state governments have often decided that the same software is tangible.

But the problems of tangibility or intangibility of software extend beyond taxation. For example, in one of the earliest computer crime cases, the defendant attempted to peddle stolen computer programs on punched cards. Defendant's counsel argued that the value of the theft should be determined by the value of the punched cards, rather than by the value of the information contained on the cards. After he

39. See Report of the Special Master, Newman v. Massinghoff, No. 83-0001 (D.D.C. Sept. 28, 1984), in which the plaintiff's effort to patent an "energy generation system having higher energy output than input" was denied by the Patent and Trademark Office because it violated the second law of thermodynamics. The court, following the recommendation of a special master (William Schuyler, former Commissioner of Patents), ordered the Patent and Trademark Office to examine the patent application rather than just treat it as impossible. See also Smith, An Endless Siege of Implausible Invention, SCIENCE, Nov. 16, 1984 at 817.
was convicted of grand larceny, the defendant brought a habeus corpus action specifically on the grounds that the punched cards were worth, at the most, $35 as scrap paper (since the cards were full of holes). His petition was denied.

What is the status of software under the Uniform Commercial Code? Section 2-105(1) defines goods to mean, "All things . . . which are movable at the time of identification in the contract for sale . . . ." Divers things, including natural gas, electricity, and the compiling, editing, and publishing of pamphlets, have been held to be "goods." Furthermore, an entire computer system (including the software and installation) has been held to be a good. However, contracts for the performance of data processing services are not contracts for the sale of goods. In a facilities management contract (a service transaction), the software was held to be tangible and subject to replevin. However, software is often licensed, rather than sold. Is a license a good? In *Tomb v. Lavalle*, it was held that a liquor license was a general intangible, not a good; therefore, the U.C.C. did not apply to its sale. In *Peterson v. Wildcat Mountain Management Corp.*, it was held that the plaintiff could not maintain an action for breach of UCC warranty for injuries in a ski mishap, because the sale of a ski lift ticket did not constitute the sale of a good.

Even if software is considered to be goods under the Uniform Commercial Code, it is often licensed rather than sold. This is because software is often considered to be an intangible asset that is licensed rather than sold. The Uniform Commercial Code (UCC) defines goods as all things that are movable at the time of identification in the contract for sale. This includes natural gas, electricity, and the compiling, editing, and publishing of pamphlets. However, contracts for the performance of data processing services are not contracts for the sale of goods. In a facilities management contract (a service transaction), the software was held to be tangible and subject to replevin. However, software is often licensed, rather than sold. Is a license a good? In *Tomb v. Lavalle*, it was held that a liquor license was a general intangible, not a good; therefore, the U.C.C. did not apply to its sale. In *Peterson v. Wildcat Mountain Management Corp.*, it was held that the plaintiff could not maintain an action for breach of UCC warranty for injuries in a ski mishap, because the sale of a ski lift ticket did not constitute the sale of a good.

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Commercial Code, software may not be goods for other purposes.  

For example, a patent license agreement has, under the Robinson-Patman Act, been held to be the sale of an intangible right of use rather than the sale of goods. Courts, however, are divided as to whether electricity is a commodity under the Robinson-Patman Act.

The answer to these problems turns in part on the concepts of tangibility and movability. Have such concepts outlived their usefulness? Or perhaps we have come full circle. According to Radin, "The distinction between movables and immovables despite its transcendent practical importance was not made the basis of a legal classification" in ancient Roman law.

But the distinction appears to be crucial to taxing authorities and those who seek to apply Article 2 of the Uniform Commercial Code. Does it make any real difference whether software recorded on a cassette is a separate tangible item, rather than the mere representation of intellectual property — the embodiment of what has been licensed by the owner for another's use? Such a distinction is likely a concern only to those who worry about the purity and the symmetry of the law. Does the tangibility or intangibility of software for tax purposes really matter? Pragmatically, the federal, state, and local governments will interpret statutes to produce revenue. The fact that the same computer program may be tangible under one law and intangible under another will not delay the tax collectors on their appointed rounds.

What these questions do illustrate is that new technologies — of which computers are but one example — create anomalies in the law and require each generation of lawyers (and law professors) to reexamine basic legal concepts. The lawyer whose practice is serving the needs of an industry may become aware of the need for such reexamination before the scholar who is an expert in the law of sales or federal taxation does. Technological advancement mandates that the teacher and the practitioner interact. The articles that follow will, hopefully, aid this dialogue.