

Two CD-ROM Pricing Issues

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TWO CD-ROM PRICING ISSUES

There are a number of issues effecting the pricing of CD-ROM technologies, but two of them are both contentious and have potential for serious impact upon the field. Their resolution at the moment is not clear. Since CD-ROM technology holds great potential for library service, and it is particularly attractive in the context of the less well developed countries (Brito, 1989; Beaumont & Balson, 1988), it is therefore important that the field address these potential issues early on. The two concerns are "lapsing ownership" and "metered pricing."

Lapsing Ownership

The former ownership, the more widely articulated of these two concerns, at least for the moment, is the concern that might best be described as "lapsing ownership," a phrase that this author has not seen in the literature, but one that is brief and descriptive.*

The concern is that CD-ROMs are typically leased for a fixed period of time rather than purchased outright, and if the lease is not renewed, the typical lease requires that no further use be made of the product (Zink, 1990). This is in marked contrast to the purchase of traditional print-on-paper information where one essentially acquires perpetual ownership, though subject, of

* CD-ROM vendors would probably argue that in a lease there is no ownership, and that therefore "lapsing ownership" is not an appropriate phrase, but from the point of view of the customer it describes the perceived problem quite precisely.

course, to copyright laws and concomitant restrictions on copying or duplicating. The buyer is required to pay no annual fee to use material, no matter where purchased, and there is no obligation to return the back issues if the buyer decides to cancel the subscription, nor is there any prohibition of resale.

Most CD-ROM products by contrast are set up as subscription services with regular updates and annual fees. The vast majority of these subscription type CD-ROM agreements include phraseology which prohibits any use of the product, including old disks, after the subscription has expired (Jacso, 1992). Most agreements also require the subscriber to return or destroy all copies of the compact disks and the software upon termination of the agreement or lease. These requirements have been a matter of great concern to librarians (Jensen, 1991). Most librarians would admit that the situation seldom arises in which lapsing ownership is in fact a problem, but even so the principle bothers them. Most librarians see themselves as deploying their resources to build a permanent collection, not simply deploying resources now to provide service now or in the very near future. The latter concept is taken for granted in the corporate library and information world, but it is generally alien to librarians from the not-for-profit community.

It is interesting to note that this desire to shift the method of acquisition of library reference tools from straight purchase to a lease with "lapsing ownership" is not novel with CD-ROMs, nor even new with electronic delivery of information, but rather it began as far back as microform technology. For example, the

Chemical Abstracts Service of the American Chemical Society which has always sold its print services as straight purchase, chose to lease its microform version of the C.A. (Chemical Abstracts) database with the stipulation that if the lease was canceled all previously acquired material became the property of CAS and was to be returned. The author knows of several cases where a library did in fact subscribe for a period and then cancel its subscription (usually for the reason that the microfilm version had been "bought" to provide better simultaneous access to the database and relieve congestion at the printed Chem Abstracts, only to find that the users avoided the cumbersome microfilm version, and if they found the print version too occupied, they simply left and returned later to the print version, rather than use the microfilm). In none of these cases did the library in fact return the microfilm to CAS, nor did CAS ever ask for it.

The case of Chemical Abstracts Services microform policy is an illuminating example. CAS admits that the policy created customer ill-will. This policy was nominally maintained if not enforced from the early 1960s until quite recently. Apparently the policy was created because CAS felt that while the copyright law was adequate to protect them from wholesale copying of the print product, they needed additional protection for the microform product. The reason given to the customers for adopting the policy was as a protection against the user subscribing for a year, copying the database, and then not resubscribing. The policy was abandoned recently because it was clear that if someone were to

copy the database, it would be from an electronic version of the database, online, tape, or CD-ROM, not from the microform version, and that the only contribution the stipulation was now making was to annoy customers. Clearly CAS would have been better served by a straight-forward stipulation in the lease agreement that the database not be copied. The issues are essentially the same for CD-ROM databases. The database owners would be better served by a signed agreement as part of the lease that the database not be copied. The database creator does have a legitimate concern that last year's copy not substitute for what would have been a second sale, but that is typically not an item of contention, the user does not object to returning the old CD-ROM after the new one has arrived, rather it is the lapsing of perceived ownership if the subscription is canceled. The database creator does have another legitimate concern that a database user not merely subscribe occasionally, for example, only on alternate years. That concern could be addressed by vesting, that is a clause that the user's ownership rights are vested after (that is do not commence until) a certain number of years, perhaps three years has passed. Thus, if a library canceled after having subscribed for three or more years, it could retain the database, subject of course, to the other clauses of the lease, stipulating that it not copy the database.

There is certainly evidence that liberal policies do not harm the publisher. The H. W. Wilson Company, for example, not only does not insist on lapsing ownership, but it also lets customers

keep their old disks. Wilson has concluded that this has not injured them in any fashion, and it has certainly earned them kudos and renewed loyalty among customers who had grown somewhat disaffected at their slowness in automating.

Librarians should at the same time realize that a "standard" contract is often negotiable. If a library is concerned about losing ownership, it can strike out the offending line in the lease and substitute something else, perhaps vesting ownership and a commitment not to copy. Database creators are far more flexible in these matters than they would have customers believe. It is much simpler for the database creator or vendor if everyone agrees to their standard contract, but a reasonable modifications will often be accepted rather than risk foregoing a sale. Librarians and information officers should not be reluctant to request changes. They have nothing to lose and everything to gain.

The concern of lapsing ownership is to a large extent something which should ultimately not remain a major issue. At base is the reality that most of the CD-ROM products for which librarians are concerned about lapsing ownership are, at this point at least, products for which the half-life of information is relatively brief and consequently old discs and the information on them is not likely to be of great value.

For the distributors or producers to insist that ownership of the discs lapses if the subscription is not maintained is, in most cases, pointless, benefiting the producer nothing, unlikely to be enforced, and creating only ill-will. The producer can be quite

adequately protected by all of the other constraints against resale, copying, etc. contained in a typical lease.

WILL THERE SOON BE A METER RUNNING?

Probably the aspect of CD-ROM that the library community finds most attractive is that the meter is not running when the user searches, that is, CD-ROMs are priced on the basis of a known and predictable annual fee schedule that is independent of the amount of usage. This makes the system much less threatening to the user, and even if the search software is precisely the same as the online version, the CD-ROM version is thereby in reality much more user-friendly (Watson, 1988). From the librarian's selfish point of view, however, the user-friendliness of CD-ROMs resides in how much easier it is to budget for CD-ROM than it is for online, and how much easier it is to gain approval for the predictable budgetary expenses of CD-ROM that are guaranteed to contain no nasty surprises. This is in contrast to the paradox of online databases where the more popular a product proves to be, the greater the bill will be, then consequently the greater the likelihood that there will be a budget overrun, and the more difficult, complex, and painful the library's budgeting and political maneuvering are apt to become.

From this viewpoint, a serious concern is the potential that CD-ROMs can easily be made to behave like online databases and meter, for subsequent billing, the amount of usage made by institutions, or departments, or individuals. A metering system can easily be built into a CD-ROM, and the meter monitored when the

old CD-ROM is returned, or in some cases the meter could be queried remotely. Some persons in the information industry have argued that the development and application of this capability is vital to the growth of the CD-ROM industry (Shear, 1992). This prospect sends a chill down the spine of most librarians.

How likely is this scenario? The bad news is that this capability is being developed and will almost certainly be used. At least two companies, National Semiconductor Corporation, and Wave Systems Corporation (formerly Cryptologics International Inc.), have recently publicly or semi-publicly announced such systems. The Wave system is in beta test (Clark & Siegmann, 1992), and Wave has stated that "commercial introduction of the Wave System is planned for early 1994" (Wave Systems Corporation, 1993). Wave Systems has licensed National Semiconductor Corporation to manufacture the metering chip. Interestingly, National Semiconductor is promoting a system, presumably the same, as iOpener, and is soliciting business from information publishers. They are promising that "a substantial number of partners will be with us at a formal announcement of the technology in early 1994" (National Semiconductor, 1993).

The good news is that metering will by no means be universal, and that it may to some degree be an interim technology. First, as Stephen Arnold (1989) has pointed out, most CD-ROM products are either quite cheap or rather expensive. It is only for the latter that metering makes much sense. Second, there is no question that there are sensitive high value information applications for which

the database creator legitimately desires such a degree of control. These however are typically applications, for example sensitive market analyses, for which there is a great deal of time sensitivity, and for which the logical host would be an online system. The logical future delivery mechanism for such data is an online system utilizing public key encryption.* The union of networks, for example The Internet, with such encryption technology is however a very complex issue whose resolutions will take time. Part of the problem is the loose and relatively unstructured governance of the Internet and its tradition of open access, and another major part of the problem is the concern of governmental agencies about the use of encryption and the impact of that encryption upon the ability of national security administrations to monitor communications. Needless to say, this becomes a complex issue of transborder dataflow, and the complexity probably means that no resolution is imminent.

In the meantime, the use of CD-ROMs with metering, probably including less sophisticated encryption of those meters will

* Public Key Encryption is a two key cryptographic system in which one can encrypt a message using a "public" key that is available to everyone, but the message can be decrypted only by the party having the other "private" key. Thus a user could address queries to a vendor using the vendor's public key and only the vendor could decrypt those queries using their private key. Similarly the query responses could be sent to the user encrypted with the users public key, and only that user could decrypt it. This technology has applications not only for billing, but for customers, such as pharmaceutical companies who would like to assure that their data base usage and their specific queries, for example a very specific chemical sub-structure search, are entirely confidential. Fitzgerald (1993, p. 643) has a good description of public key encryption.

provide a viable alternative, with an acceptable if not quite so adequate degree of control. The librarians mostly likely to be affected by those developments are corporate librarians, the typical users of that sort of sensitive data. Public, school, and academic librarians are likely to be relatively unaffected.

Most vendors are now aware of how attractive the "all you can eat for a fixed price" method of pricing is to the library users community (Erkkila, 1990, 1991). To illustrate that advantage, let us imagine a scenario in which the librarian has two choices:

The first option is to provide access to a database on a metered basis. The librarian's estimate of the likely usage and consequent cost (and let us assume that this is a rather accurate estimate, and that the librarian knows that it is indeed accurate and reliable) is that there is

a 40% probability that the year's usage will cost \$7,000

a 40% probability that the year's usage will cost \$10,000

a 20% probability that the year's usage will cost \$15,000

The second option is a fixed price of \$10,000 for the year, regardless of usage.

In the first case, the best estimate, the "expected value" (the sum of the products of the value of each "outcome" multiplied by the probability of that outcome) of the price to be paid to the

vendor is:	\$ 7,000 x .4 =	\$ 2,800
	\$10,000 x .4=	\$ 4,000
	\$15,000 x .2 =	<u>\$ 3,000</u>
		\$ 9,800 = the "expected value"

In the second case the price is a simple \$10,000.

The vendor clearly would prefer the latter case (since on average the vendor will receive \$200 more per customer), and the typical librarian probably would prefer it as well, as the expected saving, \$200 is fairly small, while the 20% chance of being well over budget at \$15,000 (the most realistic and likely budget figure being on the order of \$9,800) is a major liability. The vendors are aware that fixed pricing, if instituted and structured carefully, is in their interest. What is necessary to structure fixed pricing carefully is a set of tiers. That is, smaller but fixed prices for smaller institutions, and larger but still fixed prices for larger institutions. Librarians will recognize this as what they have long known as the "service basis of pricing" long used by the H.W. Wilson Company for its print products (Koenig, 1984). Indeed, the attractiveness of the fixed price method is sufficiently strong that in the aggregate there will probably be as many online services adapting some version of a fixed price scheme, as for example OCLC has done for some of its services recently, as there is of CD-ROM products adopting metered pricing. Many librarians in fact credit CD-ROM with both making vendors aware of the attractiveness of fixed prices and of compelling the online vendors to rethink their pricing practices. (Quint, 1989).

SUMMARY

In summary, there are two contentious issues related to CD-ROM pricing. For both of those issues, lapsing ownership and metered pricing, the issue may loom larger than is warranted, but in both

cases it behooves librarians to be aware of the issue and to make their preferences known.

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ABSTRACT

Two major pricing issues related to CD-ROMs are discussed: lapsing ownership and metered pricing. Lapsing ownership is a real concern to librarians, and it does not really benefit the producers, rather it creates customer ill-will. Producers have adequate alternative protection, and libraries should make their opposition known. Metered pricing for CD-ROMs is a phenomenon that will happen in some cases, but the author feels that it is not likely to have a major impact in the library field.