1.0 Introduction

Multi-user access is one of the fastest growing areas of the CD-ROM marketplace. Since several library sites have tested the merger of multiple technologies to build such networks, clearly it is technologically possible to provide either in-house or remote networked access to some CD-ROM databases.

As with many experiments in library automation, the technological hurdles that must be overcome belong to the first stage of the process and, complicated though they may be, do not represent the totality of the problem. License agreements represent another challenging area in the universe of CD-ROM networking. The first indication of the complexity at hand is the lack of standard methods for initiating, negotiating, or determining such arrangements. Each vendor is likely to produce a unique license agreement and, in some cases, is likely to have different arrangements with each institution, regardless of the similarity of their network environments.

CD-ROM network license agreements are also frequently extensions of or riders to existing single-use agreements, not separately designed legal documents. This situation is further complicated by the implied separation of licenses for data and licenses for software. Additionally, some agreements require that the established relationship be held in confidence, thereby limiting customers' ability to learn how others have handled specific licensing dilemmas. It is clear that this segment of the information industry has not fully matured.

End-users, network managers, database producers, and product vendors all approach licensing issues from different perspectives. Even within these groups opinions, policies, and procedures vary greatly. It is also the case that none of these groups have a corner on clarity or sensibility. The issues are often fraught with philosophically opposing motivations, but that is not to say that compromises can not be made. This paper will outline several descriptive categories of CD-ROM network license arrangements available in the marketplace at this time and will attempt to examine and clarify some of their pitfalls.

2.0 Context of CD-ROM License Agreements
To establish a context for CD-ROM license agreements, it may be helpful to view them as an outgrowth of two other related types of licenses—commercial microcomputer software licenses (e.g., dBase IV, Lotus 1-2-3, and WordPerfect) and large-scale database licenses (e.g., Current Contents, INSPEC, and Magazine Index). In the former, it is use of the software that is granted under certain stipulations, primarily concerned with the number of users, workstations, or program copies. In the later, similar concerns remain; however, since software is an entirely separate entity that is purchased or leased from another vendor, the primary limitation is on access to or use of data.

CD-ROM products represent a combination of software and data. As such, one would expect that the process of licensing would be straightforward in terms of dealing with a single entity (e.g., database producer, vendor, or jobber). Frequently, this is not the case, since the CD-ROM marketplace is filled with a variety of combinations of data gatherers and compilers, software developers and marketers, publishers, and product vendors and jobbers, each with some involvement in the process.

It may also be helpful to understand that most current CD-ROM database products are extensions of online files. While there are a growing number of products that followed a different development path (e.g., Microsoft Bookshelf), most of the products of interest to large-scale centralized information centers are and will be databases that have been previously available in some online format or have existed in machine-readable format for other purposes (e.g., preparation for traditional print publishing).

The major implication of this developmental history is the role that database producers play in CD-ROM network licensing. The role is somewhat schizophrenic in that, while they certainly want users to gain access to the valuable knowledge stored in their particular databases, database producers also want to recover the cost of producing the databases and, if they are a commercial company, to make a profit. The later economic concern inherently limits CD-ROM networking to customers for whom the cost of access to the data is less than its applied value.

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Since distributing data in CD-ROM format may reduce the demand for online access to equivalent files, many database producers are leery of providing broad-based access to CD-ROM products in a local environment, particularly when "local" means a campus-wide LAN with dial-access capability and connections to wide-area networks. By behaving in this manner, database producers frequently present a somewhat inconsistent image to institutions that wish to license CD-ROM products for network access.

3.0 Categories of License Agreements
The result of this complex scenario is that a variety of network license arrangements exist in the marketplace. Two general issues are involved in these licenses, restrictions and pricing.

3.1 Restrictions

Typically, a CD-ROM network licensing agreement will indicate the legal network location or the legal number of registered users, simultaneous users, or workstations on the network. If the agreement is numerically oriented, the method of measuring these users or workstations may vary, but usually will stipulate the exact number or specify ranges within which the network must operate.

3.1.1 Registered Users

Some license agreements identify by name the individuals who are permitted to have access to a particular product. While an arrangement such as this may work in an organizational environment where information needs are clearly and fairly predetermined, most libraries and information centers would find this type of agreement unacceptable since most do not identify users individually in terms of utilizing particular resources.

3.1.2 Number of Workstations

License agreements that limit the number of network workstations are more amenable to standard library practice. It is possible to identify honestly how many workstations have access to a network, provided there is no gateway, bridge, or dial-in access to that network. However, this restriction is problematic for libraries that wish to provide convenient access to clients from homes and offices through dial-in or wide-area network strategies. In many cases, it would be difficult or impossible to count effectively the total number of workstations having access to the network. Furthermore, since the method of counting has financial implications, it does not make sense to assume that every workstation that has access to every resource on the network will use every resource on the network.

3.1.3 Number of Potential Users

A variant of limiting the number of workstations on the network is restricting the number of potential users on the network. This number is even more difficult to count than the total number of workstations on an open network. Fortunately, the number of potential users has not been a common restriction with CD-ROM networking. It is found more frequently in mainframe-oriented database license agreements. But it may become an issue with CD-ROM licensing. Aside from the practical impossibility of
determining this number, such an approach also confuses potentiality with reality. If faced with this type of restriction, it may be wiser for librarians to seek other databases with more realistic license agreements.

3.1.4 Simultaneous Users

Stipulating the number of simultaneous users of a product is another common CD-ROM network license restriction. Simultaneous use is defined as the use of a specific product at the same time; it is not measured by simultaneous disk access or keyboard activity. If a user enters a CD-ROM product, the user will be counted as one user until the user leaves that product entirely. This method is based on the assumption that, through the network software, access to any given resource can be limited to a set number of simultaneous users. This type of arrangement establishes a maximum number of simultaneous users, regardless of the number of workstations on the network. Restrictions of this sort appear to be approaching a happy medium between identifying specific users on one extreme and paying for universal access on the other. In an arrangement such as this, institutions also retain the freedom to expand the size and nature of a network without the necessity of re-negotiating licensing agreements with each vendor, providing the number of simultaneous users remains the same.

3.1.5 Network Location

Some CD-ROM network licensing agreements stipulate a spacial restriction rather than a numeric one. In this category, the licensee may have any number of workstations on the network as long as they all reside in the same physical building and no access is granted beyond the physical building housing the network. This is actually fairly common in CD-ROM network licenses, although it is quite rare for commercial software like Lotus 1-2-3. Frequently, this is an additional stipulation along with one of the other licensing restrictions mentioned above.

While this restriction eliminates external access, it does grant high levels of freedom within a given physical space. License agreements with restrictions such as this become more complicated in cases where libraries house computer equipment in separate buildings (e.g., computing centers, branch libraries, and outbuildings). Clearly, this is an area requiring attention in order to make CD-ROM networking a realistic option in many libraries.

3.1.6 User Affiliation

Many single-user CD-ROM license agreements carry a restriction
that stipulates that only individuals who are affiliated with the licensing organization may have access to the product. Since libraries rarely require that users identify themselves before using information resources, this license restriction is problematic for both single-user and multi-user settings. Once this situation is expanded to include remote access, the ability to monitor the relationship between user and organization becomes less controllable.

3.2 Pricing

Just as the restrictions placed on licensees vary greatly so do the pricing structures for networking CD-ROM databases. In general, there are four categories.

3.2.1 No Additional Fee

Some vendors will permit licensees to mount their CD-ROM databases on a local area network without incurring additional cost. Surprisingly, there are several companies that have pursued this pricing scheme. Certainly it does encourage those who can afford to install a LAN to do so using these vendors’ products. Usually this type of pricing scheme is married to the physical building restriction mentioned above, effectively limiting the scope of the network while still providing multi-user access.

3.2.2 Base Plus Percentage

All CD-ROM databases have a base purchase or subscription fee. To network some products requires an additional charge figured as a percentage of the base fee. These percentages typically range from 50% to 100% (i.e., twice the base price), but they can exceed 100%. The agreement typically stipulates a range for the number of users or workstations. For example, two to ten users or workstations on the network might be charged at base plus 50%, while eleven to twenty users or workstations might be charged at base plus 100%.

3.2.3 Base Plus Fixed Fee

This category is a variant of the previous one. Instead of the additional cost being figured as a percentage of the base, it is a set fee per user or workstation. These users or workstations may be counted in a variety of ways: registered users, simultaneous users, potential users, permitted workstations, or total workstations. For example, if a network permitted five simultaneous uses of a given database, the cost would be base plus five times the additional fee. These fees range from $20 or $30 to several hundred dollars per user or workstation.
3.2.4 Separate Structure

In some cases, the pricing structure for CD-ROM network licenses is completely different than the pricing structure for single-user licenses for the same product. The price range for multi-user access is usually significantly higher.

3.3 Combinations of Restrictions in License Agreements

Given that there appear to be six categories of restrictions and four pricing schemes, statistically there could be up to twenty-four different combinations of licensing arrangements considering just these two factors.

In reality, there are probably even more possibilities, since individual database producers or vendors may include variations on these themes. It is no wonder that the existing CD-ROM networks tend to be limited to relatively few products or multiple products from the same database producer or vendor. Implementing a larger LAN that provides access to a wide array of CD-ROM resources may require difficult negotiations and may result in a myriad of agreements, each with its own unique limitations.

4.0 The University of Houston Libraries' Experience

As part of the University of Houston Libraries' Intelligent Reference Information System (IRIS) Project [1], library staff investigated the network licensing policies of numerous CD-ROM vendors. In 1989, the University of Houston Libraries were awarded a $99,852 Research and Demonstration Grant from the U.S. Department of Education's College Library Technology and Cooperation Grants Program to develop and study a prototype IRIS system that combines expert system and CD-ROM network technologies (federal funds will pay for 51% of the estimated costs of project).

Between December 1989 and January 1990, twenty-one database producers or vendors, representing fifty-three databases, were contacted for license information. Two of the 53 databases were not available for networking at the time of this survey. One of these is now available for network licensing on a case-by-case basis through an interim policy.

Table 1 indicates how these databases fit into the restriction categories and pricing schemes mentioned above. The numbers represent databases, not producers or vendors, since licensing agreements vary from database to database, even from the same producer or vendor. The total is more than the number of databases represented because some producers and vendors offer
more than one networking option and some have multiple restrictions. Given the University of Houston Libraries' single-building network environment, license restrictions based on the number of potential users were not relevant, and they are not included in Table 1.

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Table 1. CD-ROM License Restrictions and Pricing

<table>
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<th>PRICING</th>
<th>REG. USER</th>
<th># OF WKS.</th>
<th>SIMUL. USERS</th>
<th>NET. LOC.</th>
<th>USER AFFIL.</th>
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</thead>
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<td>0</td>
<td>0</td>
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<td>Base + %</td>
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<td>15</td>
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<tr>
<td>Base + Fee</td>
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<td>2</td>
<td>5</td>
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<td>6</td>
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<td>4</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
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<td><strong>18</strong></td>
<td><strong>7</strong></td>
<td><strong>43</strong></td>
<td><strong>44</strong></td>
</tr>
</tbody>
</table>

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5.0 Conclusion

Out of this rather complicated matrix, is there one clear option that could serve in all situations? Probably not! In fact, it is the existence of options in the marketplace that suggests that different libraries and database producers have different needs and desires. Having a variety of combinations of restrictions and pricing schemes permits more libraries to consider CD-ROM networks than if there were only one solution. However, the variety occurs at the global level (i.e., as one considers all vendors and producers). If any single vendor or producer is examined, the results are likely to include one or, at most, two options.

Despite the already complex nature of CD-ROM licensing agreements, more flexibility is needed from producers and vendors. For libraries to buy into networking arrangements, database producers and vendors must not view libraries as one monolithic entity. What works in one instance will not work in another. It would be helpful to have several options from each vendor or producer to create solutions that are truly effective.

Restrictions and pricing schemes are necessary components of the
symbiotic commercial relationship between database producers and libraries, but alternatives that facilitate the operational management of LANs are more likely to succeed. Short of this end, CD-ROM networking will remain limited in scope, not necessarily because of the cost entailed, but rather because of the difficulty in managing multiple resources with unique and binding license restrictions.

Notes


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