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The Complexities of Electronic Journals

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Abstract:
Electronic journals are available from a variety of sources with varying formats and prices. The growth of technology has produced a range of delivery mechanisms. Variations in quality and accessibility make it impractical for libraries to replace print formats with electronic journals.

Full Text:
SOMETIMES LIBRARIANS and their funders alike feel like abandoning print journal subscriptions. Subscription costs rise steadily while budgets decline, and the journals can be difficult to check in, preserve, and route or circulate. Electronic alternatives seem appealing. [For access to older scholarly journals electronically, see "The JSTOR Solution," p. 42-44.]

For now, only a small percentage of the total pool of scholarly journals is available electronically. These titles may not be as complete or comprehensive as print equivalents; prices may be as high or higher than print journals; and electronic-only versions may not be as rigorously refereed. Print journals from commercial publishers remain dominant. Still, this is beginning to change.

With print, there is little choice about format and payment. With electronic journals, there is a complex mix of options. Those who consider replacing or supplementing part of a print journal collection with electronic alternatives must examine what they get, where they get it from, and how they pay.

Getting pieces of journals

Print journals are usually purchased as an entire title, including all issues within a year. As serials budgets decline, the fastest-growing alternative is to obtain individual articles through interlibrary loan (ILL) or document delivery services. (This relies on good finding aids, such as indexes/abstracts, and the serendipity of browsing is lost.) Electronic journals offer these two options, plus some more choices.

Sometimes articles from several journal titles are bundled together. They may be related titles, either from the same publisher or on the same topic. This is especially prevalent when a distributor contracts with a publisher for distribution rights to many of its titles or contracts with several publishers for electronic rights. Such direct distribution may also be used by a primary publisher that publishes more than one title.

Information Access Company (IAC), UMI, and EBSCO all package multiple magazine titles in a single database offered online or on CD-ROM. For example, IAC publishes the multititle CD-ROM publication Computer Select, which includes many of its popular computing magazine titles. EBSCO's new Collectanea includes a range of magazine titles, as does IAC's Magazine Database and UMI's ProQuest series.

In an electronic environment, a user may request delivery of only that part of a document that meets the search criteria. For example, after retrieving a set of documents that meet a subject search of an online or CD-ROM publication, the user in some search systems may display just selected paragraphs (e.g., "lead paragraph"), or selected pages (e.g., "first page"), or selected portions (e.g., "KWIC") of documents. A web search engine may land the searcher several pages down from a document's homepage. The implications of partial document retrieval on scholarship are as yet unknown, but some observers fear it may lead to the distortion of ideas.

Where to get journals

Authors now may choose to distribute their own works, exclusively or in addition to other distributing agents. This is more popular since the Internet has become a viable delivery mechanism, but it still has pitfalls. Authors may distribute preprints or reprints of

articles they publish elsewhere in refereed journals, but they may also put on their web sites materials that have not undergone the peer review process. Sites may disappear when an author changes jobs or loses interest.

Primary publishers are those commercial organizations, scholarly societies, universities, or other entities that are directly responsible for soliciting, editing, packaging, and distributing intellectual property. Primary publishers of scholarly journals offer quality control via the tradition of peer review. Libraries may serve as publishers and/or distributers of electronic publications.

A primary publisher may choose to allow a second party to distribute its intellectual work. As mentioned above, UMI, EBSCO, and IAC get permission from a variety of publishers to distribute their materials electronically. A royalty, typically based on use or units sold, is paid by the second party to the primary publisher. Document delivery services also fall within this category.

A third party vendor may contract with a second party to distribute the electronic publications for which the latter has gotten distribution permission. Major third party companies such as DIALOG, LEXIS/NEXIS, or SilverPlatter contract with second parties to distribute their contracted electronic publications through online, CD-ROM, magnetic tape, or other delivery media.

Gateways provide access to third party online services. In this role they offer hardware, software, and telecommunications links only. Telebase's EasyNet gateway links to more than a dozen third party online services, while CompuServe is a gateway to DIALOG's Knowledge Index and other online services. Westlaw serves as a gateway to DIALOG in addition to its other capacities as an online and CD-ROM vendor and secondary publisher.

Delivery mechanism

The mechanism for delivery is dependent on viable technological alternatives. Viable alternatives emerge regularly, such as commercial online in 1971, CD-ROM in 1985, and the World Wide Web in the early 1990s. Rarely do new options supplant the old; they merely add new options. And while the web may make electronic publishing work best, it is not likely to replace other options, especially print.

Directories that identify electronic journals often focus on different delivery mechanisms. For example, Full-text Sources Online (Ruth M. Orenstein, ed. Vol. 8, 2 issues. BiblioData, 1996; 617-444-1154 or E-mail: <ina@bibliodata.com>) lists journals available on commercial online services such as DIALOG and LEXIS/NEXIS. The 1997 edition also includes URLs for those titles with a web version.

The ARL Directory of Electronic Journals, Newsletters, and Academic Discussion Lists describes Internet-based sources (Dru Mogge, ed. Association of Research Libs., 1996; 202-2962296; or E-mail: <pubs@cni.org>.)

Gale publishes separate directories for commercial online, locally held, and Internet databases (Gale Directory of Databases. Vol. 1: Online Databases. Vol. 2: CD-ROM, Diskette, Magnetic Tape, Handheld, and Batch Access Database Products. Vol. 3: Gale Guide to Internet Databases. 1997. Gale, 800865-GALE or E-mail: <americas-info@list. thomson.com>).

To keep up with new developments, check out the comprehensive bibliography web site maintained by Charles W. Bailey Jr. ("Scholarly Electronic Publishing Bibliography," Univ. of Houston Libraries, 1996. <http://info.lib.uh.edu.proxy.lib.utk.edu:90/sepb/sepb.html>).

Pricing policy

Supplier policies regarding price, terms, and conditions may differ among purchasers (e.g., individuals, public libraries, private libraries).

Recent web hype has led many to believe that "electronic journals" are free. Actually, journals that bear no direct cost to the user are uncommon among scholarly publications, but some World Wide Web journals, especially those published directly by authors, universities, or libraries, may be offered at no cost above the Internet access costs. This is typical also in many ILL situations, where the supplying library may not charge the "purchaser" (the requesting library) to supply a copy of an article. The original publisher of the item in question may or may not receive a copyright payment.

Flat fee subscriptions offer the purchaser unlimited usage rights within the constraints of the contract and the Copyright Act. The most common pricing policy for print periodicals, this is also common among consumer online services such as CompuServe, Prodigy, and America Online or Internet-based journals. Additional usage or premium materials may be charged under a different pricing policy.

To set prices by potential users, sellers calculate the total number of people within the purchaser's organization or constituency. For example, if a university has 25,000 students and 1000 faculty members, the total number of potential users or people in the organization would be 26,000. The purchase price (usually per year) would be based on that number. In this example, Encyclopedia Britannica has charged $1 per potential user, or a yearly access fee of $26,000.

These charges may seem unfair to public or university libraries with large constituencies. A public library system serving a total population of two million people may be charged for each of those two million (or the smaller number of those with library cards), but the likelihood that many of those people will use one publication is remote.

A variation on this is to set the price based on the number of likely users within an organization. This is usually regulated by the number of passwords issued.

The number of simultaneous users can be limited by the number of online ports allocated to a purchaser, or the number of simultaneously active online passwords, or by a contractual agreement that limits the number of workstations connected to a CD-ROM or locally loaded system. This is becoming a fairly popular option in libraries because they can adjust their costs based on a title's popularity.

Payment by usage can be inexpensive for individuals or organizations that are infrequent users of electronic publications priced this way, but very expensive for heavily used items. It was the standard way to access commercial online resources from the early 1970s until the early 1990s and remains fairly common in the online world. Payment by usage can also be calculated by connect time; computer resources used; number, size, or type of databases selected; documents or parts of documents viewed; or by a combination of all of these.

Although document viewing may be considered part of payment by usage fees, some systems only charge for the documents selected by a user to be viewed or delivered in full. This is typical of document delivery services that use FAX or other methods of document transmission. Some online services (e.g., Dow Jones News Retrieval and UMI ProQuest Direct) are moving in this direction, although they also typically include some usage fee at least for telecommunications.

Can we replace print?

Ruth Pagell, director of Emory University Library's Center for Business Information, Atlanta, echoes many librarians when she says, "I would love to get rid of print journals" and replace them with electronic access. "I hate microfiche, I hate the binding process, I hate the space requirements, but we can't replace print with electronic versions yet" (see Jeff Barry and Carol Tenopir, "The Evolving Database Marketplace," LJ Reference '97 Supplement, November 15, 1996, p. S68-S72).

We can't replace print journals yet because only a fraction of scholarly material is available electronically. What is available varies in quality, accessibility, and price. In addition, an electronic "equivalent" of a print title may be less complete than print, excluding articles for which the author maintained copyright and excluding letters-to-the-editor and other material.

Pagell was one of the first to document the deficiencies of electronic full texts. She says now "the situation has gotten more complicated" because there are so many competing electronic full-text products on so many different distribution media. Librarians' role as serials selectors now includes decisions on content, medium, pricing policy, and weighing complex alternatives.

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