President — Academic Press.

by Tom Gilson (Head, Reference Services, College of Charleston Libraries) <gilson@cofc.edu>

ATG: What future do you see for online reference sources, encyclopedias, dictionaries, etc. both at Academic Press and in general?

PB: In many respects the Web is an ideal reference tool. One of the difficulties is the uncertainty about the quality of the reference sources that can be found on the Web. Our reference program is critically acclaimed and the challenge in migrating it to the online environment is to find out what value can be added beyond the enhanced search and retrieval capabilities. Having it on one platform will allow us to interlink individual works as well as link with other information sources on IDEAL (e.g. our journals, science dictionary, InSight etc. and, in the near future, our book serials and textbooks). A bit further in the future we would like to link to sources on other publishers’ platforms as well: in an ideal (IDEAL?) world the users (be they scientists, students, professionals or members of the general public) should be able to navigate quickly to pertinent information on a topic of their choice, at a level and degree of detail appropriate to their need at that time. It is the collective publishers’ responsibility to make this possible, not only technically, but also, and perhaps especially, commercially.

ATG: At an ALA conference a couple of years ago, we got the impression that Academic Press would make a major move toward offering its encyclopedias online. It hasn’t happened. What gives?

PB: It took us a while to get it off the ground, but it is happening now. In fact, two encyclopedias are already online (Encyclopedia of Human Nutrition and Encyclopedia of Immunology), three more are scheduled for 1999 (Virology, Food Microbiology, and Spectroscopy and Spectrometry) and many more are planned in the years to come (see www.academicpress.com/reference for more information). The online reference program is called IDEALReference and will be launched officially in 2000. Licenses will be sold to consortia along lines similar to our journal program on IDEAL. The reference works will also be available separately as print/electronic combos.

ATG: Academic Press is also making a significant commitment to e-journals on IDEAL. Do you think you will be publishing print journals in five years? Can the market support both print and electronic versions of the same journal?

PB: Yes, we are definitely committed to e-journals on IDEAL. In fact, we expect to be able to offer most medical journals from our sister companies on this platform in the course of the year 2000. We define “a scientific/medical journal” as a “collection of authenticated peer-reviewed” official (“sworn”) statements (articles) by research scientists, characterized by a certain scientific/medical (sub)discipline and a “stamp of quality”. Collectively the journals form the ever-growing official scientific archive: “the minutes of science”. As such they are as important for authors (who use them as vehicles to promulgate, and get eternal credit for their achievements) as for readers (who, for their own work, need access to the above-mentioned official statements and who, when they publish themselves, are required to give credit to those ‘on whose shoulders they stand’).

We publish some of these journals. That doesn’t necessarily say anything about the format. We publish them in more than one format as long as that is needed by the user community and as long as it is economically viable. Having said this, there is, of course, the reality that some types of information cannot usefully be disseminated by means of print on paper, such as multi-dimensional visual material, sound, executable software, etcetera. One could include large datasets in this list. They may be printable, but virtually impossible to search or analyze in that form. Eventually, the main mode of dissemination will be electronic. Since there are concerns about the durability and continued wide availability of electronic archiving, a few basic printed archival copies may have to continue being produced for a very long time.

ATG: Does this hold true for your reference publications too? Eventually, will the “main mode of dissemination” be electronic? Do you see print encyclopedias relegated to an archival function? And do you think this trend is unique to science publishing or is it the wave of the future for the social science and humanities as well?

PB: Reference works, by their very nature, contain compacted and consolidated knowledge in some sort of context. As such, they usually give a unified view and “state of the art” of a given topic or range of topics at a particular point in time. Journal articles, on the other hand, are the “sworn statements” I was referring to earlier and they contain, by definition, something that was not known before. That is why the name of the author(s) is inextricably connected with them (the “eternal credit” mentioned earlier). The context is provided by what went on previously (i.e., at “different points in time”). That may have a consequence for archiving. One can argue that archiving of a reference work is, although perhaps historically interesting, not that important; a new edition will replace and subsume the previous one. Primary journals, however, contain the original building blocks of scientific knowledge and may contain information whose importance and relevance is not realized until much later. For instance, modern 20th century physics rests, to a significant extent, on mathematical techniques “discovered” in the 19th century and these can thus be said to have become relevant much later. It would appear, therefore, that one can archive reference publications by “edition,” if one wants. Because of the rapid dating of the consolidated knowledge contained therein, one would probably only want to do this on paper. What’s the point of doing this electronically, especially if the next edition has arrived or a better one has been published? There is a snag, however. What happens to the links from the primary literature to these dating reference works? Are these links dying when a new edition of the latter appears—especially as the text/article in question may have been cut out altogether from future editions, rather than updated? Or are the links (automatically) updated, and if so, how? Maybe we will have to accept that such links cannot be electronically guaranteed.

If the above reasoning is even approximately correct, there seems no reason to assume that this will be different in the social sciences and humanities. The “archival value” would appear to depend on the function of the published information: primary literature (i.e., reporting new knowledge for the first time) needs to be archived and linked to in perpetuity. Secondary and tertiary literature (whatever the definition) does not seem to have the same needs. In the sciences practically all primary information is published in journals. However, that is not necessarily the case in the social sciences and humanities. That is why it appears to be important to look at the function, not the medium (book or journal).

ATG: You use a unique pricing model for IDEAL. For those unfamiliar with IDEAL can you explain the service itself, and how you developed your pricing?

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PB: IDEAL (International Digital Electronic Access Library) is the content platform we use. At the moment it is mainly populated with journal articles, but, as indicated above, we will be adding reference works, other books, databases, and the like. The business model for access to the journals on IDEAL is known as APPEAL (Academic Press Print and Electronic Access License). The underlying thought in designing the APPEAL scheme has been that we want to let our customers take advantage of the unique (cost) characteristics associated with electronic production and dissemination while, at the same time, preserving our level of profitability. While the costs of creating the “database,” setting up the infrastructure, servers etc. and of linking are much higher than some people (including librarians?) seem to imagine, they are largely fixed in the sense that the extra costs associated with giving more users access are, within broad limits, very small. In addition, it is possible to tailor access to our material, something that is, of course, impossible with the print product. This allows us to give, in an institutional setting, virtually free access to all our digital journal material, once our fixed costs are covered. As a result, we lifted the restricted access to single journals, which is a practice integral to the print subscription model. In an APPEAL consortia license, all bona fide staff and all students of the constituent institutions are “authorized users” and have unlimited and unfettered access to every article in every journal on the system (for the years licensed). Because we wanted to preserve our profitability (see above), the pricing was originally based on the collective print subscription holdings of a consortium. This is now evolving. In future, pricing is likely to be based on a measure of the size of institutions (e.g., the number of research staff, teaching staff, students), the usage patterns (views, downloads), the span of an institution’s research interests, and possibly the number of papers published on a yearly basis by research staff at the consortium’s institutions. The latter would reflect the economic pressure that the scientists’ need to publish puts on the “edifice” of primary science publishing. The same principle underlies the idea of author submission or page charges, a notion that gained currency again in the discussion about E-biomedia.

ATG: It seems to us that the way the pricing for IDEAL is structured it encourages libraries to keep their paper subscriptions, or at least, does not offer significant savings to libraries that drop their print subscriptions. Your reaction?

PB: Our model actually permits and encourages libraries to manage their print collections separately from e-access. An academic library could cancel some of its print (generally in the second year of a license) and come out with a lesser total cost. In a consortia, one library could be designated to maintain a printed archive. At the same time, the Deeply Discounted Print Prices that are available for licensed institutions (75% off) are encouraging other cost centers in the institutions to maintain print subscriptions, which, when all is said and done, have their continuing utility and charm. We do not subscribe to the notion that the tight library budgets must be seen in isolation. They should be seen in the context of research spending. And they must be seen in the context of proper and comprehensive access to research findings. If one sees the APPEAL price in comparison to print subscription prices as an amount paid per article available, then it becomes immediately clear what the benefits of the APPEAL license are. Our starting point is giving more access for the money, taking away restrictions, not savings on already restricted access to research information.

ATG: Archiving is a big concern for librarians. What are your plans for archiving the electronic journals in IDEAL? Do you plan on going back farther than 1993?

PB: Archiving is a concern and a question with which the whole science community and publishing community still wrestle. There are no easy solutions. We are studying the implications and economic viability of making older material available electronically, and are working on this with organizations such as JSTOR, OCLC, the British Library, and others. We do plan to go far back before 1993 if we see a “market demand” or a “citation demand” for it.

Let me explain the latter notion first. If it is true that the electronic version of the “scientific edifice” mentioned earlier is going to consist of, among other things, interlinked articles, new links will continually be established between new articles and the ones in the archive. To make that work, the archival articles will need to be in a “linkable to/from” state. The responsibility for building this “interlinked edifice” lies with the collective publishers. (Academic Press is actively involved in setting up such a cooperative system.) It is a crucial added value in the “electronic era.” It follows logically (I think), that publishers will also be responsible for creating and maintaining their articles in such a linkable state. If this principle is accepted, it immediately provides a convenient selection criterion for converting paper archives: first convert those articles for which there is this “citation demand,” so as to bring them in this up-to-date electronic “linkable state.” Similarly, an added selection criterion exists when one wants to get involved in electronic document delivery (“market demand”). Needless to say, this looks like a much more effective and economical procedure than converting journal print archives on a year by year basis.

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URL Phoenix University (of San Francisco) falls into the same category of for-profit, no campus institutions interested in making money in higher education.

Today we also have the first distance learning law school in the nation...Concord University School of Law. Concord runs the risk of never being accredited by the American Bar Association since it does not meet the ABA guidelines of requiring schools to have physical libraries. Still, Concord is trying to become respectable. The Boston Globe reports Concord named Harvard Law Professor, Arthur R. Miller, to the board of faculty advisors.

Another twist to distance learning has been created by Berry Fowler, founder of Sylvan Learning Centers. Mr. Fowler offers tutoring from teachers’ homes at a cost of $18 to $22 per hour. The program is termed “A Thousand Points of Knowledge.” Retired teachers and other professional will act as the tutors. (Mr. Fowler sold Sylvan Learning Centers in 1985 and is now competing with those same Learning Centers.)

Sylvan itself has launched its own network of private, for-profit colleges overseas and has recruited a former director of the United States Information Agency to run the network.

What can we learn from this?

First, there is money to be made in higher education. Second, traditional publicly-run schools have to be innovative in order to compete. Third, teachers will be in demand but have to polish their skills, be innovative, and technologically literate. Fourth, accreditation guidelines will be under pressure to change for this new medium. Fifth, public institutions will benefit from enlisting assistance for new program initiatives. Sixth, multi-million dollar contracts will be awarded to develop professional accreditation/exam systems. Seventh, foreign governments will be experimenting to expand their educational offerings.

What will be next?

Future articles on distance learning will address publishers’ reactions to this concept. Are students benefiting? Is distance learning cost-effective? What is the effect on teachers’ unions? How are professional librarians affected? Does copyright affect distance learning?

Put your own two cents into this discussion. Send comments to efennessy@att.net.

See the On the Street — this issue — p. 65 — for more on this topic.

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