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The Way Forward: An Overall Perspective

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THE WAY FORWARD:
AN OVERALL PERSPECTIVE

CAROL TENOPIR

Abstract
Consortia in the U.S. and U.K. have different histories and different purposes. In addition to negotiating site licences for electronic resources, consortia provide continuing education, inter-library borrowing, infrastructural support, and other services. For electronic resources they also facilitate demonstrations of new products, invoice processing, and usage statistics. Consortia may negotiate discounts on electronic products due to the greater number of users. Some of these site licences may be 'Big Deals' for publishers—that is they require the consortia to purchase all titles from a publisher. Availability of additional journal titles results in users reading articles from journal titles they did not have access to before, but the amount of this reading is uncertain. Such 'all or nothing' big deals are beneficial to libraries only in times of increasing or steady-state budgets. From the library's standpoint, deals that provide access to titles from which their users read many articles should be purchased via a site licence subscription. It is often more economical to pay per view for articles from lesser read titles.

Biography
Carol Tenopir is a Professor at the University of Tennessee, School of Information Sciences, where she teaches classes in information access and retrieval, indexing and abstracting, the information industry, and online searching. Since 1983 she has written the 'Online Databases' column for Library Journal. Dr. Tenopir is the author of over 200 articles and four books, and is a frequent speaker at professional organizations. Her latest book, with Donald W. King, is Towards Electronic Journals: Realities for Scientists, Librarians, and Publishers, published by Special Libraries Association. She is the recipient of the 1993 American Society for Information Science & Technology (ASIS&T) Outstanding Information Science Teacher Award, the 2000 ALISE (Association of Library and Information Science Educators) Excellence in Teaching Award, and the 2002 ASIS&T Research award. She holds a PhD degree from the University of Illinois.

Introduction
George Bernard Shaw said that 'England and America are two countries divided by a common language'. I began to get the feeling of two countries divided by different definitions or connotations for key concepts as I read the reports for this conference—some of which came from U.K. researchers and some from the U.S. and one from the publisher's perspective, one from the librarian's, and one from the user's. It will be useful to first look at potential differences in the way terms are used to avoid confusion.

Defining consortia
'Consortium' itself seems to have a different history and slightly different purpose in the U.S. than in the U.K. As Donald King pointed out in his report, in the U.S., library consortia have a long history that pre-dates electronic resources and site licences. (This may be the only instance where the U.S. can claim a longer history than the U.K.) Library consortia in the U.S. provide educational opportunities in the form of workshops and symposia, and also many services to their members in addition to electronic journals.

For example, according to the King report, consortia offer:
• Interlibrary loan/interlibrary borrowing;
• Shared collections;
• Reference, referral and research services;
• Operational/technical services;
• Support of library development;
• Infrastructure support.

They also play an important rôle in site licence negotiation, but this is a relatively new rôle and only part of what consortia do in regard to electronic journals. As described in the King study, for electronic journals consortia also facilitate:
• Site licence negotiation;
• Volume discounts;
• Demonstrations of new products;
• Housing a server;
• Technical consultation;
• Processing invoices;
• Providing user statistics and user authentication.

In the U.K., according to the report from Key Perspectives, some consortia pre-date electronic journals, but most developed mainly due to the need to band together for electronic site licensing. Their purposes are more specific than their counterparts in the U.S. and their history is shorter. According to the Key Perspectives report: “In the UK the impetus [for consortia] arose directly as a result of the Follett Report published in 1995 which stimulated the JISC (Joint Information Systems Committee) to launch its NESLI (National Electronic Site Licensing Initiative) licensing scheme for higher education establishments, raising awareness in the libraries of the opportunities ahead.”

Negotiating site licences is important, but is clearly not the only role for consortia.

Defining the ‘Big Deal’

Another source of confusion might be the so-called ‘Big Deal.’ One view of the Big Deal in these reports is from the publisher’s perspective looking at libraries. It is ‘big’ in the sense of many libraries banding together to get the advantages of critical mass for a licence agreement. For example, according to the Key Perspectives report, the Big Deal—publishers negotiating consortial licences with large libraries or groups of libraries formed into consortia—has emerged as a dramatic new activity.

When Kenneth Frazier of the University of Wisconsin-Madison first used the term ‘the Big Deal’, he used it in a slightly different sense. He described the Big Deal from the viewpoint of libraries looking at publishers. According to Frazier:

Simply put, the Big Deal is an online aggregation of journals that publishers offer as a one-price, one size fits all package. In the Big Deal, libraries agree to buy electronic access to all of a commercial publisher’s journals for a price based on current payments to that publisher, plus some increment. Under the terms of the contract, annual price increases are capped for a number of years.

The Big Deal usually allows the library to cancel paper subscriptions at some savings or purchase additional paper copies at discounted prices. But the content is, henceforth, ‘bundled’ so that individual journal subscriptions can no longer be cancelled in their electronic format. (Kenneth Frazier, ‘The Librarians’ Dilemma: Contemplating the Costs of the Big Deal,’ 7 D-Lib Magazine (3, March 2001). http://www.dlib.org/dlib/march01/frazier/03frazier.html)

The Big Deal to librarians like Frazier is when publishers insist on bundling all of their titles into one package and do not let individual libraries use their collection development expertise to pick and choose only the titles they want. What publishers perceive as not only good business sense, but as a good deal for libraries to expand their offerings, some librarians perceive as usurping one of their primary functions and locking them into agreements for titles they don’t want. Big Deals usually, but not necessarily, involve consortia. The
differences in these two approaches are subtle, but I think it is important to show how sometimes publishers and librarians are two entities (or countries) divided by common interests.

This may be nit-picking, but the understanding of these key concepts colours the rest of my remarks. When someone asks: "is the Big Deal dead?" (or should it be?) I have a different response depending on how you define 'Big Deal'. Similarly, I have a different response to the question, will (or should) consortia thrive?

**Advantages and disadvantages of consortia and Big Deals**

Consortia, in the broader sense of multiple-purpose organizations that bring many different libraries together, have many advantages for both libraries and publishers. In addition to offering a wide range of services to libraries of all sizes and types, they provide a focal point for publishers to offer marketing, education, licensing, and invoicing. It is in the best interest of libraries and publishers that multi-purpose consortia thrive.

The sense of 'Big Deal' that is sometimes used in these reports, to mean a consortium negotiating and facilitating site licences, is a desirable and sustainable model (but the term 'Big Deal' originally was not used in this sense).

Big Deals in their original narrower sense (that is 'all or nothing' for subscribing to a package of a publisher's journal titles) have some problems, however, when libraries are not allowed to choose to opt out of certain titles. Initially, Big Deals look very good for publishers, especially large publishers who have market domination in a subject. They ensure continued access to the full range of a publisher's titles and use the highly-subscribed titles to bring the less popular ones along for the ride. In times of plenty or steady-state budgets Big Deals are good for libraries as well, in particular medium-sized, or small libraries. They provide access at a bargain rate to resources the library would never be able to subscribe to without the consortia or without the Big Deal from the publisher. All of the titles, popular and marginal alike, will get some use by some members of a consortium.

In times of budget downturns, however, problems begin to arise for libraries that have Big Deals. If individual journal titles from a publisher cannot be cut, cuts have to come from elsewhere. This means cutting monographs or non-Big Deal titles, even if the librarians feel those resources are a better choice for a library's constituency. This can hurt smaller publishers immediately. Although it provides protection to the Big Deal publisher in the short-run, in the long-run libraries may choose the 'nothing' end of the Big Deal rather than continue to provide a disproportionate number of journal titles from a few publishers. In other cases, the ill-will is just not worth the temporary gains from a forced Big Deal. For those individual libraries that want this bargain-access to a full range of a publisher's titles and that have a large enough user base to justify it, the Big Deal is a good deal. Other libraries should be able to opt out on a title by title basis (but cannot expect the same bargains).

**What usage data tells us about Big Deals**

Do Big Deals result in large amounts of reading by library-users from the peripheral journal titles that get 'thrown in' with the more popular titles? The jury is still out. Data from OhioLINK suggest that titles to which a library does not subscribe in print get high use and, sometimes, more use online than titles for which a library has a print subscription (Sanville, 2001; Diedrichs, 2001). Even in the largest OhioLINK library (Ohio State University) Diedrichs reported that 40% of the journal titles from which articles were downloaded in the Big Deal were not previously held in paper by the OSU library. In smaller libraries the percentages were much higher, with a majority of journal titles from which downloads were requested falling into the 'previously not-subscribed' category. In this case, Big Deals seem to not only provide occasional access to articles in peripheral titles, on the average they provide extensive use of materials that would not otherwise be available.

Recent analysis of data from the NorthEast Research Library (NERL) consortium suggests otherwise, however. Davis analyzed Academic Press IDEAL aggregate usage data for 2000 and 2001 on a title by title basis for each member library and found that titles not subscribed in print in NERL libraries got "about ten times less use than locally-subscribed titles." A relatively small percentage of journals contributed a high percentage of article downloads and those subscribed to in print by the libraries contributed many more article downloads than the non-subscribed titles. Davis found that usage patterns can vary considerably with type and size of library, with medical libraries quite different from general academic libraries. Therefore, it is difficult to negotiate a single Big Deal that will be advantageous for all members of a multi-type library
Peripheral titles in Big Deals may not get as high an amount of use as reported by some, but they surely get some use by some users. The report by Nicholas and Huntington found that “deal subscribers were more likely to view a greater number of different journals, which is perhaps what the Big Deal is all about...”. They discovered that “Big Deals appear to be working in two ways. Firstly, individual users are viewing more journals...” and “secondly, Big Deal users allow a greater number of people to use the services. On average non-deal institutions have about 2.5 users per institution, deal users have approximately 26 users per institution—these users are likely to have very different research aims and hence will be looking at different journals.” On the other hand, Big Deal subscribers were no more likely to re-visit a publisher’s site than non-Big Deal subscribers.

Tenopir and King (2000, 2002) found that the average number of journal titles from which scientists and social scientists read at least one article per year has increased from 18 in the mid- to late-1990s to 23 in 2000. Only half of the journal titles result in five or more articles being read and only one is read more than 25 times in a year. The increase in the number of journals from which at least one article is read each year is almost certainly due to both the decrease in personal subscriptions and to more widespread availability of electronic separate articles and journals.

Libraries must consider the cost-effectiveness of subscribing to peripheral titles versus purchasing occasional articles from peripheral journals on a pay-per-view basis or through interlibrary loan/borrowing. Readers clearly at times need access to more than their core titles. Good abstracting and indexing services (bibliographic databases) provide readers with knowledge of potentially relevant articles from a wide variety of journal titles. Libraries must then provide an easy link to the full text of articles that users select. Standard linking schemes such as CrossRef make this possible. The best way for a library to pay for these full texts is at issue, however. Big Deal subscriptions may be less cost-effective for some libraries and some titles than pay per view or inter-library borrowing on an article-by-article basis.

Tenopir and King (2000) provide breakeven-point formulas for libraries that demonstrate the relationship between subscription price and number of article requests. These breakeven points show when it is more cost-effective to pay per article and when it is more cost-effective to take out a subscription (see Table 1). For example, for a $500 per year journal in a special library, the breakeven point is approximately 30 readings, meaning that if this journal title receives more than 30 article readings in a year it is less expensive for the library to subscribe to the journal than to purchase article separates. For a $1000 per year subscription price, the breakeven number of readings in the typical special library goes up to nearly 57 readings. Obviously many things factor into this decision, including subscription price, per-article price, internal library costs, and estimated number of article-requests per title. All costs on which these breakeven points are based are given in Tenopir and King, 2000.

<table>
<thead>
<tr>
<th>Institutional price</th>
<th>Breakeven point in number of readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100</td>
<td>9.5</td>
</tr>
<tr>
<td>$150</td>
<td>12.1</td>
</tr>
<tr>
<td>$250</td>
<td>17.3</td>
</tr>
<tr>
<td>$500</td>
<td>30.4</td>
</tr>
<tr>
<td>$1000</td>
<td>56.5</td>
</tr>
</tbody>
</table>


How much scientists read, and other reading patterns, can vary considerably by academic discipline and workplace (Tenopir and King, 2000, 2002) (see Table 2). Engineers, for example, tend to read fewer journal articles than scientists and social scientists, but spend more time reading the article they decide to read. They also rely on other materials such as patents and technical reports. Physicians in academic institutions tend to read many more journal articles than the average scientist, but read them relatively quickly (an average of approximately twenty minutes per article).
Table 2: Scholarly article readings by workfield and workplace. Tenopir and King, 2002.

<table>
<thead>
<tr>
<th>Workfield and workplace</th>
<th>Article readings per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineers in a government laboratory</td>
<td>72</td>
</tr>
<tr>
<td>Physicists in a government laboratory</td>
<td>204</td>
</tr>
<tr>
<td>Astronomers (members of the American Astronomical Society: AAS)</td>
<td>231</td>
</tr>
<tr>
<td>Chemists in a government laboratory</td>
<td>276</td>
</tr>
<tr>
<td>Medical Faculty in a university</td>
<td>322</td>
</tr>
</tbody>
</table>

The reliance on electronic journals, e-print servers, and other electronic sources for documents also varies, depending on the availability of electronic alternatives in a subject and traditional work habits in a workfield. Nearly 80% of readings by astronomers, for example, are from electronic journals or pre-print services, but most of those readings come from the electronic journals published by their main professional society, the American Astronomical Society (see Table 3.)

Table 3: Electronic and print articles reading. Tenopir and King, 2002.

<table>
<thead>
<tr>
<th>Readers</th>
<th>e-journals</th>
<th>e-prints</th>
<th>other elec.</th>
<th>total elec.</th>
<th>print</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS Members</td>
<td>52.7%</td>
<td>21.6%</td>
<td>5.3%</td>
<td>79.6%</td>
<td>20.4%</td>
</tr>
<tr>
<td>National Laboratory</td>
<td>17.3%</td>
<td>3.6%</td>
<td>14.0%</td>
<td>34.9%</td>
<td>65.1%</td>
</tr>
<tr>
<td>University Faculty</td>
<td>15.0%</td>
<td>-15.0%</td>
<td>5.0%</td>
<td>-35.0%</td>
<td>-65.0%</td>
</tr>
</tbody>
</table>

These differences in reading patterns were also found in the SuperJournal project (Pullinger and Baldwin, 2002.) In the light of the differences among types of libraries as found by Davis, these variations in reading behaviour make it difficult to justify forced Big Deals with multi-type library consortia.

The definitive answer

No-one has the definitive answer to the question posed by this meeting: ‘The consortium site licence: is it a sustainable model?’ Yet evidence from the reports submitted for the conference and other research suggests that both consortia and site licences will undergo some change in the next few years. Consortia, which have a long history and many purposes, will survive but may be reconfigured. Davis, Peters, and Sloan suggest that consortia with members that share a common purpose (rather than a geographic place or a desire just to get a good buying deal) are more likely to survive. Consortia of medical libraries, for example, can negotiate site licences that are best for all of their members as they have similar needs that are quite different from those of other libraries.

Site licence negotiation remains an important function for consortia because such negotiation is time-consuming and requires special expertise. Consistent site licence terms and expectations make the process more predictable for all participants and the work of groups such as the International Coalition of Library Consortia (ICOLC), the IFLA Licensing Principles, and LibLicence are essential.

There is growing evidence, however, that the ‘one size fits all’ type of licence is not desirable. Harris has written a book that helps librarians negotiate site licences for digital content. Her practical advice concludes “There is no one right way. The best agreement is the one that meets your library’s needs and builds a strong relationship with the content-owner. Both sides are aiming at fair access at a fair fee” (pg. 116). Big Deals that bind all members of a consortium to all of the titles offered by a publisher, with an ‘all or nothing’ clause, cannot survive for long. Although they are good deals for some libraries, a forced ‘all or nothing’ model is not viable in the long run for many institutions.
Ingenta reports examined for this presentation


*Library Consortia Research: Library and Publisher Studies*. Key Perspectives Ltd., July 2002.

Nicholas, David and Huntington, Paul. *Results and Analysis from a Pilot Analysis of Web Log Data*. City University, September 2002.

Other references


