Title	Digital Library Consortia in the 21st Century: The Hong Kong JULAC Case
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Citation	Collection Management, 2002, v. 27 n. 3-4, p. 13-27
Issued Date	2002
URL	http://hdl.handle.net/10722/90419
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Digital Library Consortia in the 21st Century: The Hong Kong JULAC Case

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ABSTRACT. The article outlines the initiatives of the local consortia of the eight academic institutions funded by the University Grants Committee (UGC) of the Hong Kong SAR Government. The role and services that this consortium provides for its members, especially with respect to consortial electronic purchasing agreements and joint licensing, are examined. The paper addresses many of the problems, difficulties, and challenges within consortia when coping with their internal needs, facing the need to both cooperate and compete with other consortial members, and making individual and consortial decisions in an environment of increasing budgetary constraints and technological advances. Case studies are used to illustrate each of the challenges mentioned above.

KEYWORDS. Library consortia, consortia challenges, consortia purchase, JULAC (Joint University Libraries Advisory Committee), collaborative collection development, resource sharing

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INTRODUCTION

Librarians have actively tried to collaboratively build collections since the aftermath of World War II when they found that they needed each other to make up for the losses produced by that event. While librarians have dealt with all sorts of philosophical and operational challenges, from the library patron's point-of-view, the major problem has been that it takes

longer to access an item stored at another library than at their local library. The collaboratively selected item just cannot be in two places at the same time. Consequently, front-line librarians who must face the wrath and disappointment of library patrons, have avoided relying upon each other for important titles and subjects and instead focused on sharing lesser used materials.

The Research Libraries Group (RLG) system of only assigning primary collecting responsibilities for topics collected at the research level by fewer than three libraries is one example of shying away from collaboratively building collections in high use areas and interlibrary loan is another case in point. Librarians employ interlibrary loan for titles and subjects needed less than those purchased and placed in the collection. Indeed, the staff costs associated with interlibrary loan transactions are significant enough in the short run that once an item is borrowed more than **twice**, it is cheaper to own **a book** than to borrow them repeatedly .[1] **(REF ?)**

Today, however, collaborative collection development has undergone a paradigm shift because of the Internet, which permits collaboratively selected digital materials, stored on a single server, to be used simultaneously by patrons at many locations (e.g., they can figuratively be in two places at the same time). As a result, digital consortia are the growth phenomena of libraries in the 21st century. The purpose of this paper is to further discuss the reasons for digital library consortia growth, the remaining challenges that must be overcome, and to illustrate these reasons and challenges by examining the growth and development of the major academic library consortia in Hong Kong: the Joint University Libraries Advisory Committee (http://www.hkbu.edu.hk/julac/).

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[1] Since the ARL ILL/DD study indicated the average borrowing cost was $18.35 for each transaction, if a book was borrowed three times, in addition to user inconvenience, the library would have spent at least $55 more than the average price of a book when they study was completed. See http://www.arl.org/access/illdd/illdd.shtml.

MAJOR REASONS FOR THE GROWTH OF LIBRARY CONSORTIA

In addition to the Internet making it possible for consortia to select and purchase materials to be simultaneously accessed by users from more than one library, there are several other reasons for the rapid growth of digital library consortia during the past few years:

- Demand for digital products. There was a time when libraries did not yet have the critical mass of digital titles to create the demand for these titles. But now users in libraries like those in Hong Kong simply expect full-text electronic resources and databases to be accessible anywhere anytime. Because licenses that are sponsored by consortia help libraries meet this demand, **it is our personal observation that** internationally consortia are growing in number. [2] **(REF?)**
- Attractiveness of package offers. While librarians were initially fearful of discarding the old model of buying one journal at a time (many still are), e-journal packages that are licensed by consortia have proven to be so popular with users, the demand for consortia to negotiate access to such packages has remained strong.
- Reduced per unit cost of information. In most cases, individual institutions pay more for electronic resources than libraries subscribing via a consortium. Most libraries believe large consortia have been successful at leveraging their collective buying power with publishers and have required/encouraged/cajoled publishers to provide initial purchasing incentives. **(REF)**
- Sharing of staff expertise. The purchase of digital resources involves human negotiating skills as well as expertise dealing with a host of technical issues including copyright, digital archiving, hardware and software considerations, cost models, and licensing

[2] See also http://www.library.yale.edu/consortia/2001currentpractice.htm for a February 2002 list of ICOLC membership.

language. Few libraries have staff members with all or even the majority of these skills. By pooling such human resources within the context of a consortium, however, member libraries are usually able to find the right people with the right skills and to be successful. To a degree, libraries are able to literally outsource such tasks as negotiation, copyright, and license review, to other members of the consortia.

- Power to influence standards/publisher behaviour. Mega consortia like the International Coalition of Library Consortia (ICOLC) is an example of a group that is not only able to exchange information about products and vendors but it is also able to promote a variety of standards to be followed by vendors and publishers (http://www.library.yale.edu/consortia/).
- Benefits to publishers. Publishers initially seemed to view consortia as necessary nuisances. Now, however, they appear to truly appreciate the fact that they can penetrate the market faster by dealing with fewer people to market, negotiate, and maintain their customer base. They can disseminate new product information about pricing, trials, and training opportunities using consortia web sites and list-serves. These activities are particularly successful when consortia are centralized and well organized.

THE MAJOR CHALLENGES FACING LIBRARY CONSORTIA

Just as the benefits of consortia membership are multiple, so are the challenges that must be overcome if the academic digital library consortium is to be successful:

Collaboration takes time and energy

Collaboration, as someone once said, is an unnatural act. It is natural for institutions to be concerned with protecting their own interests but unnatural for them to voluntarily compromise their interests. Even if consortia representatives agree to work together, because of

differing needs and capabilities, getting them all to arrive at the same decision is difficult, thus making the purchase of a database very time consuming. This has proven true in the case of library consortia of all sizes and perhaps the larger the organization, the more complex the decision making process can become. There are lots of administrative issues to be resolved among members concerning division of labour. From the time an electronic resource is identified to soliciting interest from members libraries, these tasks include arranging trials or demonstrations, evaluation of the product, review of licensing terms, negotiating with vendors to obtain acceptable pricing models/mechanisms, calculating the budgetary impact of these models, negotiating the best price, determining billing and payment processes, how the costs are to be decided among member libraries, and determining how access will be controlled and monitored. Once the agreement is finalized and signed, the management of the license agreement, obtaining usage statistics, and communicating member library complaints and problems to the publishers and vendors continue to require time and energy.

Based upon our combined experience working with consortia in North America and Hong Kong, this slowness is too much for some libraries. Libraries with significant resources frequently want to get the information to their users as soon as possible and do not want to spend a lot of time haggling over prices or licensing points. Poorer libraries, on the other hand, are more than willing to negotiate indefinitely in hopes that the provider will give up and reduce the price to a fraction of the list price. Similarly, some librarians who are particularly passionate about forcing the provider to change some bit of licensing language are also willing to hold up the agreement for long periods of time. **(REF)**

Insufficient buying power

A major goal of most digital library consortia is to lower the per-unit cost of information: everyone wants to save the library money, except the producer of the information. More business is the one ingredient that consortia can bring to the bargaining table to get the vendor to reduce their price. However, if a provider already has separate agreements with all or most of the consortia membership, why would they want to reduce their prices? Consortia, therefore, have to find ways of providing the publisher/vendor with more clients or more business from the same clients.

Overlapping consortia memberships

The pursuit of new members, however, can produce another challenge when expanding consortia pursues the members of other consortia. This provides for divided loyalties and a certain amount of tension. The push for member libraries to buy more to expand the amount of business given to a vendor or publisher can also create anger and frustration. Some librarians within the consortia may begin to suspect that others have crossed the line, and have begun to act more like representatives of the publishers, than as representatives of their libraries.[3] **(REF)**

Lack of staff with the right skills

While consortia do bring the talents of many different people together, it does not mean that the required skills are present. Negotiating skills, the ability to effectively review licensing agreements, a degree of library automation knowledge, etc., are all needed to be successful and are still lacking in some consortia.

Differences in benefits accrued

Some libraries for a variety of reasons are offered prices that are below those offered to the consortium and this erodes the sense of solidarity that is needed to negotiate effectively. This

happens frequently when the favored library's name can be used for marketing purposes or when the volume of past business is such that the provider wants to reward them for past business and motivate them to continue to spend significant resources. When such libraries are given a better offer than they would get through the consortia, the reasons for taking part in the consortia's agreement become very thin.

Another difference in benefits accrued relates to differences in the amount of new content realized through a consortia agreement. When everyone gets access to all journals owned by any member library, but most of the journals are owned by only a few of the consortia's members, it makes these libraries question the value of the participation.

Differences in needs/interests

Not all databases or digital resources are of equal interest to every library and so getting the needed volume of business to get a reduced price or other compromises sometimes proves impossible. Furthermore, digital packages do not interest everyone. Some libraries are attracted to comprehensive package deals because they offer significant amounts of information for marginal increases in expenditures. For librarians/faculty at other libraries/institutions, however, the very idea that one would abrogate their responsibility to select each and every title personally is an anathema. Frequently, vendors want to sell it all or nothing because they want more money and customized lists in the digital world mean developing complex authorization schemes, more staff time, etc., all of which seem to signal extra costs.

Budget size/flexibility differences

This challenge **(please describe this challenge here—I don't think it is clear enough from the section heading)** seems almost too obvious to mention. Yet, it is a significant problem

[3] When netLibrary was initially begun, I (Ferguson) actively promoted the use of this package of ebooks. I was contacted by two different librarians suggesting I was acting more like a representative than a librarian. I received

for even wealthy libraries, some of which have already allocated all of their funds to other purposes (e.g., departmental monographic or serials purchases). Many large libraries do not set aside significant amounts of funds at the beginning of the year to purchase digital titles as they appear. Small libraries have such small budgets that they cannot set aside funds that could be used as new products are announced. Another variation of this same problem is the lack of multi-disciplinary electronic funds with which to purchase multi-disciplinary electronic packages of information without laborious negotiations to put together the needed shared funds.

LIBRARY CONSORTIA IN HONG KONG

The Joint University Libraries Advisory Committee (JULAC) is a local consortium of the eight academic tertiary institutions funded by the University Grants Committee (UGC) of the Hong Kong SAR Government. The committee was first set up in 1967 to discuss and co-ordinate the collaboration on resource sharing and services among the libraries of the following eight institutions:

- City University of Hong Kong
- Hong Kong Baptist University
- Hong Kong University of Science and Technology
- Lingnan University
- The Chinese University of Hong Kong
- The Hong Kong Institute for Education
- The Hong Kong Polytechnic University
- The University of Hong Kong

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some of the same complaints about my participation in the early Springer licensing exercise.

Like many other local consortia JULAC has embarked on various resource sharing projects (http://www.hkbu.edu.hk/julac/project/index.html) **(@)** such as an interlibrary-library loan program, reciprocal access and borrowing program by faculty members and students of the member libraries, co-operative Chinese cataloguing and name authority projects, and joint-licensing projects. Most of the projects have involved full participation of all member libraries, but some may involve a selected subgroup because of their special area of interest, institution needs, and other considerations.

(What does this url go with? Should it be moved to the place I've marked above with an {@} sign? ok)

Virtually all of the jointly licensed materials have been purchased with each library's own funds. JULAC has several subgroups, one of which focuses on the cooperative purchase of digital materials: the Collaborative Development Committee (CDC). This group was established in May 1999 as a task force and evolved into a committee comprising two JULAC members as co-chairs, and one representative from each of the JULAC member libraries. This was not the first sub-committee within JULAC to pursue cooperative purchasing but CDC is now a mainstay action group within this consortia. Unlike some larger local, state, or regional consortia, this group has no operational funding nor administrative personnel. Collaborative initiatives and negotiations are made possible soley by the voluntary efforts of its members. The CDC centrally handles the contract and negotiation functions, but other functions such as billing, payment, and resolving access problems with the providers are handled directly by each member library.

HONG KONG JULAC CDC CASE STUDIES

Elsevier ScienceDirect

ScienceDirect is best described as a "megasource" for over one million online articles, dated 1995 to current, which are available from more than 1200 journals from Elsevier Science and other participating publishers. It is perhaps the largest science, technology, and medicine or STM online full article database in the industry, and perhaps the most subscribed of any other STM packages.

Nearly all academic library consortia are eager to secure a deal to access the contents of this megadatabase, and JULAC CDC is no exception. Initially, all members expressed interest in pursuing a consortial deal for ScienceDirect. In July 2001, Elsevier was approached to offer JULAC CDC a proposal for ScienceDirect. Basically, the consortium was offered a "bundled" or the Complete Digital Collection (CDC) (e.g., access to all of the members' titles, with two further options: A) access to the Freedom Collection (all other non-subscribed titles), and B) access to Navigators, the nine Elsevier Science databases (Embase, Geobase, Biobase, Compendex, Fluidex, Beilstein abstracts, etc.), plus other selected third-party databases [Inspec, Biosis preview, Econlit, PsycInfo, Medline, etc.]).

No members expressed interest in the B option, since most libraries were subscribing to most of the navigator databases on different platforms (ERL, Ovid, or Silverplatter) and were unwilling to consider any change for the time being. As for the A option, because of the additional expense involved, most members were also unwilling to consider this option because of cost and lack of selectivity reasons, and instead focused just on the negotiation for the CDC which covered access to all of the members' titles.

From the start, it was apparent that the pricing for the CDC (a misnomer since it covers only those journals subscribed to by the member libraries) depended on the number of participants and initially the proposal assumed all eight members would participate. The pricing

structure included: 1) a content fee which is a percentage of the total print subscription value, and 2) a cross-access fee to be split equally among members (e.g., the more members there are to split the fee the lower the per library cost). As an inducement to go solely electronic or as a means of saving money, an electronic subscription option allowed libraries to reduce their costs by ten percent over the price they would have paid for their print subscriptions.

From the University of Hong Kong Libraries (HKUL) perspective, the consortium deal was not superior. Because HKUL was already participating in an earlier print and digital agreement, it was allowed to renew this agreement at a price less than the one it would pay by joining the consortia offer. Additionally, HKUL found the consortium offer was too restrictive in terms of the breadth of journals that could be accessed. The existing Elsevier–HKUL agreement allowed for free "transactional access" to what seemed to be an enormous but still limited number of articles from titles to which they did not subscribe. HKUL did not perceive that it was worthwhile to take part in the even more expensive Freedom collection, as it could afford wider access than would have been possible by participating in the JULAC Complete Collection option. In fact, however, this decision turned out to be short sighted because HKUL's users soon used up their pay-per-use allowance and switched to the even more expensive Freedom Collection option. In any case, participating in the JULAC shared license agreement did not meet HKUL's needs.

For the three libraries that joined the consortium deal, each was pleased with the cross-access arrangement for an additional fee split equally among them. Price was probably the most important reason for libraries that declined this deal, despite the access to additional titles and content. For these libraries, making cuts in print subscriptions duplicated electronically or making cuts from their monograph funds might become a prerequisite in order to shift the money needed to subscribe and to maintain the "bundled" collections.

Congressional Information Service (CIS) LexisNexis Academic Universe

Academic Universe, formerly called LexisNexis Universe, was introduced in August 1997. CIS took over the academic marketing for LexisNexis in early 1998 and Academic Universe is now part of the CIS Universe family of web-based information services, which includes CIS Congressional Universe, CIS Statistical Universe, and a History Universe.

Academic Universe provides access to a subset of the vast LexisNexis information database. Over 5200 unique title sources are searchable through the World Wide Web, (WWW), with timely information on: top news, biographical information, company news, general medical and health topics, industry and market news, medical abstracts, government and political news, accounting, auditing and tax, legal news and law reviews, company financial information, federal case law, country profiles, U.S. Code, Constitution, and Court Rules, State profiles, and State Legal Research.

At the beginning of 1998, CIS *LexisNexis* released a new price structure that produced a substantial price increase ranging from 25 to several hundred percent increases, depending upon the size of the library. Consortial discounts were then applied based on the total number of institutions within the group (e.g., 3-5 would get 5% discount; 6-10 would get 10%, up to a maximum discount of 25% only). In early 1998 representatives of CIS went to an **International Coalition of Library Consortia (is this correct? yes)** (ICOLC) meeting to explain their pricing structure[4]. It soon became apparent that there were significant differences of opinion between the two groups. It was agreed that a small group of librarians representing ICOLC would meet with CIS leadership to see if a better, more equitable solution could be found for libraries of all sizes.

[4] Dykhuis, Randy. (1998) Update on CIS/LEXIS-NEXIS Group License [Online]. Available:http://mlc.lib.mi.us/news/cis2.htm [March 27. 2002]. Ferguson was at this meeting.

On July 3, 1998, the *Chronicle of Higher Education* announced the results of the negotiations: a "mega-consortium" deal between LexisNexis and SOLINET (Southeastern Library Network in the US). SOLINET acted as negotiating agent for 23 library consortia and three individual universities bringing tremendous economic advantages for more than 600 participating institutions covering more than 3.7 million FTE students, and reducing the per student FTE cost to $1.52, an amount lower than what an individual consortium could attain. This agreement differed greatly from the previous one where some small colleges or universities would have paid as much as $5 to $6 per student FTE.

The JULAC consortium approached CIS for a proposal in early 1999. For JULAC with an aggregated FTE of 70,040, a flat fee of US$141,840 was proposed for the first 45,000 FTE, and another $2.14 for every FTE above 45,000. The price was at first rejected as impossibly expensive. However, once one of the JULAC directors made it clear each institution would pay based upon their own FTE, there was general acceptance of the offer. The savings for each JULAC institution ranged from 31 percent to 53 percent from what each would have had to pay individually with an average of 38 percent savings. This was a case where all members of the consortia, including the smallest, decided that they would participate because the content was useful and the price, although still significant, was acceptable.

China National Knowledge Infrastructure (CNKI) - China Journal Network

China Journal Network (CJN) is a Chinese language e-journal package containing more than 5,000 journals. A Tsinghua University lecturer, Wang Ming-liang, together with a University Vice President named Gu Bing-lin, established the Tsinghua University China National Knowledge Infrastructure (CNKI) to develop this service. By 1996 a CD-ROM version with 3,000 titles was in the marketplace. CJN is now a multidisciplinary package with more than

5,000 of an estimated 7,000 academic journals currently published in China. While it began by digitizing the current issues, it expects in the near future to go back to volume one, issue one for all of its journals and will contain more than 16.8 million articles. CJN is a fairly sophisticated database that allows author, article title, journal title, keyword, and citation searching using Boolean operators. It expects to have inter-journal linking in the near future.

Early adopters in Hong Kong employed the CD-ROM version but as the database grew in size some libraries became dissatisfied. They were in turn delighted when an online version was made possible, but were then again dissatisfied because the limited bandwidth of the link between China and Hong Kong made its use laborious and frustrating.

In December of 1999, in the midst of conversations with CJN's providers, two things became clear: A mirror site was needed to overcome the bandwidth problem and the prices requested by CJN for database access were judged as impossibly high by most of Hong Kong's university libraries. The question then became who might provide the mirror site and how would funds be found to purchase access. One university, HKUL decided that they would host the mirror site and that they could afford the high price needed to purchase the 1994 to 2001 collection plus the annual funds needed to maintain the subscription and mirror site. They made this decision because they felt the content would be valuable to their users and because they felt the per journal title costs were acceptable.

This decision angered other libraries that felt once HKUL agreed to pay the requested prices, the opportunity to negotiate lower prices was lost. Others perhaps felt the mirror site should have been shared by the consortium's membership in general. In the end, JULAC decided in January of 2000 that it would request extra funding from the University Grants Committee (UGC), the group that distributes government funding to Hong Kong's eight universities, so that

everyone could enjoy the same access as HKUL. The latter agreed to this proposal since it would enable it to at least eventually share the costs of maintaining the mirror site.

After nearly two years of waiting for a UGC decision it was determined that the funds would not be forthcoming. At this point, CNKI and HKUL decided to formalize their relationship, and HKUL became a commercial partner with CNKI in the marketing of all of its products in Hong Kong. Working together they developed a new FTE based pricing scheme that significantly reduced the costs for Hong Kong's academic libraries – although this latter claim is still widely debated. As of this time, while there continues to be interest in the CJN product, only one of the other seven JULAC libraries has purchased access to CJN via the HKUL mirror site. A few others continue to use the CD-ROM version.

CASE STUDY ANALYSIS

Earlier sections of this paper discussed the reasons for the growth of digital library consortia and the challenges that these groups encounter. The following charts detail whether these factors were significant in the three case studies just discussed:

Which of the following reasons for consortia action were significant in the case studies?

INSERT TABLE 1

Which of the following consortia challenges were significant in the case studies?

INSERT TABLE 2

The Academic Universe shared license agreement was a success because the benefits were equally shared and few of the challenges proved significant in the JULAC case. The benefits/challenges picture for the Elsevier offer were inconsistent and resulted in three libraries participating in the offer, one library making their own agreement and four libraries with no Elsevier electronic access. In the case of CJN, while most of the benefits for taking part in the

consortia offer existed, nearly all of the challenges existed as well—except for the overlapping consortia memberships challenge which doesn't exist for Hong Kong libraries because of their relative geographic isolation. In this case, low budgets seem to be in the way of expanding access to CJN online for all but two of the JULAC libraries.

CONCLUSION

Resource sharing consortia, created for the sole purpose of acquiring electronic forms of information, are prominent features of today's library landscape. They have succeeded, where previous attempts to share printed forms of information failed, because of the popularity of electronic information with library patrons; because they provide libraries with more information at a lower per-unit cost than otherwise possible; because consortia demand and frequently provide for the sharing of the skills and energy needed to evaluate, negotiate, and sign complex license agreements; because publishers listen more to several libraries saying the same thing with a forceful voice than they do to single libraries, few of which seem to agree upon anything; and because publishers and vendors have learned that consortia can help them sell more of their product at a lower cost than they could with their own sales representatives. These consortia, however, do not succeed easily. Successful collaboration requires significant amounts of time and energy; titles to be acquired should be, but are not of equal interest to each member of the consortia, nor are they equally affordable; consortia are not always able to speak with a single voice and overlapping consortia memberships reduce the effect of their collective buying power.

These reasons for the growth and failure of consortia purchasing efforts can be seen in the experiences of Hong Kong's JULAC consortia. JULAC successfully negotiated a shared Academic Universe license agreement because all of its members wanted the content, could clearly see that they were going to get a lot of content for the money, and because the librarian of

one institution was able to demonstrate the value of the agreement to other members of the group. Consortia agreements for ScienceDirect and CJN were not as successful, on the other hand, because of differences in the amount of time members were willing to expend to complete the negotiations, the actual need for the content, and the budget to purchase the content. Consortia in Hong Kong, and elsewhere, will continue to flourish as long as the benefits accrued outweigh the human and fiscal costs associated with the successful negotiation of shared license agreements.

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ICOLC: http://www.library.yale.edu/consortia/statement.html

WALDO: http://www.waldolib.org