

E-books at the University of Hong Kong Libraries: Current Status, Issues and the Future

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Abstracts: E-books are now nothing new to staff and students of the University of Hong Kong (HKU), the oldest university in Hong Kong and one of the leading tertiary institutions in the Asia-Pacific Region. E-books from netLibrary and other Web-based e-books vendors found their presence in the library website at the beginning of this century and almost at the same time, library staff began engaging in the production of electronic versions of printed books. The University of Hong Kong Libraries (HKUL) has been aggressive in building up its e-book collection and as of end of June 2005, the number of e-books in the library collection amounted to more than 918,000, nearly all of which can be accessed online by registered borrowers. On the other hand, e-book production has become an operational priority of HKUL and it is now actively partnering with sister institutions in book digitization projects. This paper provides an up-to-date account of the provision of e-books at HKUL, including size and composition of the collection, usage as well as projects currently undertaken in book digitization. In addition, the issues that HKUL has been facing in dealing with e-books, namely budgetary implications, copyright restrictions, consortia purchasing, access, bibliographic control, usage tracking and promotion, will be addressed to. Finally, the paper concludes with a projection of the future of e-books at HKUL.

Keywords: e-books, book digitization projects

INTRODUCTION

An e-book, like a paper-based book, or print book (p-book), is a combination of content and the physical object (and associated technology) that “bears” the content (Gibbons *et al.*, 2003). E-books, however, rely on software and the hardware to serve as the presentation vehicle for the content and thus provide functionalities, such as 24x7 accessibility, full-text searching capabilities and embedded hyperlinks, unmatched by their counterparts in print (A discussion of e-book functionalities can be found in Gibbons *et al.*, 2003). As a logical step on the timeline of publishing and the evolution of digital collections, e-books have quickly found their position in the library world and are increasingly available in libraries which prefer to take advantage of the benefits of e-books to cater for the changing requirements of their users, including tech-savvy students and distance learners, and to meet with their operational needs and development strategies.

Like all Web-based resources, e-books transcend geographical distance and are ubiquitous. But librarians deal with the issues brought forth by e-books differently. The objective of writing this paper is to examine the experiences at the University of Hong Kong Libraries (HKUL), the first academic library in Hong Kong and the library with the largest and fastest growing e-book collection in the territory. The paper begins with a short introduction of the library, an overview of its e-book collection and

initiatives related to book digitization; then a discussion of the issues associated with making e-books available to its users, namely budgetary implications, collection development, licensing, consortia purchasing, bibliographic control, access, usage tracking, promotion and copyright restrictions, and finally concludes with a projection of the future of e-books at HKUL.

THE UNIVERSITY OF HONG KONG LIBRARIES

Established in 1912, HKUL’s mission is to provide quality collections and services to support teaching, research and learning programmes of the University of Hong Kong, one of the eight government-funded higher education institutions in Hong Kong and a pre-eminent international university in Asia. The library caters for the needs of the University’s ten Faculties, namely Architecture, Arts, Business and Economics, Dentistry, Education, Engineering, Law, Medicine, Science and Social Sciences, 35 research centres and institutes that are independent of the Faculties as well as five university enterprises, located in three different campuses in the western part of Hong Kong Island. As of June 30, 2005, HKUL had a user population of more than 92,500, comprising mainly alumni (43,400), HKU staff and students (28,500), staff and students of the University’s extension arm - School of Professional

and Continuing Education (15,000). English is used as the medium of instruction at HKU and most library users are proficient in both English and Chinese.

In 2005/6, HKUL has an annual budget of more than US\$21 million, the largest among the eight academic libraries in Hong Kong. The lion's share of the budget has been allocated to library resources (53%) and staffing (43%), with the remaining taken up by expenses in maintenance, equipment and furniture, special projects, etc. It suffers from successive budgetary cuts over the past few years owing to downturn of the local economy which in turn has triggered off reduction of public spending in higher education. As a matter of fact, HKUL has a projected deficit of some US\$600,000 in its 2005/6 balance sheet, which fortunately can be defrayed by library reserve funds accumulated during the good old days. The reserve funds are to be used up in the year 2007/8, though it should be noted that the library has been bequeathed with sizeable endowment funds designated to the purchase of library materials.

As for staffing, HKUL now employs 214 regular employees, including 34 professional librarians and 180 support staff, as well as a number of temporary workers. There are organized into teams to provide centralized administrative and technical support as well as to offer reader services at the Main Library and six specialist branch libraries, namely Fung Ping Shan Library (East Asian Library), Medical Library, Law Library, Dental Library, Education Library and Music Library. HKUL has a sizeable collection, which as of June 2005 amounted to some 2.5 million bound volumes, 43,100 print journals, 36,000 e-journals and 51,000 audiovisual materials.

CURRENT STATUS

HKUL started acquiring e-books in the mid-1990s when CD-ROMs was still the predominant medium in data storage. Probably owing to its pre-occupation in developing an online service centered on e-journals and databases, the library did not put much emphasis on acquiring e-books on CD-ROMs, or devote the attention to promote their availability as a distinctive collection. The library remained apathetic to e-books until the year 2000 when the first Web-based e-books were added to the collection. The changing attitude can perhaps be seen in an announcement made in the June 2000 issue of *FOCUS*, the newsletter of HKUL, which reports that "As of 12 April 2000, through a subscription to netLibrary, Electronic Books (eBooks) have been made available to the University of Hong Kong community, providing online full-text access to reference, scholarly, and professional books" (Chan, 2000).

Collection size

HKUL has been building up its e-book collection aggressively since that time. As of 30 June 2005, HKUL had a collection of 918,167 e-books, or digitized versions of texts (including those that are born digital) that can be read on personal computers, laptops or personal digital assistants. Nearly all HKUL e-books can be accessed on the Internet using a Web browser or an e-book reader, such as ebrary Reader, Adobe Reader, ApabiReader or Superstar's SSReader. Only 14,688 e-books, mostly acquired by the library before the advent of Web-based e-books, are still on CD-ROMs. None of the library's e-books is on diskettes and it has never introduced e-book readers, such as Rocket e-book and the Softbook, to its users.

There are a number of reasons accountable for the significant growth of the HKUL e-book collection. They include:

- Taking advantage of the functionalities of e-books to meet better the needs of users.
- Providing content that is available on e-books only.
- Saving staff time on technical processing and stock management.
- Alleviating HKUL's acute shelving space shortage problem.
- Obtaining usage statistics of the collection since most vendors can supply these figures readily.
- Enhancing HKUL's position as a leading digital library in the region.
- Users' acceptance of Web-based electronic resources.
- Availability of a myriad of English and Chinese e-books in the market.

Arguably these reasons can be equally relevant to other Hong Kong academic libraries, but none of them is as aggressive as HKUL in investing in Web-based e-books. Perhaps, it is also necessary to include the library's adoption of a policy that prefers electronic resources to print materials and the availability of a substantial library resources budget as the key factors affecting the phenomenal growth of HKUL e-book collections.

Composition and usage

Most of the HKUL e-books have been acquired through subscription. In selecting e-books, decisions have been generally influenced by the information needs of HKU faculty and students, and specifically driven by the following priorities:

- Heavy demand items that students want to read, e.g. titles selected for reading lists and high demand textbooks.
- Core subject or reference collections, especially materials that become obsolete quickly.
- Collections of monographs and textbooks from leading academic publishers, e.g. Oxford University Press and Wiley. Electronic textbooks

suitable for undergraduates' needs could provide valuable option in substituting the need to purchase multiple copies.

- Subject areas where there is high IT awareness, e.g. business and management, IT and e-commerce (Chan, 2003).

Table 1 provides a list of the core fee-based e-book collections at HKUL, their library holdings and usage.

Table 1 Core fee-based e-book collections at HKUL

Collection name	Holdings	Board subject	Usage	
			Jun 05	07/04-06/05
Apabi eBook	44,831	Multi-disciplinary	N.A.	N.A.
Books24x7	4,331	Business, engineering	1,841	24,853
China Doctor/Master's Dissertations Databases	80,000	Multi-disciplinary	2,578	41,433
Early English books online	71,935	Arts & humanities	428	2,925
ebrary	19,200	Multi-disciplinary	2,605	38,939
Eighteen century collections online	129,833	Arts & humanities	333	3,724
ENGnetBASE: engineering handbooks online	267	Engineering, technology	N.A.	N.A.
Early American imprint, series I & II	36,302	Arts & humanities	N.A.	N.A.
Knovel: scientific and engineering databases	623	Science, engineering	295	3,745
netLibrary/CCDMHK consortium	16,527	Multi-disciplinary	3,196	55,768
InterLex past masters	373	Philosophy, economics, political science	15	238
ProQuest dissertations/Digital dissertation consortium	37,988	Multi-disciplinary	3,582	31,957
Safari tech books online	370	Engineering, technology	323	4,385
Superstar digital library	281,000	Multi-disciplinary	N.A.	N.A.

It is noteworthy that the HKUL e-book collection includes not only titles commonly found in libraries in the English-speaking world but also those in Mainland China. This can be explained by the fact that the library is serving a bi-lingual user community where both English and Chinese are commonly used, and that it has to pay equal emphasis to the collection of both English and Chinese e-books.

Owing to data availability, usage statistics of a number of e-book collections are missing. For example, usage statistics of Superstar digital library are not provided because the collection was introduced to users only a couple of months ago. This paper does not attempt to scrutinize the usage of e-books at HKUL because many of them were acquired recently and it would be premature to jump to a conclusion on how effective the acquisition dollars were used based on the limited usage statistics that are available at present.

Free e-books

In addition to fee-based ones, HKUL's e-book collection also includes titles in public domain or in open access collections downloadable for unlimited access, such as Project Gutenberg. Yet, owing to the vast amount of e-books available free on the Internet,

HKUL's policy is to include collections that can meet with the following selection guidelines:

- Information provided or created by an authority or a reputable or reliable source on the subject.
- Website is favourably reviewed by a reputable source.
- Site is accessible freely with browser/software and compatible with existing networked environment.
- Site is stable with infrequent down times.
- Site should provide bibliographic details of e-books.
- Good design with visual appeal and easy navigation of contents within the site, such as site index or search engine.

A total of eight free e-book collections have so far been hyperlinked and catalogued. The core collections are *Documenting the American South*, *Making of America* and *Project Gutenberg*.

Book digitization projects

Finally, the HKUL e-book collection has a small number of e-book titles, almost all of them are unique ones, which have been digitized in-house as a result of the following digitization projects (<http://lib.hku.hk/database/>):

- Hong Kong University Theses Online (1,383 titles)
- Digital Editions from HKU Press (57 titles)
- China Through Western Eyes (32 titles)

To avoid infringing copyright, HKUL has been digitizing only non-copyrighted books and books for which copyright permission has been cleared. Despite these restrictions, the library has still got a considerable number of books pending for digitization owing to the availability of a sizeable collection of old books and that the in-house production team, made up of three support staff and a part-time supervisor, can only scan a limited number of pages per week. Furthermore, HKUL has been experiencing cuts in staffing and general expenses budgets in recent years, which practically rule out the options of hiring additional staff for the in-house production team or outsourcing the scanning work to a commercial vendor.

To alleviate the problem, HKUL has been discussing with libraries, local and overseas, the possibilities of collaborating in book digitization projects and applying for outside financial support. The one with Zhejiang University Library came to fruition in early 2005 when the two libraries signed an agreement, under which HKUL will provide 60,000 volumes of non-copyrighted library materials, including pre-1923 English titles, Hong Kong Government publications and University of Hong Kong theses and dissertations, to a scanning centre in Shenzhen for digitization before December 2006. Since the e-books created will be added to the China-US Million Book Digital Library Project, Zhejiang University Libraries will not charge HKUL for book scanning and Carnegie Mellon University will be absorbing the costs for transporting the books between Hong Kong and Shenzhen. HKUL sent the first batch of 15,000 books, including pre-1923 English books and HKU theses and dissertations in early July 2005. At the time of writing, it is expected that the second batch of 15,000 books will be sent to the Shenzhen scanning centre by mid-November. This collaborative arrangement enables HKUL to digitize a sizeable collection of library books in a cost-effective manner and to contribute to an important project which opens up online access to the scholarly community a vast amount of materials originally in print format.

ISSUES

To HKUL, the provision of e-books has been accompanied by a number of thorny issues, including

budgetary implications, collection development, licensing, consortia purchasing, bibliographic control, access, usage tracking, promotion and copyright restrictions. HKUL has been dealing with these issues by taking actions such as amending policies and guidelines, re-deploying staff and setting up additional servers. There is however no panacea for dealing with these ever-changing issues and the library has to be creative in addressing to scenarios hitherto unknown in the print environment.

Budgetary implications

HKUL started to build up its e-book collection at a time when it was not able to use up its library resources budget and unspent book money had to be carried over to the next financial year. The acquisition of e-books did not pose any budgetary problem and on the contrary, it provided the library the opportunity to spend more money. Unfortunately, this is no longer the case now since the library has been receiving less money from the university and that the price of library resources keeps increasing every year.

HKUL responds to the budgetary problem by adopting a policy of cutting staffing and general expenses, and channeling the savings to the library resources funds. At the same time, the library also strives towards e-only contents whenever deems appropriate and allows shifting funds from print budgets where the e-versions, mostly journals, have replaced the print versions (Chan, 2005). As a result, allocation to the Shared Electronic Resources Fund, which has been designated to the purchase of interdisciplinary journal packages, databases, reference tools and e-books, increased significantly by 84% from US\$2.9 million in 2003/4 to US\$5.33 million in 2005/6. Given the availability of adequate funding in the library resources budget, it is not surprising for HKUL to build up a significant e-book collection over the past few years.

Collection development

Unlike the bookless engineering library being planned at Stanford (Olsen, 2005), HKUL is going to keep its print collection. This means that p-books continue to occupy a central position in the daily operation of HKUL. On the other hand, users expect to have access to p-books in the same manner as they did before the advent of e-books. Collection development therefore becomes more complex, and librarians have to work together with faculties to decide how far its shrinking budgets should stretch. They have to consider a range of options including sharing subscription costs through partnerships and

consortia and offering e-books-only services where appropriate. For example, HKUL has been buying less printed yearbooks over the past two years after subscribing to the Apabi Chinese yearbook collection where the e-book version can provide more updated contents and save space. HKUL also established the Shared Electronic Resources Fund Advisory Committee, comprising Library Representatives of different disciplinary interest and the Collection Development Librarian, to advise on the expenditure of the Shared Electronic Resources Fund and to reflect the priorities and needs of the university community.

As to selection, HKUL acquires e-books on a title level, such as netLibrary, or as an aggregated database, such as ebrary and Superstar Digital Library. Aggregated databases help to achieve a critical mass at a relatively low cost. But the library also needs some selectivity when dealing with expensive or unique titles. In developing an all-round e-book collection, HKUL juggles to balance these two selection models, as it has been when developing its e-journal collection (Chan and Lai, 2004).

Licensing

HKUL is fortunate to have appointed an Electronic Resources Coordinator to take charge of matters arising from the subscription or purchase of electronic materials. One of the duties of this newly created position is to negotiate with vendors on the contract terms and to make sure that licensing agreements that HKUL enters into are in order. Organizationally this is a good arrangement since license negotiations can sometimes be complicated and painstaking. It is preferable to assign a staff member who has the necessary knowledge and experience to handle the task.

Consortia purchasing

HKUL has been actively participating in consortia purchasing of e-books over the past few years in order to leverage the collective purchasing ability of other libraries that have the same purchasing needs. It now participates in three consortia in the purchase of e-book collections, namely Collaborative Development Committee (CDC) of Joint University Librarians Advisory Committee (JULAC) in Hong Kong, Digital Dissertation Consortium, organized by Computing Centre of Academia Sinica in Taiwan, on ProQuest digital dissertations and CCDMHK (Dartmouth, Cornell, Columbia, Middlebury and Hong Kong) Consortium on netLibrary e-books

It is noteworthy that HKUL works closely with

other JULAC libraries in purchasing e-books through CDC, and the titles acquired are:

1. Britannica databases
2. Europa & Routledge databases
3. Oxford English Dictionary
4. Oxford Reference Online (Core and Premium)
5. Gale Virtual Reference Library
6. Grove Music and Grove Art Online
7. Apabi eBook

CDC also considered consortia purchasing of e-books from Springer, ebrary, Knovel and Coutts MyiLibrary but for a number of reasons, was unable to reach an agreement. Discussions among CDC members on the purchase of Superstar e-books are still ongoing.

Bibliographic control

One of the advantages of e-books is that they do not need the extensive "processing" that p-books need to prepare them for circulation (Dowdy *et al.*, 2001). In academic libraries, however, it is still important to integrate e-books with the existing collections so that users are aware, when browsing the library Web site or online catalogue, that some books are available online.

HKUL has adopted the policy of cataloguing all e-books, no matter they are fee-based or free, so that users can locate the e-books by searching the library catalogue. The task of cataloguing e-books has been assigned to the E-resources and Serials Team, which was set up in 2003 after a re-organization of the library's technical services departments. To lessen workload in cataloguing, HKUL always requests for bibliographic records in MARC 21 format from vendors, even for a fee. However, not all e-book vendors are able to supply such records and sometimes, the records provided are of inferior quality that need to be enhanced and cleaned up. This has exerted a lot of pressure to the Team, particularly in shortening the turnaround time between checking in of new e-books and maintaining an updated library catalogue. Backlogs in cataloguing are inevitable and the recent purchase of 281,000 e-books from Superstar Digital Library has brought additional workload to the Team at a time of negative growth in staffing. The upside, however, is that contribution of these unique e-book records to OCLC has been able to generate additional revenue to cover some of the costs and that these records would be useful to other member libraries.

Access

Unlike p-books that are printed and sold as separate physical entities, Web-based e-books exist as digitized versions of texts sited on a central server. A

library does not have to allocate shelving space to e-books, but instead provides the infrastructure through which users can access to e-book servers anytime, anywhere.

HKUL, of course, does not find any problem in meeting this pre-requisite since it benefits from the excellent and reliable networks set up by the university within the campus and Internet Service Providers outside the campus. Broadband services are very popular in Hong Kong and internationally, Hong Kong is second only to South Korea in terms of broadband penetration rate. This means that accessing HKUL e-books, which very often require downloading sizeable data files over the Internet from the central server, would in most cases be as fast as picking up books from bookshelves. The library also provides an EZproxy service to enable users to access licensed e-books at home, office or other sites while abroad. This enables the library to extend Web-based licensed e-books to remote users and fulfill vendors' licensing requirements.

With the exception of Superstar e-books and China Doctor/Master's Dissertations Databases, all HKUL e-books reside on servers remotely sited. HKUL prefers access to remote hosts via the Internet because it offers faster updating, cost savings in storage and presents fewer problems in system maintenance. The two exceptions were made after careful consideration in order to provide more stable connection and faster downloading speed in accessing these Chinese e-books. HKUL has set up for these e-book collections local mirror server sites, which of course incur one-time set up costs as well as recurrent expenditure in maintaining the servers and updating their contents.

Usage tracking

Though availability of usage statistics has been listed earlier in this paper as a benefit of e-books, HKUL has been encountering difficulties in obtaining such data from some vendors. Another issue is that e-book usage can be measured in a number of different ways, such as number of logins, number of searches, number of downloads, number of checkouts and so on. HKUL receives usage statistics from a number of vendors and not all of them have adopted the same standard in reporting usage. This has caused difficulties in compiling statistics and comparing usage between e-book collections in a consistent manner.

Promotion

HKUL has adopted a number of methods to publicize the availability of e-books, including making announcements on the library's web site,

writing articles for library newsletters, creating flyers, sending bulk emails to potential users, creating a webpage listing e-book collections and including e-books in bibliographic instruction. The library also organized in 2003 and 2004 a library-wide event called "e-book month" too. It has now become an annual event bringing together activities including exhibitions, library courses and quiz to promote users' awareness of e-books at HKUL.

Copyright restrictions

Enacted before the handover in 1997, the existing copyright law in Hong Kong has been modeled after the one in the United Kingdom. The general rule is that copyright lasts until 50 years after the creator of the work dies, which means that, to play safe, libraries in Hong Kong have first to obtain copyright clearance before digitizing publications published in the past few decades. The fear of infringing copyright has been a key factor in affecting the digitization of HKUL materials and as remarked earlier in this paper, the library's digitization projects have been confined to non-copyrighted publications and materials for which copyright permission has been cleared.

It should be noted that the above general rule is not compatible with the Million Book Digital Library Project's guideline of scanning pre-1923 publications. This caused some discussions amongst staff but the library eventually decided to proceed with sending pre-1923 English books to Shenzhen for digitization. In addition, HKUL also initiated a large-scale operation of requesting copyright permission from government departments to digitize their publications in order to fulfill its commitment to contributing 60,000 volumes of non-copyrighted publications to the Project. According to the law, government publications are protected by government copyright which continues to subsist:

- (a) until the end of the period of 125 years from the end of the calendar year in which the work was made; or
- (b) if the work is published commercially before the end of the period of 75 years from the end of the calendar year in which it was made, until the end of the period of 50 years from the end of the calendar year in which it was first so published (Hong Kong, 1997).

Hundreds of letters were sent to government departments in mid-2005 together with the list of publications that HKUL would like to digitize. This has created a lot of work in answering enquiries from government departments on copyright issues but fortunately, many departments responded favourably

to the request. At the time of writing, a total of 68 replies have been received, giving permission to the scanning of 1,964 titles, or some 4,300 volumes. Only two departments refused to give permission. Yet, copyright restriction has always been an obstacle hindering book digitization at HKUL and no doubt, it will still be a headache to future projects in the years to come.

FUTURE

HKUL users will have access to more than one million e-books by the year 2006 when another 119,000 Superstar e-books are added to the library collection. It is believed that the HKUL e-book collection will grow further if more e-books become available in the market; the library continues to implement its electronic resources-only policy and users consider e-books as an alternative or a better choice to p-books. Budget availability is an issue affecting the growth rate since the library is not likely to get extra income from the university in this triennium during which government funding for 2005/06 and 2006/07 will be frozen while funding for 2007/08 will depend on the economy at the time. It should be noted that, however, HKUL could either make use of its endowment funds or re-allocate money from the p-book fund to ensure future growth of the e-book collection. The latter option will of course affect negatively the purchase of new p-books and eventually show some impact to the operation of the library.

Another issue relates to Google's plan of digitizing nearly all the 8.7 million books in Stanford University's collection and the seven million at the University of Michigan (Lee, 2004). Many saw this as the first step toward creating a global virtual library, but what will be its impact on the operations of HKUL. Should the library stop its book digitization projects since what HKUL is going to digitize would probably not be unique titles, or step up the projects to create a "critical mass" of e-book titles in a given subject area that can improve the library's global visibility? These options need to be considered carefully since the decision will no doubt affect HKUL in many ways.

It is difficult to gaze through the crystal ball at the future of e-books at HKUL, particularly at a time of rapid technological changes. Web-based e-books may have changed quite a lot in five or ten years with the coming developments in e-ink and e-paper and wireless technology. Librarians have witnessed during the past few decades the phasing out of a

number of data storage media, such as gramophone records, videocassette tapes and computer diskettes; let's hope that e-books would be as long lasting as p-books in storing, transmitting and preserving knowledge in the years to come.

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