Development of the Acquisition Model of Online Information Resources at Faculty of Medicine Library, Khon Kaen University

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Faculty of Medicine Library, Khon Kaen University started to acquire online information resources since 2001 with the subscriptions to 2 databases. Nowadays it has 29 items of subscriptions and the expenses on online information resources reach to 17 million baht, more than 70 percent of the information resources budget, serving the academic purposes of the Faculty of Medicine. The problems of online information resources acquisition fall into 4 categories, and lead to 4 aspects conforming the model of the acquisition, comparing or benchmarking with the 4 selected medical school libraries in Bangkok, Chiang Mai, and Songkhla, and discussion with some other Thai and foreign libraries. The acquisition model of online information resources is developed from those problems and proposed for Faculty of Medicine Library, Khon Kaen University as well as for any medical libraries which prefer.

Keywords: Online information resources, Acquisition model, Medical library, Faculty of Medicine

The Faculty of Medicine, Khon Kaen University, has been a medical school in Thailand since its foundation in 1972 with the history of 40 years. The Faculty Library opened in 1973(1) to serve the purposes of academic teaching and learning and, in following time, research support together with health care of Srinagarind Hospital as part of academic teaching. Thus, the library has to procure every resource that serves the purposes of the teaching staff, students, researchers and other Faculty staff.

In general, library resources are books, journals, research reports, audio-visual materials and other documents. For some time now, electronic media such as CD-ROM has taken an important role in library services. When the internet is world-wide, the library resources develop to be online information resources that serve the library users' requirement of speedy and well-selected information. Accepted popular online information resources are nowadays e-books, e-journals, reference databases, etc. Besides, there are other contents in health science fields such as point-of-care, clinical practice, systematic reviews, multimedia, image and others that can be accessed anytime and anywhere. The drastic growth of online information resources is all over the world(2-4). Moreover, the reputation and accreditation of academic institutes now depend on the measurement of the quantity and quality of library information resources(5, 6).

To provide qualified library services and to serve the mission of the Faculty of Medicine, the acquisition unit of the library is significantly responsible for its task of selection and procurement of information resources while the highest growth of information is sustained. The acquisition task comprises purchasing, donation and exchange of resources; however, the notable price of online information resources sets the purchasing as the main function of the procurement. As libraries have to spend more every year on the information resources(7), the acquisition should be worthwhile and serve the most purposes of the library users(8,9). This year (2013) Khon Kaen University Faculty of Medicine Library has a 26-million baht budget for information resource acquisitions; the library has purchased online information resources for 13 years. The topic of online information resources has never been officially considered and if the case is analytically studied, the
appropriate acquisition model of online information resources can be set for use in the library and other medical school libraries as well.

Objective
1. To study the situation and problems of the acquisition of online information resources at Faculty of Medicine Library, Khon Kaen University.
2. To develop the appropriate acquisition model of online information resources at the Faculty of Medicine Library, Khon Kaen University that can be usefully applied to other medical school libraries in Thailand.

Scope/definition
“Online information resources” are defined as the online information resources which the library acquires from outside only, and not the databases created by the library itself, e.g. OPAC (Online Public Access Catalog).

Material and Method
1. Documentary research providing the analytical facts of the situation and problems of the online information resources acquisition at Faculty of Medicine Library, Khon Kaen University, including expenses and history of acquisition.
2. Interviewing with chief librarians, librarians and staffs of 5 medical school libraries, who are responsible for acquisition of online information resources. Those medical schools are: 1) Faculty of Medicine Library, Chulalongkorn University, 2) Faculty of Medicine Siriraj Hospital Library, Mahidol University, 3) Faculty of Medicine Library, Chiang Mai University, 4) Faculty of Medicine Library, Prince of Songkla University, and 5) Faculty of Medicine Library, Khon Kaen University.
3. Benchmarking some comparative data from documentary research and interviewing to clarify problems so as to fulfill the objectives of the study.

Results
Situation of online information resources acquisition at Faculty of Medicine Library, Khon Kaen University
The Faculty of Medicine Library, Khon Kaen University started the acquisition of online information resources in 2001 by subscribing to 2 databases, SpringerLink and ProQuest Medical Library. Most of the acquisition methods are annual subscriptions but sometimes perpetual purchases. However, there was once one donated database, the Cochrane Library, which was complementary from SEA-ORCHID (South East Asia-Optimising Reproductive and Child Health in Developing Countries) during the year 2006-2008 due to the Tsunami disaster in Thailand. The subscriptions and purchases are mostly through vendors in Thailand more than directly from foreign publishers for convenient sake.

Nowadays (year 2013), the library acquires online information resources by the subscriptions of 29 items which can be classified into 3 groups:
1. E-journal, in the meaning of electronic full-text journals
2. E-book, in the meaning of electronic full-text books
3. E-database, in the meaning of combination of e-journal, e-book and e-reference or bibliographic data (Table 1).

During 2003-2012 (for 10 fiscal years), the expenses of the library on the online information resources have increased every year (Fig. 1). When comparing the total expenses of overall resources, online, print and electronic media such as CD-ROM, the percentage of the online information resources expenses has become greater. In 2003, the percentage was 9.20, but in 2012 it transformed into 71.33, or about

Table 1. Online information resources at KKU Faculty of Medicine Library

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<th>Resources types</th>
<th>Name</th>
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<tbody>
<tr>
<td>E-book (6)</td>
<td>1) Access Emergency Medicine, 2) Access Medicine, 3) Access Surgery, 4) First Aid, 5) Thieme Flexibook, 6) LWW Books@Ovid</td>
</tr>
<tr>
<td>E-database (5)</td>
<td>1) Clinical Key, 2) Karger Online, 3) Micro medex, 4) Psychiatry Online, 5) Scopus</td>
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8 times in ten years. This shows the same trend as in the United States when the ARL (Association of Research Libraries) estimated that the research libraries spent 3.6 percent in 1992-1993 and 12.9 percent in 1999-2000 of their materials budget on electronic resources\(^{(10)}\), and by 2008-2009 the total electronic resource expenditure exceeded 50 percent\(^{(11)}\).

KKU Faculty of Medicine Library has the policy of online information resources acquisition but it has not been formally written yet. The library sets the goal of spending more on online information resources than print ones, around 60:40 in ratio. In the recommendation and selection of resources for acquisition, the library manages for many stakeholders to involve. Those people are the acquisition librarian, the faculty staff and researchers, and the students. There are many methods of selection: 1) the publisher or vendor proposes the resources to the library for selection, 2) the librarian considers from the usage of interesting online resources in other libraries, and 3) the publisher or vendor proposes the resources to the faculty staff for selection and send request to the library for further acquisition. What the library considers in the selection are: 1) the curriculum of the Faculty of Medicine, 2) supporting facilities for Faculty research, 3) the quality of online information resources, 4) the library users’ requirements and expectations, 5) good services from the vendors or publishers of online information resources, and 6) the worthiness of an acquisition or budget savings.

There are many conditions in the acquisition of online information resources at KKU Faculty of Medicine Library: 1) the library will cancel information resources in print format if acquired already from online information resources, except for necessary reasons such as maintaining print due to publisher’s conditions, 2) the package databases are considered more than title-by-title book/journal purchasing, and 3) emphasis on enough user license numbers. The library uses many sources in acquisition: 1) vendors or publishers, 2) the medical consortium, 3) various seminars or conferences, 4) librarians’ or library networks, and 5) other libraries or document centers. Many channels are used to communicate with vendors and publishers, including e-mail, meetings, and by telephone.

**Problems of the online information resources acquisition of Faculty of Medicine Library, Khon Kaen University**

**Management problems**

Nowadays (year 2013), KKU Faculty of Medicine Library faces management problems respectively as follows: 1) the library administrators still lack enough knowledge and experience in acquisitions, 2) the library does not have enough staff in acquisitions, 3) the other work processes of the Faculty cause some inconveniences in acquisitions, 4) the library does not set clear acquisition policy, thus complicating acquisition operations, 5) the library does not set annual acquisition goals to accomplish quality criteria for the Faculty. The library has no problem in 2 topics: 1) not enough budget to fulfill users’ needs of online information resources, and 2) no systemic information for acquisition management or decision-making. When compared with the other 4 medical school libraries, it was revealed that the problems are similar to the Faculty of Medicine Library, Chiang Mai University, especially the first and second problems, and similar to the Faculty of Medicine Siriraj Hospital Library, Mahidol University concerning the shortage of acquisition staff (Fig. 2).

**Selection problems**

The library faces selection problems respectively as follows: 1) the vendors or publishers cannot offer online information resources which are interested or required by the users, 2) the library still lacks information sources for the selection, 3) the selectors still lack enough knowledge and experience in online information resources, 4) the selectors do not pay much attention, e.g. spending less time, in the selection process, 5) the selectors showed some bias in the selection process, e.g. recommending online information resources in only some subject areas, and 6) the vendors or publishers cannot provide the library with facilities for the selection process.

The library has no problem on providing facilities for the selectors, e.g. managing the demonstration of online information resources. When compared with the other 4 medical school libraries, it is found that the problems are similar to the Faculty of Medicine Library, Chiang Mai University and the Faculty of Medicine Library, Prince of Songkla University, on the second, third and fourth problems. The problem which is similar to the other 4 libraries is that the vendors or publishers cannot offer online information resources which are interested to or required by the users (Fig. 3).

**Purchasing problems**

The purchasing problems that the library faces are respectively as follows: 1) communications
Information Resources Expenses of KKU Faculty of Medicine Library.

Management problems of the online information resources acquisition.

Selection problems of the online information resources acquisition.

Cooperation problems

When compared with the other 4 medical school libraries, it was found that the problems are much similar to those of the Faculty of Medicine Library, Chiang Mai University and the Faculty of Medicine Library, Prince of Songkla University, especially the first, second, and fourth problems. The problems which are similar to Faculty of Medicine Siriraj Hospital Library, Mahidol University are the fourth and the third problems on increasing prices or condition changes and the late payment (Fig. 4).

Cooperation problems

The cooperation problems that the library faces are respectively as follows: 1) the publishers or vendors raise the prices of the online information resources every year, 2) some publishers or vendors cannot provide information required by the library, 3) the library users are not interested in cooperating in the process, e.g. in the recommendation, the selection, or the inspection of the online information resources, 4) the libraries in the Thai Medical Consortium still lack some cooperation as is needed, and 5) the libraries in other networks, e.g. PULINET (Provincial University Library Network) or OHEC (Office of the Higher Education Committee), still lack some cooperation as is needed.

When compared with the other 4 medical school libraries, it is found that the problems are very much alike the Faculty of Medicine Library, Chiang Mai University and the Faculty of Medicine Library, Prince of Songkla University in the first and third problems on increasing prices and the cooperation of the library users. The other 2 libraries face these same problems as well (Fig. 5).

Development of the appropriate acquisition model of online information resources at Faculty of Medicine Library, Khon Kaen University

From the specified problems of the online information resources acquisition, the attributes of acquisition model of online information resources are developed and defined into 4 aspects: 1) management,
Management aspect

The attributes of acquisition model in the management aspect are: 1) the library should set a clear, written policy of online information resources acquisition, 2) nowadays the library should spend more on online information resources than on print ones, 3) the library should set annually acquisition goals to accomplish quality criteria of the Faculty, 4) the library administrators’ expertise should be developed to gain enough knowledge and skills in online information resources acquisition, 5) the library should have enough budgets to fulfill users’ needs of online information resources, 6) there should be enough staff responsible for the acquisition task, 7) the library should have an information system for acquisitions decision-making or management, and 8) the overall acquisition processes of the Faculty of Medicine should be fast and agile.

It was found that the attributes of acquisition model in management aspect of Faculty of Medicine Library, Khon Kaen University are the same as the other 4 medical school libraries. Exceptions are that Faculty of Medicine Library, Chulalongkorn University does not mention adequate staff and information systems for acquisitions and Faculty of Medicine Library, Chiang Mai University does not mention enough budget to fulfill users’ needs (Fig. 6).

Selection aspect

The attributes of acquisition model in selection aspect are: 1) the selectors should have qualified knowledge and experience in online information resources, 2) the selectors should pay more attention to selection, e.g. spending more time in the selection process, 3) the selectors should not have bias in selection, e.g. recommending online information resources only in some subject areas, 4) the selectors should be composed of acquisition librarians and faculty staff, 5) the selectors in some cases can be either acquisition librarians or faculty staff, 6) the library should seek information from various sources for the selection, 7) the library should provide facility systems for the selectors, 8) the publishers or vendors should look for online information resources to propose to the library users, and 9) the publishers or vendors should provide full facilities for the library’s selection.

It is found that the attributes of acquisition model in selection aspect of Faculty of Medicine Library, Khon Kaen University are very close to both

Fig. 4 Purchasing problems of the online information resources acquisition.
(KKU = Khon Kaen University, CU = Chulalongkorn University, SR = Mahidol University (Siriraj), CMU = Chiang Mai University, PSU = Prince of Songkla University)

Fig. 5 Cooperation problems of the online information resources acquisition.
(KKU = Khon Kaen University, CU = Chulalongkorn University, SR = Mahidol University (Siriraj), CMU = Chiang Mai University, PSU = Prince of Songkla University)

Fig. 6 Management aspect of the acquisition model of online information resources.
(KKU = Khon Kaen University, CU = Chulalongkorn University, SR = Mahidol University (Siriraj), CMU = Chiang Mai University, PSU = Prince of Songkla University)
regional medical school libraries, Faculty of Medicine Library, Chiang Mai University and Faculty of Medicine Library, Prince of Songkla University, but different from the both medical school libraries in Bangkok, Faculty of Medicine Library, Chulalongkorn University and Faculty of Medicine Siriraj Hospital Library, Mahidol University. Faculty of Medicine Siriraj Hospital Library, Mahidol University does not mention various sources prepared by the library and the facilities provided by publishers or vendors whereas Faculty of Medicine Library, Chulalongkorn University mentions only the facility system provided by the library and the online information resources publishers or vendors should propose for the users (Fig. 7).

**Purchasing aspect**

The attributes of acquisition model in purchasing aspect are: 1) the library can communicate in purchasing online information resources even though there is no vendor in Thailand, 2) the library establishes effective communication ways with foreign publishers and vendors, 3) the library establishes effective communication ways with publishers and vendors in Thailand, 4) the library has an agreement system or negotiation system with the publishers and agents at all times and to its full function, 5) the library sets the non-delay payment system for the publishers and vendors, and 6) the library establishes control and checking system of the library staff to prevent mistakes.

It was found that the attributes of acquisition model in purchasing aspect of Faculty of Medicine Library, Khon Kaen University are the same as both regional medical school libraries. Faculty of Medicine Siriraj Hospital Library, Mahidol University does not mention about establishing effective communication ways with publishers and vendors in Thailand and Faculty of Medicine Library, Chulalongkorn University does not mention establishing effective communication ways with publishers and vendors in Thailand and abroad and also does not show concern about the control and checking system of the library staff to prevent mistakes (Fig. 8).

**Cooperation aspect**

The attributes of acquisition model in cooperation aspect are: 1) the library has good relationship and good communications with its users so as to build their participation in the recommendation, selection, and inspection of the online information resources, 2) the library has many ways of communicating with various publishers and vendors at the same time so as to get the required information, 3) the library can negotiate with publishers and vendors to prevent the yearly price increases, 4) there are developments in the cooperation of online information resources acquisition among the libraries in Thai Medical Consortium, and 5) there are developments in the cooperation of online information resources acquisition among the libraries in other networks.

It was found that the attributes of the acquisition model in the cooperation aspect of Faculty of Medicine Library, Khon Kaen University are the same as the other medical school libraries, except that Faculty of Medicine Library, Chulalongkorn University does not mention developments in the cooperation of online information resources acquisition among the libraries in Thai Medical Consortium and in other networks (Fig. 9).

**Discussion**

The main method of online information resources acquisition at Faculty of Medicine Library, Khon Kaen University, is by annual subscription, the same as other medical school libraries, because the publishers produce and sell continuously updated resources. The online information resources comprise e-journal, e-book, and e-database, which are the combination of e-journal, e-book, and e-reference in one database. This is not different from other medical school libraries. The expenses for online information resources grow higher in ratio every year, as found in many libraries including foreign research or university libraries\(^{(10-12)}\).

The library’s problems of online information resources acquisition are divided into 4 aspects: management, selection, purchasing, and cooperation. The overall problems are alike among the 5 studied libraries, but more likely in details to both medical school libraries in Chiang Mai and Songkhla. Being regional medical school libraries causes problems in communication with the publisher or vendor and in the lack of information sources more than those libraries in Bangkok. The problem in lacking information sources is the same as Chuenta’s research findings in year 2005\(^{(4)}\). The other interesting common problem of the 3 regional medical school libraries is the cooperation between the libraries and the library users. This problem conforms with many research results in Thailand, e.g. Mahasarakham University, Prince of Songkla University, Health Science Libraries in Pathumthani and Nakorn Nayok, which mentioned that the faculty staff and students should participate more in acquisition
tasks\textsuperscript{13-15}, and conforms with Courtney and Jenkins’s research which concluded that library and faculty staff should work together to make the library collection more perfect\textsuperscript{16}.

The most important problem related to publishers and vendors is the increase in prices of online information resources, leading to the need for negotiation. This finding agrees with Courtney, Lippincott, and Langston who mentioned the settlement of consortia to cooperate in the purchasing of e-books in Chapel Hill, NC, California State University, Chico, and Dayton, Ohio\textsuperscript{16-18}. In Thailand, Chuenta also proposed consortia as a negotiating organization as well as Walters stated that there should be negotiations among publishers, vendors, libraries and readers especially in license terms, access restrictions and librarians’ expectations\textsuperscript{4,9}. The cooperation from publishers and vendors help libraries save administrative expenses as mentioned by Pickett at Texas A&M Universities Libraries\textsuperscript{19}.

The other challenging problem is the acquisition staff due to qualifications in knowledge, skills and sufficiency. This problem at Faculty of Medicine Library, Khon Kaen University, is close to that of the Faculty of Medicine Library, Chiang Mai University and Faculty of Medicine Siriraj Hospital Library, Mahidol University. This similar problem was mentioned in many studies, such as of Montgomery that libraries must have new staff position as ‘Electronic Resources Manager’ to negotiate, review contracts and interact with consortia for the purchasing\textsuperscript{20}, by Gardner that libraries required more staff responsible for selection process of online resources which are more complicated than print ones\textsuperscript{21}, by Kaur that the work load in online acquisitions was growing and the responsible staff needed keen training in online information resources\textsuperscript{3}, and by Pamornpipit that acquisition staff had to be developed and better trained in the use of the internet\textsuperscript{22}.

Conclusion

The problems of online information resources acquisition which Faculty of Medicine Library, Khon Kaen University faces now are more similar to those of the both regional medical school libraries than the other two libraries in Bangkok. The same results are found concerning the attributes of the four aspects for the proposed model. Most problems are similar to those in many libraries, both Thai and foreign, especially concerning the topics of participation of library users, cooperation with publishers or vendors, and...
acquisition staff’s quantity and quality. From the problems studied, the acquisition model of online information resources has been developed for the most part to benefit academic purposes, eventually (Fig. 10). The model can be applied to upgrade the acquisition task of online information resources as desired.

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Potential conflicts of interest

None.

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