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Impact of Internet on Schools of Library and Information Science in Thailand*

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Introduction

This paper aims to show how Internet has been integrated into and has affected schools of library and information science in Thailand. Its also suggests some guidelines for strategies to ensure that schools of library and information science, not only in Thailand but in other developing countries, can continue to meet the challenges posed by increasing use of information technology and results such as globalisation.

Internet has been widely used in libraries since its beginning and it has affected all aspects of library and information work. Mainly, Internet is used as a tool for access to information resources (Wang and Cohen 2000). It can be said that Internet has changed the fundamental roles, paradigms, and organisational cultures of libraries and also the role of the librarian (Pascoe, Applebee, and Clayton 1996; Saunders 1996; Abbas 1997; Note 1997). As a result, librarians and other information professionals have been affected by the change in their roles, knowledge, skills and competencies (Rowland 1998, Klobs 1996, Creth 1998, Rice-Lively 1997, Nobel 1998, Matson and Benki 1997, Abbas 1997, Woodworth 1997; Marshall et al. 1996). It is anticipated that the change of librarians' roles and competencies would directly affect library and information science education to produce a new type of information professional. Most schools of library and Information science and library educators seem to have a positive response to the changes. They try to find ways to adapt their own programs such that they not only attract new students, but also equip them with the ideals, values, and skills combining library and information concepts with the demands of society in the new age (Tomer, 1994; Pollicino 1999).

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Research by Wittig and Wolfram (1994), Beheshti (1999), SLA (1998), and Spink and Cool (1999) has revealed that library and information science schools are keeping up with the rapid changes that are taking place in information and communication technology. They have adapted themselves by changing the names of the programs or have revised their curricula, added new subject courses and extended their educational aims, or created new programs by merging with other schools. Information technology concepts and applications are mostly covered in all areas of LIS program. They affect every aspect of the curriculum. The newer areas such as database development, mathematical methods, electronic resources, Internet access tools, electronic libraries, and information and knowledge management, have been gradually moving up and increasing in large scale in the curriculum area. Together, networking and Internet concepts and resources have already found their way into many courses throughout library and information science programs and also tend to play an important part of subject contents in the courses and tools for teaching and learning activities (Wittig and Wolframe,1994). This has lead to a new type of education in the field, for example it is called " digital library education "in Spink and Cool's work. They also suggested that the digital library educational model and contents should be integrated into the library and information science curriculum area (Spink and Cool 1999).

However, this change can be clearly seen in only the United States, Canada and some of the developed countries. Because in these countries the status of technology and telecommunication infrastructure are advanced and has strongly impacted on the number and types of libraries they have, which also affects the foci of library and information science schools' programs. It can not be generalised to other countries, which have a different situation in relation to the advancement of technology development. These conditions may lead to the conclusion that studying the impact of Information technology, including networking and Internet, on library and information science education in each part of the world, is necessary. Based on these reasons, this study was conducted in Thailand. It is anticipated that the results of the study may be able to be used in the countries in South East Asia which have similar information technology circumstances, economic status, and culture.

Framework of study

The study framework was based on the concept of systems theory and implementation of innovation in organizations. Its is described in system terms and focuses on the process of putting inputs into the system (social system or organization system), the way inputs are processed by social organizational function, and outputs that are produced. When input factors are transited into the system for producing outputs, on going the process of the system, they will affect system structure or components such as the people, the working process, attitudes, behaviour of people etc. Consequently, they will impact on the goals of the system and produce new outcomes from the system (Ritzer 1996; Peerasit 1998; Roger 1995; Wigand 1996). Using the concept of the system in the research framework, *Internet* is defined as an input innovation which be put into system process of schools of library and information science, and whose their structures and working process are described as part of system.

Impact is defines as the implementation of Internet in the library and information science schools. It may lead to change in the schools' structure and functions such as curriculum structure, teaching-learning process, and staff 's knowledge and skills. These changes may lead to change in their outcomes (graduates and their new competencies) and lead to the creation of a new direction for schools of library and information science.

Research design

Survey research with cross sectional design was selected to conduct this research. A combination of questionnaires, interview, and document analysis methods was used for collecting data. The questionnaires for 146 academic staff in 16 schools of library and information science, were sent to heads

of the schools with an official letter from the Dean of the Faculty of Humanities and Social Science, Khon Kaen University, to request cooperation in distributing the questionnaires to the staff in the schools. Two or three weeks later, the researcher went to each of the schools to conduct the other research activities such as interviews, observation and collecting documents concerning the schools' programs and curriculum. It took about one or two weeks field work for each school. During that time, questionnaires were collected. If the staff had problems about the questions, the researcher could answer directly. 125 questionnaires, 85.6%, were collected. When they were edited, 118 questionnaires, 80.8%, were complete, 4.7% were incomplete. The main problem was that these respondents have had little experience of Internet, therefore they did not understand the contents of the questionnaires and were not able to answer.

The researcher interviewed 16 heads of schools of library and Information science during June – October 2000, to collect data about the schools' management, technology and Internet situation infrastructure in the schools and the perspective of the heads of the schools concerning the use of Internet in the schools. Also, document analysis was used to analyse 16 undergraduate and 9 graduate curricula in library and information science to extract information about the integration of Internet into the curriculum.

The data were statistical analysed by using the SPSS package for both descriptive statistics such as frequency, percentage, mean, standard deviation, and the correlation test among the variables by chi-square. The main purposes of descriptive analysis were presenting the current situation in relation to characteristics of the schools, academic staff demographic data, technology and Internet situation, and the situation of Internet use in the schools. The correlative testing among the variables and contributing case comparisons were extracted to find explanations for the differentials in the impact of Internet among the schools.

Research results

Change in library schools

The author's research has show that the schools are keeping up with the change in information and communication technology in Thai society. Some have changed the names of the programs and some have reviewed and updated their curricula especially since 1997 (see the data in table 1). It can not be said that they changed because of Internet, but have been forced by new information technology changing the way people communicate, learn and use of information, addition with the need of marketplaces. Professionals are now needed who can think conceptually and reason logically, using both that knowledge and advanced technologies to deliver the information services needed by society (Stueart 1999). The dominant change in curricula in Thai schools of library and information science is the addition of more courses and credits in the technology area. It may say that in Thailand, the name of the program is of greater significance than in some other countries. It is obvious showed significant correlation with the number of credits and courses of information technology area in the curricula and also the information support in the schools (see data in figure 1).

Table1. The name of the curriculum clarified by the period of development or revised before and since 1997

The curriculum which be developed or revised before 1997	No.	**The curriculum which have been developed or revised since 1997**	No
Library science	1	Library and Information science	4
Library and Information science	3	Information studies	2
Information studies	2	Information science	3
		Information Management	1
Total	6		10

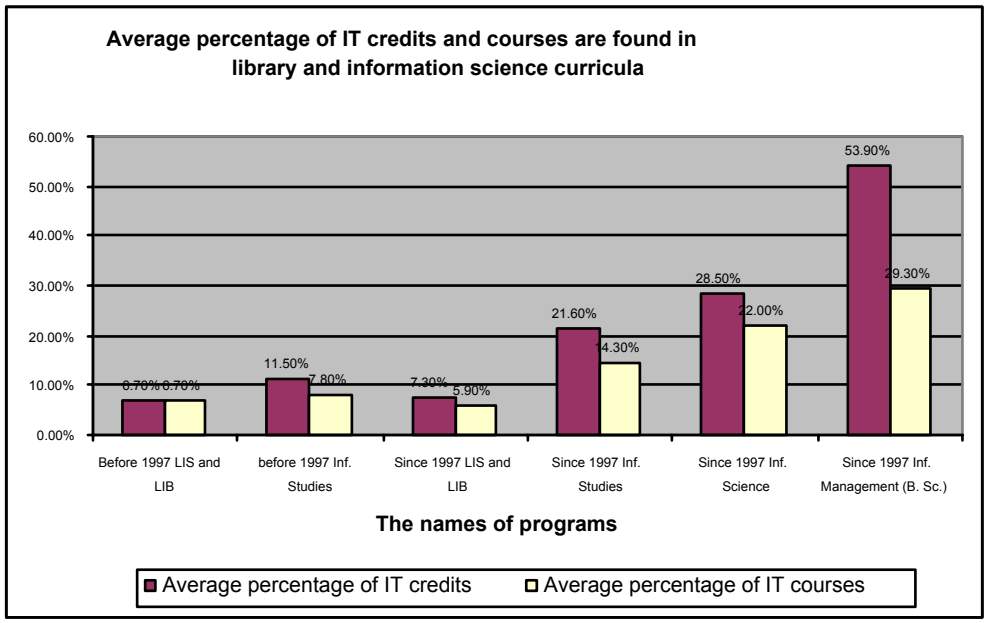
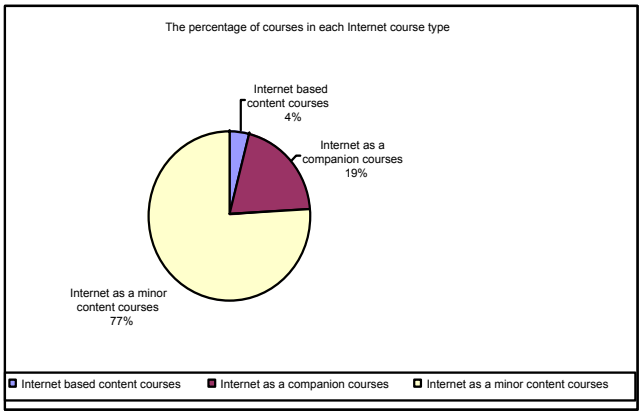


Figure 1

Besides changing the names of the programs and adding information technology courses, Internet has been also integrated into library and Information science curricula as a part of subject contents. About 47% of the courses have taught Internet as part of their contents. Most of them are teaching Internet contents as minor (Internet contents are less than 50% of the course contents), only 4.2% have Internet as the major component or Internet based courses, most of them are courses in information and storage and retrieval and information service areas (see data in figure 2)

Figure 2



Staff use of Internet

Internet is mostly used by academic staff as a tool for information access, and information resources for teaching preparation, research and academic work. It forms part of the content in library and information courses, especially in information service, information resources, and information storage and retrieval areas. However, the use of Internet and knowledge of its advantages are significantly correlated with the age of the academic staff as well as their knowledge, skills and experience in using computers and Internet (see data in figure 3,4 ,5)

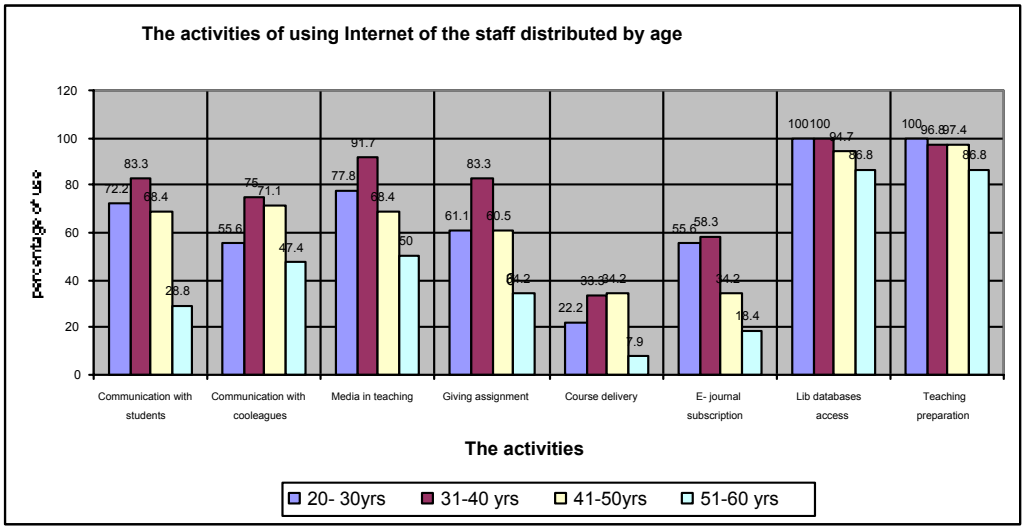
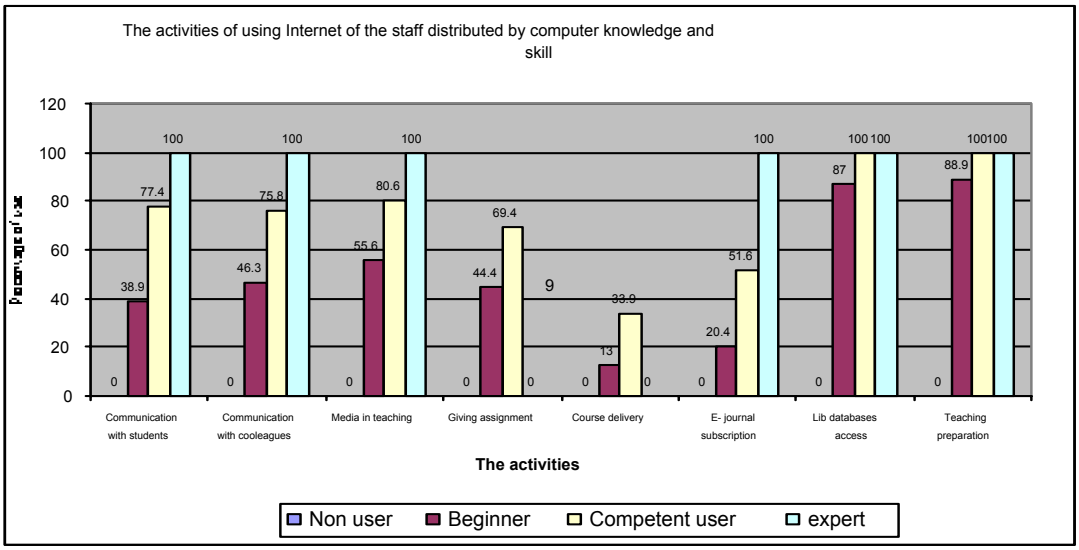


Figure 3



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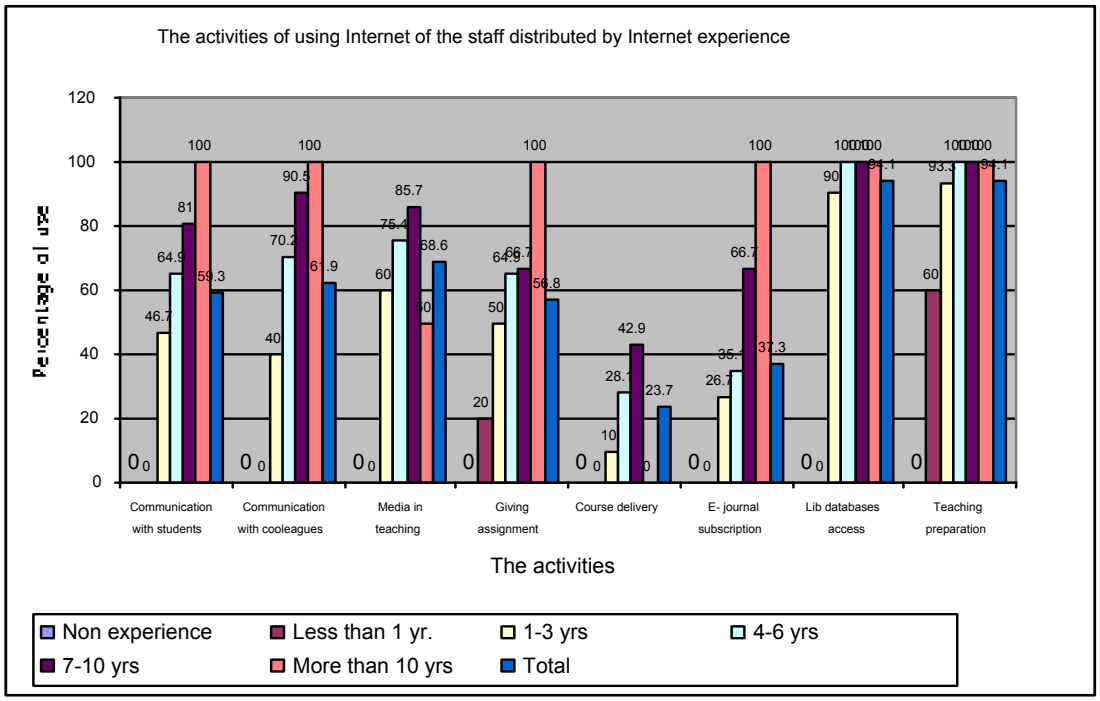

Figure 5

Internet infrastructure and support

Although information technology and Internet have been integrated as important parts and features of all library and information science curricula, the situation regarding information technology support in the schools is very different. Eleven schools were classified in the group insufficient technology support for teaching/ learning activities and for staff use. Of these, almost half have poor infrastructure and support (data in table 3). However, it is the schools which have developed vision or goal statements in relation to information technology, as well as schools which are located in universities having policies for information technology based teaching and learning, that have good information infrastructure and support (data in table 4). This demonstrates the importance of having heads of schools who have vision and can set appropriate goals. Equally important is the communication of these visions or goals to the staff, university administration and the public.

Table 3. Current situation of Information technology and Internet use in schools of library and Information Science in Thailand

IT Group	No of schools	No. of comp.	Computer provided for staff	LAB (yes)	LAN (yes)	Internet (yes)	Number of computers connected to Internet	Website (yes)
Group I Sufficient support and providing information technology infrastructure	5	27-68	Computers individually provided in the offices	5	5	5 (All 6+ years))	27 -68	5
Group II Insufficient infrastructure and support	4	6-30	Shared access with other staff	4	3	4 (3 for less than six years)	6-30	2
Group III Very insufficient infrastructure and support	7	1-9	Shared access with other staff	no	3	6 (All less than six years) in use all)	1-5	no
Total	16 (100.0)	16 (100.0)		9 (56.3)	11 (68.8)	15 (93.8)	15 (93.8)	7 (43.8)

Table 4 the number of schools in each visions group cross- tabulated by IT groups

IT groups	Vision groups			
	None	Not mention about IT	Universities' IT based teaching and learning	Schools' visions on IT
Group I : Sufficient support and providing information technology infrastructure	-	-	3	2
Group II: Insufficient infrastructure and support	1	3	-	-
Group III: Very insufficient infrastructure and support	3	4	-	-
Total	4	7	3	2

Recommendations

According to the research findings, Internet has been widely used in schools of library and information science in Thailand, but the conditions of use are varied depending on information technology situation and support. Therefore, there are some suggestion for strategies to ensure that schools of library and information science can continue to meet the challenges posed by increasing use of information technology and Internet.

1**. Recruitment of future heads of the schools with vision and good communication skills.** Head of school with good vision in IT and information profession is very important for current situation of schools of library and information science in Thailand, because the change of professional demand in the society. However, to recruit a kind of person is not easy in Thai universities, most of academic staff do not want to be heads of school, they want to deal with academic work more than administrative work. It may have more possible opportunity, if the universities offer more promotion and support both in higher position and salary for the position. The other possibility is training staff members in administrative and planing strategies. If they get more understanding about the importance of vision and goals in administrative work, it will be helpful for the heads of school in setting appropriate goals as well as communicating with them.

2. Provision of equal education. It is anticipated that difference in information technology conditions and support among the schools, will result in differences in the education received by their students. Therefore, the research proposes the concept of Web- based learning for sharing information and for teaching courses between library schools in Thailand. Those schools, which have good information technology infrastructure and support, could act as host webs or media for providing course contents to students and staff or other less well- support schools. Internet could be used as an effective communication media to assist in providing equal education in library education throughout Thailand.

However, it is not easy to create a big project with spend amount of budget in Thailand, especially in economic crisis situation, but if the project can give more benefit to majority group of people, the Ministry of University affairs will be considerable. Moreover, the project can firstly start in some parts or a small group such as a group of the schools in Bangkok or a group of the schools in a regional area, and later it will be extended to the others.

3. Staff training. Data from the research has shown that there is a linear relationship between knowledge and skills in using computer and Internet use of Internet service and use in teaching and learning process. The study also showed that a high percentage of academic staff, especially senior staff, are beginners in using computer and Internet. It is suggested that training programs and workshops in using the Internet in teaching and learning are needed. Senior staff who finished their education many years ago, and have not experience in libraries or information centres in the new information technology environment, should be provided with opportunities to train or observe in the workplace.

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Abstract

The paper looks at how Internet has impacted on the schools of library and Information science in Thailand, focusing on how it has been used and leading to change in teaching learning process, curriculum and the programs. 146 questionnaires were provided to the academic staff in 16 schools of library and information science together with interviewing 16 heads of the schools, and curriculum analysis. Results of the study show that the library and information science schools in Thailand are keeping up with the changes in information and communication technology. Their programs have been changed, especially since 1997; some of them are changing the name of the programs to information studies, Information science or information management. The data also indicates the correlation between the name of the programs and the number of courses and credits in information technology and Internet in the curricula, and with information technology support from parent universities. In addition, the visions or goals of the schools were found to correlate with Information technology and Internet support. Internet is already used in the library and Information science curriculum, in the teaching learning process and its contents are taught as a part of subject contents in library and information courses, especially in information service, information resources, an information storage and retrieval areas. However, the use of Internet in teaching learning process of academic staff shows significant correlation with their age, and their knowledge, skill and experience in using computers and the Internet.