

*A Study in Information Usage Behavior of Students in  
Rajabhat Rajanagarindra University*

Waraporn Sinthaworn

Rajabhat Rajanagarindra University, Thailand

0356

The Asian Conference on Sustainability, Energy & the Environment 2013

Official Conference Proceedings 2013

Abstract

The study had following objectives as: (1) to study information usage behavior of students in Rajabhat Rajanagarindra University, (2) to study about problems in information usage and (3) to study about requirements of the students in information usage. Sample comprised of 300 students. Data were collected by questionnaires analyzed by percentage, mean and SD. The results were: 1) most of the samples used Internet at their place. The most usage time was between 16:31 – 24:00. Most of samples used internet more than four hours/day. Most of samples had never used internet via mobile phone, never played online game and never utilized e-learning. 2) The facilities that were used to search for information were the Main Library, Bangkla Internet center, and Bangkla Library. The most used information source was WWW, second in rank was books and journals. On the other hand, the three least used information source were encyclopedia, personal source and database. 3) The samples utilized data for their assignments and daily life. The most used applications were search engine, communication programs, and e-mail service, respectively, however, they rarely used Internet to buy goods or services. In addition, the problems in using information were inadequate facilities, especially number of computers, and capacity of the computers. The other problems were computer software and service time. Moreover, the samples needed more computers (in more capacity) and more service time.

Keywords: Information Usage Behavior, Information Source

## **Introduction**

In the era of learning society, knowledge emerges for all time and people need to adapt to live in a quality and balance life. In education, it needs to adapt ideas, formulate and develop method according to the need of learners and intention of Education Act 1999, which has the final goal for continuous human development and encourage applying technology to the education system.

Information system is sets of data, which is synthesized from raw data and can be utilized in planning, development, controlling and decision-making. Reliable information leads to efficient decision. In addition, reliable Information system can lead to learning society too.

As the result of advance of information technology, the information sources have been increased and become diversity one. An obtaining of excess and unnecessary information, which is not useful for decision-making, also becomes a serious problem as it causes confusion in the information selection. Thus, the information literacy is an essential basic element which enables students to employ self-learning and also cultivates a research habit to students. The students are able to apply the using of information knowledge in professional practicing. The resource-based learning is a concept, which gives an importance on a learning of information process through both the information sources and the subject matter. The students are able to search, select, and use the knowledge from the various information sources, able to learn the information process, and able to gain the knowledge through problem solving and decision-making based on the using of information (National Forum on Information Literacy, 1998).

So, this study was conducted to gather information about students' information system using behavior at Rajabhat Rajanagarindra University and used result as guideline to develop the university's information system and encourage the students to utilize information system properly.

## **Materials and Methods**

### **Population and sample**

Population for this study was 3,011 students in Rajabhat Rajanagarindra University, which included every years and both full-time and part-time student. Sample was 300 students, which selected by simple random sampling.

### **Variables**

Independent variables were consisted of, i.e., gender, age, year of study, faculty, student status, and basic computer knowledge.

Dependent variables are using information system behavior, problem in using information system, and requirement in using information system.

## Methods

Researcher studied documents and research, both inside the organization and other sources to develop tool for collecting data. Developed tool was questionnaire about behaviors and opinion in using information system of the students. Then the data were collected in 2009 academic year, which data of full-time students were collected on weekdays and weekends for part-time students. The data were analyzed by percentage, average and standard deviation via computer program. Finally, analyzed data were summarized and discussed to report the result.

## Result

Two hundred eighty five out of three hundred sets of questionnaires were returned, which were equivalent to 95%. Data were analyzed and yielded result as shown in following tables:

Table 1: Frequency and Percentage by genders

Genders	Frequency	Percentage
Male	109	38.24
Female	176	61.76
Total	285	100.00

From table 1, it was found that from 285 returned questionnaires, the sample comprised of 109 males (38.24%) and 176 females (61.67%).

Table 2: Frequency and Percentage by genre of students

Genre	Frequency	Percentage
Full-time	150	52.63
Part-time	135	47.37
Total	285	100.00

From the table 2, it was shown that most of the samples were full-time students (52.63%) and the remaining were part-time students (47.37%).

Table 3: Frequency and Percentage by computer knowledge of students.

Computer knowledge level	Frequency	Percentage
High	63	22.11
Moderate	166	58.25
Low	51	17.89
Unspecified	5	1.75
Total	285	100.00

Results from Table 3 showed that most of sample had moderate computer knowledge (58.25%), while the remaining had high and low knowledge with the percentage value was 22.11 and 17.89, respectively.

Table 4: Frequency and Percentage by genre of students by information system knowledge of students.

Information system knowledge level	Frequency	Percentage
High	46	16.14
Moderate	134	47.02
Low	100	35.09
Unspecified	5	1.75
Total	285	100.00

Results from table 4 demonstrated that 134 students (47.02%) had moderate knowledge about information system. The remaining students had low and high knowledge about information system where the percentage value was 35.09 and 16.14, respectively.

Table 5: Frequency and percentage by student's behavior in using information system.

Content	Frequency	Percentage
1. Place of using		
1.1 The university	93	32.63
1.2 Home or Dormitory	170	59.65
1.3 Internet Café	19	6.67
1.4 Other place	3	1.05
2. Time of usage		
2.1 0:00-9:00 A.M.	10	3.51
2.2 9:01-12:00 A.M.	21	7.37
2.3 12:01 A.M. - 1:00 P.M.	85	29.82
2.4 1:01- 4:30 P.M.	25	8.77
2.5 4:31 - 12:00 P.M.	134	47.02
2.6 Conveniently	10	3.51
3. Interval of usage		
3.1 less than a hour	21	7.37
3.2 1 – 2 hours	32	11.23
3.3 3 – 4 hours	97	34.03
3.4 More than 4 hours	135	47.37
4. Using internet via mobile phone		
4.1 Yes	41	14.39
4.2 No	244	85.61
5. Playing online-game		
5.1 Yes	130	45.61
5.2 No	155	54.39
6. Using e-learning		
6.1 Yes	31	10.88

Content	Frequency	Percentage
6.2 No	254	89.12
7. Used facilities		
7.1 Library (main campus)	111	38.95
7.2 Library (Bangkla campus)	34	11.93
7.3 Computer & Internet Center (Bangkla campus)	108	37.89
7.4 Unspecified	32	11.23
8. Most used information source		
8.1 Person	1	.35
8.2 Book	80	28.07
8.3 Journal	5	1.75
8.4 Thesis	3	1.05
8.5 Encyclopedia	-	-
8.6 Data base	1	.35
8.7 World Wide Web	195	68.43
9. Least used information source		
9.1 Person	34	11.93
9.2 Book	8	2.81
9.3 Journal	10	3.51
9.4 Thesis	13	4.56
9.5 Encyclopedia	185	64.91
9.6 Data base	30	10.53
9.7 World Wide Web	5	1.75
10. Information sources used in doing assignment		
10.1 Internet	210	73.68
10.2 Library	69	24.22
10.3 Bookstore	5	1.75
10.4 Unspecified	1	.35
11. Information sources used in daily life		
11.1 Internet	221	77.54
11.2 Library	10	3.51
11.3 Bookstore	53	18.60
11.4 Unspecified	1	.35

Results in Table 5 showed that most students used Internet from their places (59.65%), whereas the second rank was from the university (32.63%). The time that most spent on using Internet was between 4.31 P.M. to 12.00 P.M. (47.02%) whereas the second rank of most used was between 12.00 A.M. to 1 P.M. (29.82%). It was found that the length of time required for using Internet, where most of them used

internet more than four hours a day (47.37%) and the second rank of time used was three to four hours a day (34.03%).

In addition, the result yielded that most of sample (85.61%) never used Internet via mobile phone, never played online game (54.39%), and never used e-learning (89.12%).

In the case of facilities in the university, it was shown that the most frequent use was the facility at library of the main campus (38.95%), while the second and third rank of most frequent use were Computer & Internet Center at Bangkla campus (37.89%), and library at Bangkla campus (11.93%), respectively.

According to information sources, it was found that WWW was the highest one that was used (68.43%), while the second and third high rank that had been used were book (28.07%), and journal (1.75%), respectively.

On the other hand, the lowest rank of sources that had been used was encyclopedia (64.91%), person (11.93%) and database (10.53%).

Finally, the source of information that was used to do assignments and daily life was Internet.

**Table 6: mean, SD and scale of students' internet activities**

	Activities	$\bar{X}$	SD.	Quality
1.	E-mail	4.32	.62	Often
2.	On-line games	2.21	.66	few
3.	Chat programs (such as MSN, Yahoo, ICQ, Skype)	4.45	.57	Often
4.	Social networks	4.01	.78	Often
5.	Download (music, movie, program)	3.32	.88	Moderate
6.	Upload (photo, video)	3.11	.78	Moderate
7.	On-line shopping	1.25	.65	rarely
8.	Entertainment news	4.06	.76	Often
9.	General news	4.11	.66	Often
10.	Search engine	4.86	.89	Always
11.	Watch video and listen music on-line	3.87	.58	Often
12.	Check study result	4.04	.64	Often
13.	University news and information	3.89	.77	Often

Results from the table 6 showed that the most often an activity was using search engine with the mean value was 4.86, while the second rank of an activity was chat program (4.45), and the third rank of an activity was e-mail. On the other hand, the activity that was rarely happened was on-line shopping (1.25).

## Summary

### General information

It was found that 285 returned questionnaires; the samples were 109 males (38.4%) and 176 females (61.76%). One hundred and fifty were full-time student (52.6%) and 135 were part-time (47.37%), most of sample have moderate knowledge about computer and information system.

### Behavior in using information system

Most of sample used Internet at home or dormitory (59.65%) and second to the most use was at the university (32.63). The time interval of most usage was between 4.31 P.M. to 12.00 P.M. (47.02%), and second to the most use was between 12:00 A.M. to 1:00 P.M. (29.28%). It was found that the estimated time, which required for using Internet was over four hours/day (47.37%) for the most frequent use, while second rank to the most frequent use was three to four hours/day (34.03%). Most of samples (85.61%) never used Internet via mobile phone, whereas 54.39% never played on-line games and 85.61% never used e-learning system. The university's facilities that most frequently used by sample were the library (main campus), computer and Internet center (Bangkla campus), and library (Bangkla campus), respectively.

WWW appeared to be the most frequently used information source (68.43%), while the second rank of the most frequently used was books (28.07 %), and the third rank of the most frequently used was journal (1.75 %). The lower frequently used information source was encyclopedia (64.91%), person (11.93%), and database (10.53%), respectively. Internet was the most frequently used information source for doing assignment and daily life. The most frequent activity related to the use of WWW was used as search engine (mean = 4.86), chat program and e-mail with mean value was 4.45 and 4.32, respectively. In another way, the rarely occurred activity was on-line shopping, which the mean value was 1.25.

### Problems in using information system could be listed as follows:

1. Inadequate facilities
2. Insufficient number of computers
3. Capacity of computer and virus infection
4. Service time is too short
5. Problem in information acquiring.

### Requirement in using the university information system could be listed as follows:

1. Increase more computers.
2. Increase capacity of the computers.
3. Extend service time.
4. Increase capacity of system.

## Discussion

Most of samples have moderate knowledge about computer and information system. It means that the university should develop students in computer literacy and using information system. Short training programs or workshops may be suitable for serving the purposes.

About students' behavior in using information system, the result yields that they has used information both at home and at university. So, they can use it anywhere and anytime, but the university should provide more facilities to increase opportunities for students to access information system. Most of them have been using Internet more than four hours/day. It may convey that students lack of skill in searching information or the computer lacks of capabilities (or both), so, the university should improve the computer capabilities to match to enormous knowledge sources in the present time.

WWW is much more used than book, which can imply that it is more convenient in searching and recording retrieved information. In addition, it can conclude that library service time is insufficient, especially for part-time students who come to campus only on weekend. Then, the university should arrange training course to increase student's skill to use information system more efficiently. The most frequently used application is search engines, which reflect that it is the most convenient tool for searching information. In case of communication applications, chat program and e-mail are still popular among the students because they can use them to contact with both friend and teacher, and they are convenient, economic, and fast way to send various type of information.

In the aspect of problems, facilities, number of computers, capacities of computers, virus infection, service time, and information accession are addressed problems. The university needs to improve facilities according to the problems.

## References

- Breivik, P.S. and Gee E.G. (1989). **Information Literacy: Revolution in The Literacy**. New York: American Council on Education and Macmillan.
- Bundit A. (2007). **A proposed instructional web-based model with resource-based learning process for developing analytical thinking and information utilization for problem solving of undergraduate students, Walailak University**. Doctoral Dissertation, Ph.D. (Educational Technology and Communications). Bangkok : Chulalongkorn University.
- National Forum on Information Literacy. (1998) **American Library Association Presidential Committee on Information Literacy**[online] . Available from:  
<http://www.infolit.org/documents/89Report.html>[2006 , February 21]
- Rattanapian V. (2005). **Instruction to Web-Based Instruction**. Bangkok : Chulalongkorn University.

Ratana-Ubol A. et al. (2006). **The Development of model in developing information literacy for Thai society.** Bangkok : Chulalongkorn University.





