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Somsak Sriborisutsakul
Chulalongkorn University, somsak.sr@chula.ac.th

Chindarat Berpan
Chulalongkorn University, chindarat.b@chula.ac.th

Oranuch Sawetrattanasatian
Chulalongkorn University, oranuch.s@chula.ac.th

Duangnate Vongpradhip
Chulalongkorn University, duangnate.v@chula.ac.th

Nenuphar Supavej
Chulalongkorn University, nenuphar.s@chula.ac.th

See next page for additional authors

Somsak Sriborisutsakul, Chindarat Berpan, Oranuch Sawetrattanasatian, Duangnate Vongpradhip, Nenuphar Supavej, Wachiraporn Klungthanaboon, and Saowapha Limwichitr, "Undergraduate Students' Information Literacy Behaviour in Chulalongkorn University." *Proceedings of the IATUL Conferences*. Paper 18.
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Presenter Information

Somsak Sriborisutsakul, Chindarat Berpan, Oranuch Sawetrattanasatian, Duangnate Vongpradhip, Nenuphar Supavej, Wachiraporn Klungthanaboon, and Saowapha Limwichitr

UNDERGRADUATE STUDENTS' INFORMATION LITERACY BEHAVIOUR IN CHULALONGKORN UNIVERSITY

Somsak Sriborisutsakul, Chindarat Berpan, Oranuch Sawetrattanasatian,
Duangnate Vongpradhip, Nenuphar Supavej, Wachiraporn Klungthanaboon,
Saowapha Limwichitr

Department of Library Science, Faculty of Arts, Chulalongkorn University, Thailand
e-mail addresses: somsak.sr@chula.ac.th, chindarat.b@chula.ac.th, oranuch.s@chula.ac.th,
duangnate.v@chula.ac.th, nenuphar.s@chula.ac.th, wachiraporn.k@chula.ac.th,
saowapha.l@chula.ac.th

Abstract This paper examines the ways in which Thai undergraduate students in Chulalongkorn University find, evaluate, manage, and apply the needed information for doing their course-related assignments and everyday life research. The information literacy behaviour studied includes the undergraduates' use of information resources, evaluation of information, research styles, and difficulties encountered during research practices. The survey instrument originally developed by Project Information Literacy of the University of Washington Information School was used as the basis for designing a questionnaire of this study. The questionnaire, then, was distributed to sophomores, juniors, and seniors enrolling at Chulalongkorn University. The sample for the student survey was 378 respondents from 18 faculties. Data collection was completed by the end of March 2011. Overall a 95% response rate was achieved. The findings of this study indicate that the most frequent source of information the majority of the undergraduates used for their course-related assignments and everyday life research is search engines. Most undergraduates always pay attention to credibility of library materials and web content when evaluating information in hand. Regarding the survey respondents' research styles, they usually make action plans and create search terms before writing term-papers. They also have problems with deciding what to do at the early stage of research process, narrowing down a topic, and determining credibility of information resources.

Keywords Information literacy behaviour, Chulalongkorn University students, Course-related assignments, Everyday life research

Introduction

Information literacy (IL) is basically an active process of searching and using found information effectively that influences a quality way of life of people in a modern society. The people who become information literate can apply meaningful information to aspects of their lives in relation to personal needs, family matters, working practices, and social responsibilities.

Library and information professionals and academics take more of an interest in the IL field over the three past decades to engage in any of activities in connection with the development of IL skills in schools, colleges, or universities. It is accepted that students at every educational level have to be roughly prepared to: 1) make their accurate information decisions, 2) seek and locate the right information at the right time, 3) locate appropriate information sources, 4) employ information technology suitable for accessing information materials, and 5) evaluate, analyse, and synthesise content ethically.

In the present, global economy is evolving from the growth of industry into the focus of intellectual property and creative work. This knowledge-based economy requires staff and workers possessing IL skills to strengthen each country's economic state. The more employees have practical knowledge, the larger numbers of innovations emerge in the workplace. Meanwhile, there is a rapid change in information and communication technologies that facilitate production, storage, dissemination, and access of information more efficient than ever before. Both economic and technological factors make many institutions in the education sector

become aware of educating pupils, students, and adult learners about IL skills because these target groups are future workforce in the knowledge-based society. Thus, there are several IL frameworks proposed as the guidelines for improving, developing, and assessing performance of information literate learners through the varieties of IL teaching activities.

In the United Kingdom, Society of College, National and University Libraries (SCONUL) first announced "Information Skills in higher education: a SCONUL position paper" to suggest the Seven Pillars of Information Skills model that include (SCONUL, 1999):

- Identify — able to identify a personal need for information
- Scope — can assess current knowledge and identify gaps
- Plan — can construct strategies for locating information
- Gather — can locate and access the information needed
- Evaluate — can review the research process and compare and evaluate information
- Manage — can organise information professionally and ethically
- Present — can present the research results and synthesise existing information to create new knowledge

Association of College and Research Libraries (ACRL) introduced in 2000 "Information Literacy Competency Standards for Higher Education" to educators for developing IL skills in American institutions. The following five standards cover the whole process of assessing information literate students (ACRL, 2000):

- Determining the nature and extent of the information needed
- Evaluating needed information effectively and efficiently
- Analysing information and its sources critically and incorporating chosen information into each individual's knowledge base and value systems
- Using information effectively to complete a specific purpose
- Understanding many of the economic, legal, and social issues surrounding the use of information, and accessing and utilising information ethically and legally

United Nations Educational, Scientific and Cultural Organization (UNESCO) is a governing body internationally campaigning for years to implement IL initiatives as a part of lifelong learning programmes. Interesting examples of its initiatives are logo design contests, training courses for school teachers, and IL workshops arranged in developing countries (UNESCO, [n.d.]). UNESCO Office in Bangkok, Thailand, organised an international conference on the development of media and information literacy indicators in 2010. A number of experts from different nations were invited to this international event. A mutual conclusion of the conference is that there are few pieces of reliable information on IL behaviour collected for UNESCO's policy making. This prevents educators and researchers in library and information science designing IL indicators suitable for comparatively reporting the IL status of each member country (UNESCO, 2010). Due to the 2010 conclusion, the project called "Asian Survey of Information Behavior of College Students" (ASIBCS project) was launched. There were many nations taking part in this project, for instance, Malaysia, Singapore, India, Sri Lanka, Pakistan, Bangladesh, and China.

Srinakharinwirot University (SWU)'s Faculty of Humanities Department of Library and Information Science participated in the ASIBCS project and was appointed as a survey coordinator in Thailand. Chulalongkorn University (CU)'s Faculty of Arts Department of Library Science was one of research teams which were invited by the SWU to join the national survey for finding out IL behaviour of Thai university students. The CU researchers accepted this invitation in the belief that the survey results would allow university executives understand the CU undergraduates' IL behaviour in the current situation. It is also expected that the ASIBCS results would benefit higher education leaders or policy makers at a national and regional level.

In the mean time, the CU research team developed a research proposal titled "Undergraduate Students' Information Literacy Behaviour in Chulalongkorn University" to get financial support from the Faculty's Research Division. Its proposal strictly follows the ASIBCS theoretical framework that concentrates on the use of information resources, evaluation of information, research styles, and difficulties encountered during their information-seeking practices in connection with the completion of course-related assignments and the conduct of everyday life

research. The key findings found in the CU would be combined with those of other member universities to describe a holistic baseline assessment of undergraduate students' IL behaviour in Thailand.

Research purpose

The purpose of this quantitative inquiry was to examine IL behaviour of the CU undergraduate students. The word 'behaviour' in the context of this survey was defined as a wide range of the students' main activities that they wanted to do to finish their course-related assignments and conduct everyday life research, i.e., how they need, seek, compile, evaluate, manage, and use information. In this regard, there were four key issues to be studied in the survey — the students' use of information resources, evaluation of information, research styles, and difficulties encountered during their research practices.

Methodology

For the academic year 2010 the CU had 16,774 undergraduates (from the second to the fourth year of their studies) distributed among 18 faculties. Based on the calculation using Krejcie and Morgan's (1970: 606-610) statistical table, the estimated sampling size for a population of this survey was 378 stratified by their subject areas and years of education.

The survey questionnaire was designed on the basis of the University of Washington Information School's data collection instrument, which had been originally developed within its Project Information Literacy (PIL). As a coordinator overseeing the ASIBCS project in Thailand, the SWU researchers asked an expert on foreign languages to translate the PIL instrument from English into Thai. This local version was also refined and approved by UNESCO's Regional Research Committee. It was divided into three parts: 1) background information to respondents (5 questions), 2) information behaviour of accomplishing course-related assignments (9 questions), and 3) information behaviour of conducting everyday life research (5 questions).

Results and discussions

The entire sample received formal messages inviting participation in the survey. Of the 378 CU undergraduates, 359 completed the questionnaire, a response rate of 95%. The respondents consisted of 186 males and 173 females. Most of them had been studying in the second year of their courses and belonged to 21-22 years group. The majority of the CU undergraduates came from Faculty of Engineering, Commerce and Accountancy, and Science respectively. Regarding to their subject areas, they were mostly grouped into Social Sciences/Humanities, Engineering, and Health Sciences respectively.

Based on the survey conducted, the key findings can be summarised as follows:

1. Information behaviour of accomplishing course-related assignments

Among 10 types of course-related assignments appearing in the questionnaire, 240 of the respondents for this survey agreed that their lecturers always assign them some tasks of giving presentation in classes together with submission of term-papers. It may be that oral presentation is one of suitable methods of assessing undergraduate students' performances. This method allows the undergraduates to reveal their understanding as well as application of academic knowledge. It also stimulates the presenters to share interesting ideas with their classmates.

With regards to the respondents' subject areas, most social sciences/humanities undergraduates frequently had to write term-papers to express opinions on various issues. It is likely that lecturers in this subject area want their students to logically and critically give some thoughts, holistically explain social situations or thoroughly analyse literature. Meanwhile, the majority of business undergraduates in the sample received course-related assignments in forms of analysing case studies and writing case reports. This reflects the importance of employing case analysis method to business students who need to clearly understand

management styles in different kinds of organisations, prepare themselves for business administration practices, and train themselves to find a solution to real problems systematically.

In response to the questions about information sources used for course-related assignments, 247 of the respondents for this survey almost always used search engines when looking for information for doing their assignments. This may be due to such search engines have ease of use, convenience of access, and fast retrieval of information on the Internet by putting keywords into search boxes or browsing through web directories. Also, many undergraduates already become accustomed to search features, interfaces and results pages provided by web search engines according to previous research into college students' information-seeking behaviour (e.g. Currie, 2010; Head & Eisenberg, 2010b; Mizrachi, 2010).

Other sources the CU undergraduates most often consulted were course readings, classmates, and Wikipedia respectively. It can be assumed that course readings offer details of what lecturers want to teach in classrooms. This kind of source can make students better understand the scope of learning issues to be covered in courses, and helps them choose the right topic for assignments that fit the lecturers' requirements.

Many CU undergraduates in the sample also preferred getting advice from their classmates. It is possible that students often use this kind of source because of its acquaintance, convenience, and proximity. However, the architecture and fine arts students for the survey did ask their classmates sometimes, but not very often. The reason for this may be due to the nature of artistic assignments that emphasises individuals' creative thinking rather than shared interests.

Another source frequently used by the CU undergraduates was Wikipedia. It is a starting point which they consulted at an early stage of doing course-related assignments. Wikipedia provides current, understandable and accessible digital content. It enables students to find out search terms, define research topics, and click on other links to visit relevant web pages. That is why Wikipedia is popular with college students who have grown up with information technology (Head & Eisenberg, 2010a; Dubicki, 2010; Mizrachi, 2010; Richardson, 2009).

It is apparently from the survey results that 114 CU undergraduates never used librarians as a source for connecting them to information they needed to do course-related assignments. It is possible that students may take little interest in librarians' roles remote from their research routines for coursework. Moreover, they seem less familiar with requesting librarians' helps in comparison with other information sources.

In response to the question about evaluation of library materials for doing course-related assignments, the majority of respondents often considered whether a library source has a bibliography or references. This finding shows that students are generally aware of trustworthy information they obtain in the beginning. Their use of the library sources with bibliographies can convince lecturers that they try hard to review relevant literature, and ensure that their written assignments rely on the reliability of previous studies. In addition, other criteria the CU undergraduates sometimes used in evaluating what they found through the libraries embraced timeliness of content, different viewpoints represented in materials, and the provision of credits to sources cited by authors.

Responses to the question concerning evaluation of web content for coursework research showed that the CU undergraduates often considered timeliness of digital content and web authors' credentials. This finding is in agreement with the studies of Mizrachi (2010) and Head & Eisenberg (2010b) which indicated that both criteria are perceived by college students as a crucial consideration when they search for information on the World Wide Web (WWW). Examples of other criteria the survey respondents sometimes used in evaluating the online sources embraced different viewpoints represented on web pages, web site addresses/domains (URLs), active hyperlinks, and bibliographies/references given by web authors.

Regarding to the question about groups of people from whom the CU undergraduates sought advice on evaluating course-related sources, data from the questionnaires indicated that the undergraduates frequently asked for their classmates' assistance. A possible explanation for this might be that it is easy for students to consult friends whenever they want. Sometimes

those classmates can also make helpful suggestions because they have experience of interpreting course assessment requirements in the similar situations faced by the students.

In terms of research styles and practices during the approach to coursework assignments, at the outset the CU undergraduates often started creating search terms to discover needed information, and developed an outline for how to proceed with the assignments. It may be that figuring out keywords as the search terms enables students to conveniently gather a lot of useful information for doing the assignments. Developing the working outline, furthermore, facilitates a good choice of research topics that are academically and practically appropriate for writing term-papers. This implies that college students usually apply their IL skills to the completion of course-related assignments at the planning stage of research process.

When asking the respondents about productivity tools used for supporting their course-related tasks, it was found that most undergraduates in the sample employed document sharing web application (e.g. Google Docs) and voice over Internet protocol (VOIP, e.g. Skype). 'Learning something new' also mattered to the majority of the CU undergraduates after working on their term-papers in addition to three basic tangible rewards — 'getting a good grade', 'finishing the assignment', and 'passing the course'.

Finally, the survey data revealed nine challenges associated with course-related research process that the students in the sample felt difficult for them to deal with. These problems are as follows: 1) getting started on the assignment, 2) defining a topic for the assignment, 3) narrowing down the topic, 4) finding articles in the research databases on the library's web site, 5) finding up-to-date sources, 6) filtering irrelevant results while searching information, 7) integrating different sources from research into the assignment, 8) writing about what is found, and 9) knowing whether a source to be used constitutes plagiarism or not.

2. Information behaviour of conducting everyday life research

News and recent events were the topics on which most CU undergraduates undertook their everyday life research. This may be due to pieces of information about news and recent events involve students' daily lives. They therefore have enthusiasm for conducting research to update these topics for personal use almost every day. Also, the CU undergraduates who varied in their subject areas (e.g. Social Sciences/Humanities, Engineering, and Health Sciences) frequently did a search for something related to what they were studying in class.

In response to the question about resources used for discovering everyday life information, the survey respondents almost always used search engines and often employed Wikipedia to find their needed materials. Meanwhile, research databases on library web sites were sometimes used by the respondents. This finding shows that there are no differences in the CU undergraduates' information-seeking behaviour between their course-related and everyday research. A possible explanation for this might be that in the present students' learning activities (personal or educational purposes) are influenced by the Internet and digital media. It is assumed both influential resources enable the students to conveniently and efficiently find needed information in time. Moreover, the CU undergraduates often considered timeliness of digital content and web authors' credentials when they had to evaluate everyday information found on the WWW.

Regarding to the question about groups of people from whom the CU undergraduates sought advice on evaluating sources for everyday life research, data from the questionnaires indicated that the undergraduates frequently asked for their classmates' assistance. This is consistent with the results shown in the part of the students' information behaviour of assessing course-related sources.

Finally, the survey data revealed three challenges associated with everyday life research process that the students in the sample felt difficult for them to deal with. These problems are as follows: 1) determining trustworthy sources of everyday life research, 2) narrowing down a topic for everyday life research, and 3) getting started on everyday life research.

Recommendations

1. The CU librarians should train their users to have IL skills, especially searching and evaluating information on the Internet, since the majority of the CU undergraduates for this survey always use electronic information sources, like search engines. Those skills can help students efficiently and effectively find out needed information as well as select quality information to acquire for doing coursework assignments and everyday life research.
2. The CU libraries spent a lot of budget on the purchase of scholarly research databases, but the students less often use these valuable resources to accomplish course-related assignments and carry out everyday life research. Thus the libraries should hurry to promote an increase in the use of the databases provided on their web sites.
3. The CU libraries should deliver proactive public relations to inform users about the provision of their reference collections and information services. Furthermore, the CU librarians should make users realise their roles in supporting research process so that the students look to them for professional guidance on how to find and evaluate library sources, including web content.
4. IL skills are necessary for undergraduate students to complete course-related assignments and undertake everyday life research. Universities should actually encourage faculty members to integrate training sessions of IL skills into classroom activities on any subjects.
5. Each lecturer setting coursework research or term-papers should suggest their students: plan how to proceed the assignment, learn techniques for getting started on the assignment, define a research topic, know methods of presenting term-papers, limit the scope of research topics, select right information for accomplishing course-related assignments, etc.

Future work

There is much potential for further work in the area of Thai university students' IL behaviour which includes:

1. Other methods for assessing students' IL skills, e.g. standardised tests, should be applied to future studies in addition to the students' self-assessment.
2. More research should be done to investigate the outcome of activities implemented for building up students' IL skills by using various approaches that enable us to gain better methods for assessing the students' skills.

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