Information Literacy Assessment at the University of Zagreb: an Undergraduate Students’ Perspective

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Abstract - Information literacy represents the set of skills that enables individuals to identify, locate, evaluate and utilise relevant information for a certain task. This paper presents results of a survey regarding information literacy, carried out on undergraduate students of the Department of Information and Communication Sciences at the Faculty of Humanities and Social Sciences, University of Zagreb. Previous surveys had asserted the need to include information literacy or information competencies, differentiated from already present tool literacy or technological competencies, in students' curricula on the University. The aim of this survey was to analyse the students' information competencies as well as examine the students' attitude towards introducing an undergraduate course, during which they would learn how to efficiently search for information in the electronic environment while preparing seminar papers and exams. Furthermore, to gain an insight into the students' information retrieval accuracy in course-related research, the authors of this paper shall evaluate their information behaviour, i.e. investigate whether the students develop an overall research plan or search in relevant information sources, e.g. peer-reviewed databases etc. The research results can be helpful to determine the importance of information awareness at this level of education.

I. INTRODUCTION

Information literacy or information competencies of students, their ability to discern relevant from irrelevant information during research used for personal and professional purposes, has been the subject of a numerous quantity of papers in the field of information and communication sciences [1]. Differences between tool literacy or technological competencies and information literacy, defined as a term that represents the set of skills that enables individuals to identify, locate, evaluate and utilise relevant information for a certain task, have been evaluated in different studies locally, in Croatia, and globally. Concerning the skills of undergraduate students at the Department of Information and Communication Sciences at the Faculty of Humanities and Social Sciences, University of Zagreb, in their information retrieval accuracy in course-related research, evaluations on the information behaviour have previously been done on previous generations. The main question is do undergraduate students of newer generation feel the need that information literacy or information competencies should be included in students’ curricula?

II. RELATED WORK

According to [2], information behaviour represents the totality of human behaviour in relation to sources and channels of information including both active and passive information-seeking, and information use, those activities a person may engage in when identifying his or her own needs for information, searching for such information in any way, and using it or transferring that information. In other words, it describes the user's information need, the way of seeking, disseminating and using information in different contexts [3].

The American Library Association states that information literate persons “know how to learn because they know how knowledge is organised, how to find information and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning, because they can always find the information needed for any task or decision at hand” [4, 5].

According to a research, “information behaviour patterns are significantly influenced by the ever increasing sophistication of information resources and technological developments. A crucial element of information behaviour research is applied to the design of information literacy strategies” [6]. Furthermore, current educational systems thrive for student-centred active, flexible and problem-based learning, which emphasises the students' independent information seeking [6].

A survey shows that the majority of students are familiar with the concept of e-learning, consider it supplementary to traditional learning and that the contents they use most often are presentations used in lectures, submission of homework and seminar papers, course descriptions and reading lists. Furthermore, the authors conclude that they “believe that this type of research should be conducted regularly on an annual basis, thus enabling e-learning to be improved” [7].

Another research concluded, that “it would be wrong to claim that users are incapable of finding information by themselves as it would be wrong to claim users are...”
completely independent in forming their information queries. Accepting the fact that we have moved from system-centred to user-centred information environment would make a good start. Developing course curricula and library activities according to that would mean a great step forward, a step everyone involved in education process has to take in form of an interdisciplinary activity” [8]. The results that arose in this work concluded that information sources and the ways of retrieving information should be part of the curriculum, and that future information specialist (i.e. students of the Department of Information and Communication Sciences) should have more opportunities to learn about information, specifically in an electronic environment, as part of their formal education [8].

One article states that with the introduction and extensive use of electronic information in classrooms the need for information literacy competencies which are necessary for the learning process became more than apparent. “Hence, the ability to meaningfully interact with a wealth of information is deemed more important than ever. More specifically, this correlation has been proved by numerous investigations and studies confirming that academic success and the effectiveness of learning depends on competencies in accessing, evaluating, synthesising, communicating and ethically using information” [9, 10, 11].

The authors also affirm that “although the conceptual core of information literacy, with its emphasis on acquiring abilities that enable one to ethically seek, use and create information, has remained quite stable since the term was first introduced, theoretical foundations of information literacy as well as ideas related to its practical applications and processes have constantly been subject to revision and re-examination” [12].

Reference [13] states that information literacy can be approached as an object of teaching as well as an object of learning, and that it is interesting to evaluate the opinions of undergraduate students on the ways of implementing information literacy in the curricula and their high response percentage to introducing professional education of the subject in one or more courses.

III. RESEARCH METHODOLOGY

The research method was an online survey, which was conducted via the Omega system (https://omega.ffzg.hr/), a customised version of the Moodle Learning Management System (LMS) at the Faculty of Humanities and Social Sciences, introduced in the academic year 2004/2005 [6]. The research carried in February 2015. Two courses (“Information sources and service” and “Machine translation”) were researched by means of the survey method.

Undergraduate students were asked to anonymously complete a voluntary questionnaire that consisted of ten questions: one closed question asked for a short answer, two questions provided multiple choice answers, one open-ended required the students to write down their own opinion, two questions used grading from 1 to 5, and the last four questions were used to gather data about the students' gender, age, study groups and year of study. The two questions (questions 3 and 5) that used grading from 1 to 5, 1 being the lowest and 5 the highest value, asked students to grade their competencies using the following information sources/tools: Google, Google Scholar, the library and databases (of scientific publications and citations), and to grade the corresponding availabilities.

The first question asked the students to choose which of the aforementioned sources/tools they use in preparation of seminar papers and exams, whereas the second question asked them to write which one of the four they use most often.

The fourth question asked the students who of the following they consult when looking for guidance in using information sources/tools: colleagues, teachers, family members, other. The option “other” was provided with a blank space in order to enable writing potential answers.

Question 6 was two-fold. It asked students if they did or did not think there is a need to include professional education of information literacy or information competencies as part of one or more courses at the undergraduate level of study. They had a choice between answering “Yes” or “No” and a blank space was added for the students to write an explanation of their answer, independently and regardless of their affirmative or negative opinion.

Questions 7 and 8 were about identifying gender, and age, respectively. Students’ age was divided into three possible categories: from 18 to 20, from 21 to 25, and over 25. The last two (questions 9 and 10) had blank spaces in which students could write their study group and year of study.

IV. RESEARCH RESULTS

The questionnaire was finished by 40% of the students (i.e. 18, out of 45 students enrolled in both courses), of which all were undergraduates. The responses from graduate students were not taken into consideration for the results of this survey. The following table gives an overview of students’ gender, age and year of study (Table I).

| TABLE I. INFORMATION ON RESPONDENTS |
|-----------------------------|-------------|
| Gender | Male | 6 (33.33%) |
| | Female | 12 (66.66%) |
| Age | 18-20 | 1 (5.55%) |
| | 21-25 | 17 (94.4 %) |
| | > 25 | 0 |
| Year of study | First | 1 (5.55%) |
| | Second | 0 |
| | Third | 17 (94.4 %) |
| Total number of respondents | 18 |

The first question asked the students to choose which of the following information sources/tools they use in
preparation of seminar papers and exams: Google, Google Scholar, library and databases. Fig. 1 shows that Google is used by all of the respondents (18), Google Scholar by 9, the library by 16 and databases by 11 students. Google Scholar is therefore not being used by 50% of the respondents.

For Google, 10 students graded their competencies with a 5, and 8 students with a 4. Grades lower than 4 were not given. For Google Scholar, 2 students graded it with a 5, 5 with a 4, 5 with a 3, 1 with a 2, and 5 with a 1. It is evident that Google Scholar is graded much lower, i.e. almost 30% of the respondents have no competencies whatsoever in using Google Scholar. Regarding the library, 9 students graded their competency in using it with a 5, 6 with a 4, 3 with a 3 and none with a 2 or 1. Concerning their proficiency in database research, 2 students graded it with a 5, 6 students with a 4, and also 6 students with a 3, 2 with a 2 and 2 with a 1. Highest average score is given to Google (4.56), followed by the library (4.33), databases (3.22) and then Google Scholar (2.89).

One multiple choice question (question 4) asked who is assisting them in using the information sources/tools. “Colleagues” had the highest response (17), followed by “teachers” (8) and “family members” (1). The option “other” had also one response: “persons I feel are experts in the particular field”.

The fifth question asked students to grade the accessibility of the information sources/tools. For Google, 9 students graded its accessibility with a 5, 8 with a 4, 1 with a 3 and none with 2 or 1. For Google Scholar, 1 student graded its accessibility with a 5, 5 with a 4, 8 with a 3, 1 with a 2, and 3 with a 1. Three students graded the library’s accessibility with a 5, 9 with a 4, 5 with a 3, none with a 2, and 1 with a 1. Regarding the databases, 2 students graded its accessibility with a 5, 10 students with a 4, 3 with a 3, 2 with a 2 and 1 with a 1.

Average values of the respondents’ answers are presented in Fig. 4, showing an evident trend similar to the trend in question three, indicating correlation to a certain extent between competencies in using information sources/tools and their availability. Namely, again highest average score is given to Google (4.44), followed by the library (3.72), databases (3.56) and Google Scholar (3.00).

Figure 1. Usage of information sources/tools while preparing seminar papers and exams.

The second question asked which of the four aforementioned information sources/tools they use most often. Google is the most used tool for 10 students, followed by the library (6), whereas Google Scholar and databases are most often used only by 2 students, as shown in Fig. 2.

Figure 2. What information source/tool do you use most often?

The third question asked the students to estimate their competencies in using the aforementioned information sources/tools, on a scale ranging from 1 to 5. Fig. 3 shows average values of the respondents’ answers.

Figure 3. On a scale from 1 to 5, estimate your competencies in using the aforementioned information sources/tools.

The sixth question was divided into two parts. For the first part of the question, 17 students answered “Yes” and 1 answered “No”. This shows that almost all of the respondents think that inclusion of professional education of information literacy or information competencies as part of one or more courses at the undergraduate level of
study is necessary. Of the 18 students, 16 decided to explain their answer, whereas 2 students left the space for explanation blank.

In their explanations, they mostly agree that for their study, but also in terms of lifelong learning as a whole, information literacy skills are needed for easier finding of relevant information and the correct use of information. Some students believe that, regardless of the study group undergraduate students should obtain an “elementary knowledge” about information literacy and its use in the academic environment for a more efficient completion of scholarly tasks.

Furthermore, some of the respondents stated that education of information literacy should not be introduced only at the Department of Information and Communication Sciences, but at the level of the whole Faculty.

According to one student, information literacy should become an obligatory course for all students at the undergraduate level, starting from the first semester, as it is “obvious that information science students are more competent regarding information literacy, due to Department courses that impose the use of repositories, databases and the completion of different tasks that require a selection of relevant information.”

Some students mentioned that colleagues from other study groups often refer to them and ask them for advice in searching for literature using library catalogues and different types of repositories.

As mentioned by one of the respondents, some of the students are not capable of forming correct queries to find relevant information on Google.

They also emphasise that in today’s digital environment it is essential to correctly use, seek, find and evaluate information, and that those skills will be of use not only in further education, but in life and professional career as well.

One student pointed out that information literacy should be taught on a practical basis, during an internship in “relevant companies”. This would possibly allow future employment at that company.

Students also mentioned that there are a couple of courses related to elementary skills in information literacy, but they assert the need for one course with the possibility of evaluating each students’ information competencies, which offers individual, expert tasks to those more proficient users.

As already shown in Table 1, 66.66% of the respondents were female, 94.4% were in the age category “21-25” and in the third year of study. Only 1 student was in the age category “18-20”.

All of the students study “Information Sciences” as single (10) or double major (8), e.g. Croatian language and literature (1), German language and literature (1), English language and literature (1), Philosophy (1), Japanology (2), Russian language and literature (1), Turkology (1). There was 1 student of the first study year, none from the second year and 17 of the respondents were students of the third year.

V. CONCLUSION

For the investigation and deeper analysis of information literacy, it is interesting to explore the students’ perspectives on the need to integrate information literacy into curricula. Exactly this was examined in this research, which was conducted in form of a survey regarding information literacy on a sample of 18 undergraduate students of the Department of Information and Communication Sciences at the Faculty of Humanities and Social Sciences, University of Zagreb. Students at the undergraduate level of study show that key sources to course-related information are Google, the library and colleagues, rarely teachers, and almost never databases and family members.

They evaluate their information competencies mostly high for using Google and the library, and mostly average when using Google Scholar and databases.

The students graded the accessibility of information sources/tools mostly average, with Google being graded the most accessible, followed by libraries and databases.

Out of the 18 students who responded to the survey, 17 answered “Yes” to the question if they thought there is a need to include professional education of information literacy or information competencies as part of one or more courses at the undergraduate level of study.

The main default of this research is the relatively small sample. Still, representativeness is not always guaranteed by sample size. Namely, in this research the research focus was on identifying information behaviour trends and investigating whether the students develop an overall research plan or search in relevant information sources, databases etc.

This paper has shown that in order to optimise information behaviour, according to students, introducing one or more information literacy courses is of importance for students of all levels. Further research would include sample enlargement and shifting the focus to graduate students.

REFERENCES

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