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CURRENT TRENDS IN STUDENTS' DATABASE USAGE: A CASE STUDY



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KEYWORDS: Database use. Gender and databases. Lecturers and databases. Library instruction. Student database use. Universities and databases.

ABSTRACT: Objective – The purpose of this study was to investigate current trends in electronic database use at Ariel University in Israel. The study started from the premise that students should use academic databases in order to accomplish academic tasks, since the Internet cannot supply all of their information needs. Variables such as language, gender, the discipline being studied, the effectiveness of library instruction, and the encouragement of lecturers were taken into account during the study. **Research methods** – The study was administered using a structured questionnaire that was completed by 637 students. **Results** – The majority of students chose to use the Internet, whereas only 28% used electronic databases. A few variables were found to be significant when using an academic database. English language knowledge, library instruction, teachers' encouragement, gender and faculty. Findings show that women use databases more frequently than men, and tend to request the assistance of the librarians more frequently. Difference was found between faculties. Students from social sciences prefer Hebrew databases, whereas those studying natural sciences prefer English databases. **Conclusions** – Several conclusions can be drawn from this study on how to improve database use: 1) library instruction must be improved, 2) lecturers should emphasize the importance of database searching, and 3) the study of English as a foreign language should be improved, because it has a direct impact on the information-seeking behavior of students. The innovations in this study are 1) the discovery of greater database use on the part of women than on the part of men and 2) the librarian's central role in the instruction and promotion of database use.

INTRODUCTION

In this age of information overload, in which vast amounts of information are easily available, students can choose from a wide range of sources when searching for information for academic purposes. When the Internet came into use at university libraries, it joined a collection of bibliographic and full-text electronic sources that had existed since the 1980s (Farber, 2002). These databases provide updated scientific content that has undergone peer review. Despite the headway that the Internet has made into academia including Google and Google Scholar, these databases are still important today, due to the fact that some of them are not available on the Web for free. Therefore, users who

refrain from using them are missing the use of high-quality material. University libraries invest large sums of money in purchasing access to these databases. Hence, academic institutions should encourage the use of these databases for research, and should discourage students from limiting their research to Web searches – particularly, from restricting themselves to the first few hits that appear in their Web search results.

The purpose of this study was to examine database usage among students at Ariel University. This university center, grants Bachelor's and Master's of Arts degrees in the humanities, social sciences, natural sciences, allied health sciences, engineering, and architecture. Enrollment is 11,000 students, of whom 8,700 are working toward a degree.

During the academic year of 1999-2000, we conducted a similar study. However, since then some changes have taken place in the institution: it has been accredited as a university, enrollment has increased and new academic departments have been opened. This updated study investigates how factors such as database type, frequency of use, gender, library instruction and the encouragement of lecturers affect database usage. The results reveal student database preferences and the challenges facing the university administration concerning the encouragement of usage of academic databases.

SURVEY OF THE LITERATURE

Ever since academic libraries have enabled widespread use of electronic information services (EIS), academic database usage has been widely researched. Studies show that since the 1990s there has been a significant rise in the use of electronic databases (Martell, 2008; Suseela, 2010; Du & Evanes, 2011; Tripanti & Jeevan, 2013; Karaiya & Khatarkar, 2014).

A comprehensive study on electronic database use conducted at Ariel University in 1999-2000 among 270 students showed that about 33% of the respondents did not use databases at all; 14.8% used them a few times a week; 20% used them once a week; and the rest used them less frequently. The study showed that 43% of students used the Internet, 17.7% used Aleph and only 5.9% used all of the databases available at the library. Students used databases when preparing for exams or writing papers, or for personal purposes, such as games and email (Shor 1999; Baruchson-Arbib & Shor 2002).

The results of a study conducted among students and faculty at Glasgow Caledonian University in March 2002 and October 2002-February 2003 showed an increase in the rate of EIS use over the relatively short time-period between the two surveys (Crawford & De Vicente & Clink, 2004). A study conducted at Tel Chai College in Israel examining information-seeking patterns among 512 Bachelor's students showed that the extent of use of information sources is low (Chai, 2006). Another study that looked at electronic database use among

200 third-year engineering, humanities, education, and social sciences students at the University of the West Indies found that over half of the respondents (108) did not use databases at all (Ramlogan & Tedd 2006).

David Beno's (2007) study that examined use rates of digital information among 721 respondents from Israel's five largest universities found that those who frequently used digital information sources also frequently used print information and vice versa. Moreover, 88% of the respondents preferred combining digital and print formats, and the majority (94%) of participants used the Internet at least a few times a week for a variety of purposes. Twenty eight percent of respondents reported high use of electronic publications, 40% reported high use of digital information, and 13% reported high use of electronic books.

THE EFFECT OF LIBRARY INSTRUCTION AND INSTRUCTORS' ENCOURAGEMENT

The extent of EIS use among the student and researcher communities in the universities and colleges depends on the following factors: 1) knowledge of computer use, 2) structured instructional sessions in the library on information retrieval from electronic databases, and 3) the extent to which students are referred to these databases by their instructors.

The impact of library instruction on database is an important issue concerning libraries contribution to information literacy. A study conducted at Ariel University found that students who have computer skills tend to use electronic database more frequently than those who received instruction on database use (Shor, 1999; Baruchson-Arbib & Shor, 2002). Another study found that students with prior Internet experience had positive perceptions of use of the digital library (Koochang, 2004). A study dealing with patterns of database use among students in the academic track of Jordan Valley College, Israel, found that an instructional course therein improved efficacy in search and use tools (Avigdori, 2000).

Madelaine Shanahan's (2008) study shows that information search patterns and information evaluation skills can be improved by a change in the information retrieval skills curriculum. That study tested the effect of instruction on electronic information skills among second-year radiography students at Australia's Royal Melbourne Institute of Technology in 2005. Prior to taking the course, 53% of the students used databases for assignments; immediately after taking the course, 93% did; and one year later, 100% did. The percentage of students who used more than one database grew from 39% to 96%. In addition, before taking the course, 62% of participants listed no more than one criterion that they used to evaluate information retrieved from the Internet. After having taken the course, 69% – and, one year later, 80% – listed three or more criteria that they used to evaluate information. The importance of instruction and the supportive environment needed during the process was studied in depth by Goldman (2012).

Students frequently use electronic databases when they are encouraged by their instructors to do so. A study conducted at Ariel University found that students, whose instructors encouraged them to use electronic databases, did so more frequently than students who did not receive encouragement. This finding was particularly significant for students in the natural sciences. In contrast, in the social sciences instructor encouragement did not affect the frequency of database use (Shor, 1999; Baruchson-Arbib & Shor, 2002).

These findings were supported by Ramlogan & Tedd's (2006) study, which found that the main element that encouraged students to use electronic databases was the recommendation of their instructors, followed by recommendations of friends and other students who had gained their skills through autodidactic trial and error. In contrast, it emerged that students who had not yet received guidance were not at all aware of the databases' existence.

The strong effect of instructors on students' database use was revealed throughout the course of a large-scale, five-year project (1999-2004) conducted by Britain's Joint Information Systems Committee (JISC), whose purpose was to learn about the information-seeking behavior of users in institutions of higher learning (Rowley & Urquhart, 2007; Urquhart & Rowley, 2007). The important role played by the instructors was particularly manifested at the level of simple and specific activities, such as recommending web sites or requiring use of periodicals for completing assignments.

GENDER AND COMPUTERS

A number of studies have examined the effect of gender on computer use. A study conducted at Sight and Sound, a post-secondary school in Tel Aviv, indicated that men present a more positive attitude towards computers and feel more confident and less anxious about their use than do women feel. In addition, men use the computer more frequently – in terms of iterations and length of sessions – than do women. Half of the men, compared to a third of the women, reported using the computer for over 10 hours per week. It was further found that men use the computer for both work and personal needs, in contrast to a third of the women (Doron, 2002).

A study conducted among 48 students at Frankfurt University found that men used computers more intensively for personal use than women. However, no difference was found between the genders in the number of hours of use for study purposes. The computer applications most commonly used for personal use were mail and searches. In addition, no differences were found between the genders in self-perceptions of skill (self-efficacy) in computer use (Imhof & Vollmeyer & Beierlein, 2007).

Differences in perception between genders regarding the use of digital libraries with the purpose of completing distance-learning assignments were found in a study

conducted among 154 students at five different campuses at a medium-sized university in the Midwest United States. It was found that men have significantly more positive perceptions regarding the use of digital libraries than women (Koohang, 2004).

FACULTY, DEPARTMENTS AND DATABASE USE

A number of studies have looked at the effect of electronic database use on the discipline being studied and researched. In a study that examined electronic database use among students at AUCOS during 1999-2000, no difference was found in the extent of electronic database use between social sciences students and natural sciences students. It was found that social sciences students who had previous knowledge of computers tended to use electronic databases more than those who had no previous knowledge. In contrast, no similar difference was found in the extent of electronic database use among natural sciences students. In addition, it was found that natural sciences students used electronic databases more when they received encouragement to do so from their instructors, in contrast to social sciences students (Shor, 1999; Baruchson-Arbib & Shor, 2002).

Another study, which examined electronic database use among 200 third-year engineering, humanities, education, and social sciences students at the University of the West Indies, found that most electronic database use took place on the part of social sciences students (Ramlogan & Tedd, 2006).

The difference in use patterns of electronic databases stems mainly from the nature of instruction in various disciplines. In Iris Chai's (2006) study, significant differences were found between patterns of information gathering by students in various departments. It was found that departmental requirements and complexity of assignments had a strong effect on the need for and use of information, depending on a student's study track, department, course, and even what year of studies they were in.

Applegate's (2006) study found differences in assignments between natural sciences and behavioral sciences, and found that the percentage of assignments requiring independent information search in the library in the natural sciences was lower than the percentage for the behavioral sciences.

The hypothesis of David Beno's 2007 study, which is that students and researchers in the natural sciences use digital information more than do their peers in the social sciences and the humanities, was not supported statistically. Only small differences were discovered between them. Frequency of database use among students and researchers in the natural sciences was 44%, in the social sciences 41.1%, in the humanities 39%, and in the exact sciences 34.2%.

A 1999-2004 study conducted for the JISC found differences between disciplines in use of electronic periodicals. The respondents were students of the following disciplines: pure and applied sciences, mathematics and engineering, social sciences, humanities and the arts, and clinical medicine. Significantly, higher use was found among students in the medical/clinical disciplines (Urquhart & Rowley, 2007).

RESEARCH QUESTIONS

The present study investigated the following questions pertaining to the academic use of databases by students.

1. Which kind of information services and databases do the respondents use – search engines, bibliographic databases, abstract databases, full-text databases?
2. What is the frequency of database use?
3. How many databases do the respondents use?
4. What kind of databases are most popular?
5. Is language a factor in database use?
6. Do the students undergo instruction in database use?
7. Does the librarian help them, or do they prefer to find information on their own?
8. Do students intend to continue using databases?
9. What is the influence of gender on database usage?
10. Is there a difference between students in social sciences and students in natural sciences regarding the number of databases that they use and the frequency of use?

METHODOLOGY

The study was administered using a structured questionnaire made up of 28 questions.

Questions 1-5 were socio-demographic questions regarding the respondent's age, country of birth, year of immigration (if not native), mother tongue, and gender.

Questions 6-7 measured the level of knowledge of Hebrew and English.

Questions 8-12 related to the respondent's education – i.e., discipline, year, degree sought, previous education, and whether or not s/he completed the matriculation exams.

Question 13 related to the extent of the respondent's mastery of computers.

Questions 14-28 related to electronic database use, asking respondents about their use of information technologies and electronic databases. Did the respondent undergo instruction – and if so, where? What information technology and electronic databases does s/he use, with what frequency, and for what purposes? In addition, respondents were asked whether or not their instructors refer them to electronic databases – and if so, in which courses? They were asked which databases they prefer (Hebrew or English), whether they need the librarian's assistance during their search, whether the databases available to them answer their needs, and whether they intend to expand their database use in the future for their study needs.

STUDY POPULATION AND DEMOGRAPHICS

637 students participated: 245 (38.5%) men and 366 (57.7%) women. 26 respondents (4.1%) did not specify their genders.

The respondents' ages ranged from 20 to 53. The average was 25.45 and the standard deviation was 352. Most (81.8%) were 27 and younger.

516 (81%) were natives of Israel, 75 (11.3%) were born in the former USSR, and 14 (2.2%) were born in Ethiopia. The rest were born in various other countries.

Number of years living in Israel ranged from 2 to 32, with the average at 16.46 and a standard deviation of 5.2.

98% were studying for their Bachelor's and 2% for their Master's (the percentage of graduate students of the total enrolled at Ariel University is 4%-5%).

35.9% were studying natural sciences, and 64.1% social sciences.

FINDINGS

The following chapter presents the findings regarding the research questions.

NUMBER OF USERS AND FREQUENCY OF USE

Four questions were asked regarding the use of databases by students. The first research question asked which kind of information services and databases the respondents use. Findings show that a high percentage of respondents (67.4%) use search engines, 28.8% use electronic databases, and 3.2% use both sources. Among those who use electronic databases, 31.6% use bibliographic databases, 32.3% use databases that contain abstracts, and 32.9% use full-text databases. Only a small number (6.6%) use three types of sources (see Table 1).

The second research question examined the frequency of use of these resources. Findings show that a third of the respondents use electronic databases at least once a week, and a third less frequently (less than once a month).

Table 1

Number of users of electronic databases

Database type	No. of users	% of respondents
Bibliographic databases	192	31.6
Abstract databases	196	32.3
Full-text databases	200	32.9
Bibliographic and abstract databases	80	13.2
Bibliographic and full-text databases	54	8.9

Database type	No. of users	% of respondents
Abstract and full-text	81	13.3
All three types	40	6.6

The third research question asked about the number of databases used by students. The study shows that about half use one to three databases, whereas 40% do not use any of the 32 databases listed.

The fourth research question examined the students' ability to identify popular databases accessible through the library. It emerges that the Index of Hebrew Periodicals, ProQuest, the Szold Institute, and the Oxford English Dictionary (OED) are those used by the highest percentage of respondents (36.7%, 24.9%, 11%, and 9.4% respectively). To the question, "What other electronic databases do you use?" 42 students responded. 47.6% stated that they use Google, 23.8% stated that they use Wikipedia, and 16.7% stated that they use PubMed (see Table 2).

Table 2

Breakdown of electronic database use

Database name	No. of users of the research sample	% of users of the research sample
ProQuest	151	24.9
WebSPIRS	52	8.6
PsycArticles	36	5.9
Haifa Index	162	36.7
Cochrane Library	14	2.3
Engineering Village 2	8	1.3
Web of Science	24	4.0
<i>Oxford English Dictionary</i>	57	9.4
Knovel Library	10	1.6
Safari Tech Books Online	10	1.6
Yif'at Hón Disk	11	1.8
Takdin legal database	9	1.5
Science Direct (Elsevier)	9	1.5
<i>Physical Review</i>	9	1.5
<i>Nature</i>	14	2.3
Royal Society of Chemistry	1	0.2
American Chemical Society	4	0.7

IEEE	11	1.8
<i>Proyekt haSHuT</i>	44	7.2
<i>HaRefuah: Israel Medical Association Journal</i>	11	1.8
<i>Historical Dictionary of the Hebrew Language</i>	18	3
<i>Encyclopaedia Judaica</i>	7	1.2
4Balance	3	0.5
Szold Institute Online	67	11
Szold Institute CD	8	1.3
PaD Or – legal rulings	14	2.3
PaDA Or – labor rulings	4	0.7
Bniyá [construction]: Israel Standards Institute	5	0.8
Sci-Finder chemical database	6	1
Predicta securities	1	0.2
Predicta trust funds	4	0.7
Others	46	7.6

FACTORS AFFECTING DATABASE USE

The fifth research question examined the effect that language and computer skills have on students' database use. Findings show that language was a main factor in database use by respondents. The majority of participants (91%) defined themselves as having very good mastery of Hebrew, only 27.3% defined themselves as having very good mastery of English, and a third defined themselves as having good mastery of English. The problem is that most of the data bases are in English and not in Hebrew that is why "Haifa Hebrew index" is most popular. Computer skills are another factor influencing the use of databases. The majority of respondents (78.5%) reported having sufficient computer skills.

The sixth and seventh question dealt with the issue of instruction. Instruction in information skills and in the use of databases is advisable in order to promote and support the use of databases. Findings show that about two-thirds of the students had not received any instruction. Of those students who did, 51% had participated in various courses in their departments, 22.9% had received instruction at the library, and 12.3% had received training at other institutions – i.e., as part of a job, while serving in the army, or in a course on bibliographies (Table 3). It emerges that instruction affects the number of databases that students use, but not the frequency of use (Tables 4 and 5).

Table 3

Where database instruction was undergone

Values	No. of respondents	% of respondents
School	34	13.8
University library	56	22.9
Courses	125	51
Other	30	12.3

Table 4

Differences between students who underwent instruction in electronic database use and those who did not, regarding number of databases used

Instruction / no. of databases	Average	Standard deviation	T value
Underwent instruction	1.98	1.66	6.98***
Did not undergo instruction	1.02	1.51	

*P < **P, 0.05 < ***P, 0.01 < 0.001

Table 5

Differences in frequency of electronic database use between students who underwent instruction and those who did not

Instruction / frequency of database use	Average	Standard deviation	T value
Underwent instruction	3.31	1.46	1.33
Did not undergo instruction	3.13	1.63	

*P < **P, 0.05 < ***P, 0.01 < 0.001

Instruction is the main factor guiding students in their use of databases. The study investigated the instruction given by both teachers and librarians. In Israel, teachers guide their students in database use at special courses or seminars. It emerges from this study that only half of the respondents are referred by their instructors to database use. Regarding the instruction given by librarians, findings show that about half of the students need assistance from the librarian and a third of the students manage on their own when searching electronic databases.

Another research question examined the students' intention to expand their database use in the future for the purposes of study. The majority of students reported their intention to expand such database use. Findings show a correlation between students having been instructed in database use by their instructors and their intentions of expanding their database use. The majority of students (79.5%) who had

been instructed by teachers reported having the intention of expanding their database use in the future, in contrast to 67.4% of students who had not been referred to databases.

Table 6
Correlation between instructor referral and intention of expanded future database use

Intention of expanded database use	Referred		Not referred		Chi square
	No. of respondents	% of respondents	No. of respondents	% of respondents	
Intend	182	79.5	124	67.4	8.12*
Do not intend	47	20.5	60	32.6	
Total	229	100	184	100	

*P < **P, 0.05 < ***P, 0.01 < 0.001

Gender was another factor influencing database use. Findings show two differences between men and women's database use. First, women use databases more frequently than men. Second, about half of the men used databases without asking for assistance from a librarian, in contrast to two-thirds of the women, who approached a librarian for assistance (Tables 7 and 8).

Table 7
Correlation between gender and incidence of database use

	Males ♂		Females ♀		Chi square
	No. of respondents	% of respondents	No. of respondents	% of respondents	
Frequent use	90	36.7	179	48.9	8.82**
Infrequent use	155	63.3	187	51.1	
Total	245	100	366	100	

*P < **P, 0.05 < ***P, 0.01 < 0.001

Table 8

Correlation between gender and tendency to ask for assistance while using databases

	Males ♂		Females ♀		Chi square <u>**13.58</u>
	No. of respondents	% of respondents	No. of respondents	% of respondents	
Need assistance	52	26.9	93	27.5	
Manage alone	101	50.8	122	36.1	
Need occasional assistance	46	23.1	123	36.4	
Total	199	100	338	100	

*P < **P, 0.05 < ***P, 0.01 < 0.001

DIFFERENCES BETWEEN FACULTIES

The last research question examined possible differences in database use between students from different disciplines. In terms of basic information skills, knowledge of languages, and computer skills, it emerges that no differences were found between students of natural sciences and students of social sciences. However, findings show that social sciences students use more databases, than natural sciences students (Table 9). It further emerges that there is a correlation between discipline and language preferences in database use. A higher percentage of students in the social sciences prefer Hebrew databases, than students in the natural sciences. Yet a higher percentage of natural sciences students prefer databases in both Hebrew and English (Table 10).

The findings show that the percentage of students in the social sciences who use databases frequently is higher than that of those in the natural sciences (Table 11). In addition, a correlation exists between a discipline and the tendency of the instructors to encourage students to use electronic databases. The percentage of instructors referring their students to electronic databases was higher in the social sciences department than was the percentage of those in the natural sciences department (Table 12).

Table 9

Differences between natural sciences students and social sciences students
in the number of databases used

Department / no. of databases	Average	Standard deviation	T value
Natural Sciences	0.81	1.34	-6.87***
Social Sciences	1.68	1.69	

*P < **P, 0.05 < ***P, 0.01 < 0.001

Table 10

Correlation between discipline and database language preference

	Natural Sciences		Social Sciences		Chi square
	No. of respondents	% of respondents	No. of respondents	% of respondents	
Hebrew	89	53.3	198	61.5	<u>6.43*</u>
English	9	5.4	6	1.9	
Both	69	41.3	118	36.6	
Total	167	100	322	100	

*P < **P, 0.05 < ***P, 0.01 < 0.001

Table 11

Correlation between discipline and frequency of database use

	Natural Sciences		Social Sciences		Chi square
	No. of respondents	% of respondents	No. of respondents	% of respondents	
Frequent	75	34.4	185	47.6	<u>9.82**</u>
Infrequent	143	65.6	204	52.4	
Total	218	100	389	100	

*P < **P, 0.05 < ***P, 0.01 < 0.001

Table 12

Correlation between discipline and instructors' tendencies to encourage electronic database use

	Natural Sciences		Social Sciences		Chi square
	No. of respondents	% of respondents	No. of respondents	% of respondents	
Encourage/Refer	56	37.8	165	61.6	<u>***22.53</u>
Do not encourage / refer	92	62.2	102	38.4	
Total	148	100	267	100	

*P < **P, 0.05 < ***P, 0.01 < 0.001

DISCUSSION

The present study examined several issues connected to database use of students. Findings show that a high rate of students (67.4%) use Internet search engines, about a quarter of the respondents use electronic databases, and only a quarter use both resources. The relative paucity of use of databases is understandable in light of the ease of use of Web searches and the lack of awareness of the importance of databases. The percentage of Internet use has grown since the last study was conducted (Baruchson-Arbib & Shor 2002), wherein only 32.5% of the respondents used the Internet. At the same time, the percentage of database users has grown, and the percentage of users of both has nearly doubled.

The tendency of increase in the use of EIS was found in a study conducted among students and faculty at Glasgow Caledonian University, which shows a rise in the rate of use in a relatively short time period between two surveys – the first of which was conducted in March 2002 and the second in October 2002-February 2003 (Crawford & De Vicente & Clink, 2004).

Apparently, increase in EIS use can be attributed to the fact that most of the students claimed computer proficiency. This is in contrast to our previous study, wherein only half of the students claimed computer proficiency, and there was relatively little instruction in libraries, schools and courses. It is clear that instructional courses contribute to improvement in search efficiency and increased use of digital information sources (Avigdori, 2000; Chai, 2006; Urquhart & Rowley, 2007; Shanahan, 2008).

Findings in the study show that the instructor plays a central role in influencing students' use of databases. This finding is similar to that from several studies (Baruchson-Arbib & Shor, 2002; Ramlogan & Tedd, 2006; Shor, 1999), which revealed

that students who were encouraged by instructors used databases more frequently, than did their peers who did not receive any encouragement. The strongest effect was among students of the natural sciences. (Baruchson-Arbib & Shor, 2002). In addition, the central role of the instructor in exposing students to database use was particularly manifested in the level of simple and specific actions such as recommending sites or a resolute demand that students use periodicals as sources for carrying out assignments (Rowley & Urquhart, 2007; Urquhart & Rowley, 2007). Several factors influence the use of databases. In this study, language was revealed as a significant factor for respondents. It emerges that the main and most accessible databases are those in Hebrew such as the Haifa Index and the Szold Institute. In addition, the *Oxford Dictionary* is important to Israeli students whose mother tongue is not English. This finding concurs with Iris Chai's (2006) .

It is evident that the significance of the information databases is not clear enough to students, as they prefer to use sources that are more familiar and accessible to them. More practice, more instruction at the library, and encouragement on the part of instructors is desirable in order to encourage extensive usage of EIS. In light of the fact that only half of the respondents are referred by instructors to use databases, it is worthwhile exposing the instructors to EIS courses given by librarians.

An important finding in this study concerns the variable of gender. Findings show that women use databases more frequently than do men, and they also request the librarian's assistance more frequently. This finding contradicts Koohang's (2004) study that examined the effect of gender on computer use and found that men have a more positive perception of digital libraries for remote learning purposes than do women. In addition, Doron (2002) found that men like computers more, feel more confident in their use, have less anxiety toward them, and use them more frequently and for longer periods than do women. It is clear that during the ten years since Doron's study women have become much more familiar with computers.

Another factor was the difference between disciplines. Findings show that there is more openness to the use of English in the natural sciences. This is clear when we look at the quantity of study material in the natural sciences published in English. Furthermore, the study revealed that instructors in the social sciences encourage database use more than their colleagues. Last, the role of the librarian is prominent in this study. Findings show that even in the age when most databases are easy to use, approximately half of the students using them are assisted by the librarian. A similar finding appears in Chai's (2006) study that examined the role of the librarian in correlation to students' grades.

It is clear from our findings that, in order to enhance the use of reliable academic databases, academic institutions must encourage English study and initiate collaboration between librarians and instructors in creating a special curriculum for EIS training.

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APPENDIX:

Questionnaire

Before you is a questionnaire designed to examine patterns of electronic database use among Ariel University students. Please mark the answer that best reflects your electronic database use pattern. Note that in some questions, you may mark more than one answer. The first questions are related to demographics and will be used for statistical purposes only.

1. Year of birth _____
2. Country of origin _____
3. Year of immigration _____
4. Mother tongue _____
5. Gender: Male / Female
6. Knowledge of languages: Hebrew
 - a. Very good
 - b. Good
 - c. Medium
 - d. Fair
 - e. Poor
7. Knowledge of languages: English
 - a. Very good
 - b. Good
 - c. Medium
 - d. Fair
 - e. Poor
8. Discipline studied:
 - a. Life sciences
 - b. Social sciences
9. Degree sought: Bachelor's / Master's
10. Year of studies
 - a. First
 - b. Second
 - c. Third
 - d. Fourth

-
11. Previous education:
 - a. Secondary
 - b. Vocational
 - c. Courses
 - d. Other
 12. Full matriculation: Yes / No
 13. How would you assess your mastery of computer use?
 - a. Very good
 - b. Good
 - c. Medium
 - d. Low
 - e. Very low
 14. Have you undergone instruction in electronic database use? Yes / No
 15. If so, where (you may mark more than one answer)?
 - a. School
 - b. Library
 - c. Courses
 - d. Other. Describe _____
 16. What information systems do you use (you may mark more than one answer)?
 - a. Aleph
 - b. Electronic databases
 - c. Web search engines
 17. What electronic databases do you use (you may mark more than one answer)?
 1. ProQuest
 2. WebSPIRS
 3. PsycArticles
 4. Haifa Index
 5. Cochrane Library
 6. Engineering Village 2
 7. Web of Science
 8. *Oxford English Dictionary*
 9. Knovel Library
 10. Safari Tech Books Online
 11. Yif'at Hón Disk
 12. Takdín Law Database
 13. Science Direct: (Elsevier(
 14. *Physical Review*
 15. *Nature*
 16. Royal Society of Chemistry

17. American Chemical Society
 18. IEEE
 19. Proyéè haShutfut
 20. *HaRefuá* Israel Journal of Medicine
 21. *Historical Dictionary of the Hebrew Language*
 22. *Encyclopaedia Judaica*
 23. 4Balance
 24. Szold Institute Online
 25. Szold Institute CD
 26. Pad-Or legal rulings
 27. Pad-Or labor rulings
 28. Bniyá [construction] of the Israel Standards Institute
 29. Sci-Finder chemistry database
 30. Predicta securities system
 31. Predicta trust funds
 32. Other
18. What types of electronic databases do you use (you may mark more than one answer)?
- a. Bibliographic
 - b. Those that contain abstracts
 - c. Full-text format
19. With what frequency would you say you use electronic databases?
- a. A few times a week
 - b. Once a week
 - c. Once every two weeks
 - d. Once a month
 - e. Less than once a month
20. For what purpose(s) do you use electronic databases?
- a. Study purposes
 1. Searching for material to write a paper on a defined topic
 2. Searching for a topic for a paper
 - b. Personal use
 1. Expanding personal knowledge
 2. Other (please give details) _____
21. Have you been referred to electronic database use by instructors? Yes / No
22. If so, for what courses? _____
-
23. Which electronic databases do you prefer using: Hebrew or English?
- a. Both
 - b. Hebrew
 - c. English

-
24. To the extent that you've found the material that you've found in electronic databases relevant to you, do you (you may mark more than one answer):
 - a. Print it out
 - b. Save it onto a disk
 - c. Mail it to myself
 25. During searches in electronic databases, you:
 - a. Need the librarian's assistance
 - b. Make do on my own
 - c. Occasionally ask the librarian's assistance
 26. Do you intend to expand your electronic database use for your study needs? Yes / No
 27. Do existing electronic database collections answer your needs? Yes / No
 28. Do you feel you are in need of more databases? Yes / No
 29. If so, which ones? _____

Thanks for your cooperation.

Artykuł w wersji poprawionej wpłynął do Redakcji 18 czerwca 2014 r.

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BIEŻĄCE TRENDY W WYKORZYSTYWANIU BAZ DANYCH PRZEZ STUDENTÓW. STUDIUM PRZYPADKU

SŁOWA KLUCZOWE: Wykorzystanie baz danych. Płeć a bazy danych. Wykładowcy a bazy danych. Przystosowanie biblioteczne. Wykorzystanie baz danych przez studentów. Uniwersytety a bazy danych.

ABSTRAKT: Teza/cel artykułu – Celem niniejszego artykułu było zbadanie bieżących trendów w wykorzystaniu elektronicznych baz danych przez studentów Uniwersytetu w Ariel (Izrael). Jako punkt wyjścia przyjęto założenie, że studenci powinni wykorzystywać akademickie bazy danych w celu realizacji zadań otrzymywanych podczas zajęć, ponieważ Internet nie może zaspokoić wszystkich potrzeb informacyjnych. Pod uwagę wzięto zmienne takie jak język, płeć, kierunek studiów, skuteczność przystosowania bibliotecznego i zachętę ze strony wykładowców. **Metody badań** – Badanie przeprowadzono przy zastosowaniu ustrukturyzowanego kwestionariusza wypełnionego przez 637 studentów. Większość studentów wybrała Internet, jedynie 28% respondentów preferowało elektroniczne bazy danych. Przy wykorzystywaniu akademickich baz danych zaobserwowano kilka istotnych zmiennych, mianowicie znajomość języka angielskiego, odbyte przystosowanie biblioteczne, zachętę ze strony wykładowców, płeć oraz wydział uniwersytetu. Badania wskazują, że kobiety wykorzystują baz danych częściej niż mężczyźni, a także częściej sięgają w tej kwestii po pomoc ze strony pracowników biblioteki. Odnotowano również różnice pomiędzy wydziałami. Studenci nauk społecznych preferują bazy danych w języku hebrajskim, zaś studenci nauk przyrodniczych wybierają bazy anglojęzyczne. **Wnioski** – Dzięki przeprowadzeniu badania wyciągnięto szereg wniosków wskazujących na możliwości poprawy wykorzystania baz danych: 1) należy dopracować przystosowanie biblioteczne, 2) wykładowcy powinni kłaść większy nacisk na wagę poszukiwań w bazach danych, 3) należy poprawić u studentów zakres znajomości języka angielskiego, ponieważ wpływa ona bezpośrednio na zachowania związane z poszukiwaniem informacji. Odkryto, że: 1) częstszymi użytkownikami baz danych są kobiety, a nie mężczyźni, 2) pracownicy bibliotek pełnią centralną rolę w prowadzeniu szkoleń użytkowników bibliotek i promowaniu baz danych.