

Use of Electronic Resources by Postgraduate Students of the Department of Library and Information Science of Delta State University, Abraka, Nigeria

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Introduction

Background to the Study

Information professionals have long sought to comprehend what factors are relevant in encouraging a person to seek out information. More recently, a particular focus of inquiry has been on those factors that play a role in deciding to use the library's electronic resources to seek information as opposed to just surfing the Internet. These inquiries assume an even greater importance in light of the fact that more people are using the Internet to find information they need, information that is unmediated by the library (Kibirge, 2000).

Informed library users know that libraries have resources that are more comprehensive and scholarly than most Web sites provide. Libraries provide access to scholarly literature that, as a rule, is not freely available on the Web. Often, it is in college that users become aware of libraries' resources, usually while having to write research papers. Assuming that on average most students face the same number and type of papers and assignments during their college career, it is critical to understand what makes one student use the library's electronic resources while another will not think of the library as a place to find specialized resources for their papers.

One obstacle to the use of a library's resources, and in particular its electronic resources, is that they are not seen as being straightforward. In contrast to an Internet search engine, where a single keyword search will usually result in thousands of hits, no matter what the topic, in the library, students have to choose a particular database and be more selective in the search words they use. Moreover, database subjects often overlap, with differences in dates, journal and subjects covered, and whether the material is full-text or not. In addition, the library may have a print subscription to a certain title that is not full-text electronically, or the title may be accessible full-text through another database than the one originally searched. Therefore, not only do students have to find the relevant citations, but they also have to know how to locate the article after that. This means juggling many screens, many technologies, multi-tasking electronic jobs, and of course, knowing where to look for all this necessary information. Lastly, there is the additional confusion that more and more library databases use Web-based technologies. Because the interface is seamless there does not seem to be a visible, on the screen, difference between Web-based library resources and general Web-based resources. All of the above also assumes the student is proficient in the use of computers. It is quite clear that searching for information has become "inexorably linked to computer technology." (Jacobson, 1991).

Understanding how students navigate this maze of resources is important in helping us to develop and assess pedagogy designed to instruct our students in library usage. Students are more and more Web-savvy (Kibirge, 2000), many of them having been brought up around computers and the Internet. However, they matriculate with a diversity of computer and Web-searching skills and experience. Students may not have been exposed to library resources, or not be aware of which resources a library might have, or how to make use of them. It is therefore of interest to us to try and understand what characteristics will make one student branch out and explore library resources, while another one might not.

A study of undergraduates showed that they looked for the fastest way that would lead to satisfactory results when doing research, going for electronic information sources first (Valentine, 1993). These students felt uncomfortable, however, asking for help in using the library and spent frustrating hours trying to find information. Currently, with the explosion of full-text resources, it would seem even easier for the student to find a full-text database and select the articles, regardless of whether they would have been the most appropriate for their research. Not all students take this route, however.

Statement of the Problem

Supporting research and learning activities becomes a major mission for academic libraries. In recent years, academic libraries face pressures like diminished budgets, increased patron demands, and rising costs for book purchases and periodical subscriptions (Ke & Chang, 1999). The thriving growth of electronic publications is reshaping the nature of collections and the mode of delivering and accessing information in libraries. The traditional print resources nowadays face challenges from their electronic counterparts in faster and timely delivery of information as well as in improved access (Bandyopadhyay and Chu, 1999). Among various resources for learning, staff and students throughout much of the world can retrieve seemingly endless volumes of information from all over the globe in a short span of time. It appears that the rate of production of electronic materials has exceeded that of print-based publications (Dalgeish & Hall, 2000). In this study we will examine some factors that correlate with students' usage of electronic resources. The following research questions were asked to guide the study:

1. What is the level of ICT skill of postgraduate students of the Department of Library and Information Science, Delta State University , Abraka?
2. How does a postgraduate student of the Department of Library and Information Science, Delta State University , Abraka access electronic resources?
3. In what medium are electronic resources used by postgraduate students of the Department of Library and Information Science, Delta State University , Abraka?
4. What is the level of electronic resource experience of postgraduate students of the Department of Library and Information Science, Delta State University , Abraka?
5. What is the Level of electronic resource Usage by postgraduate students of the Department of Library and Information Science, Delta State University , Abraka?
6. Does gender affect the use of electronic resources by postgraduate students of the Department of Library and Information Science, Delta State University , Abraka?
7. What are the problems encountered by postgraduate students of the Department of Library and Information Science, Delta State University, Abraka?

Significance of the Study

The value of the study relates to the understanding of the usage of electronic resources by post graduate students of the Department of Library and Information Science, Delta State University , Abraka. This study will amongst others, attempt to identify which of the variables presented play a significant role in the students' use of electronic resources. It will also x-ray the problems associated with the use of electronic resources and as such the result of the findings of this study will contribute to the body of knowledge on student's use of electronic resources. And will also be beneficial to academics, researchers, students and professional interested in this area of study. Generally, if one can say that the

use of electronic resources for sourcing information by students of higher institution is a must then this study is imperative.

Scope of the Study

The study focuses on the use of electronic resources by post graduate students of the Department of Library and Information Science, Delta State University , Abraka. From the universities, polytechnics, and other higher institutions found in the states only Delta State University, Abraka, have a Library School. Consequently, this study will be carried out within the Department of Library and Information Science, Delta State University , Abraka and the respondents of interest to the study will be postgraduate MSc and PhD students of the Department.

Limitations of the Study

Due to the wide spread this study is restricted to only one out of several Library Schools in Nigeria as a case study. Therefore, the extent to which the findings of this study meet the need of all others is the limitation on this study.

Literature Review

Electronic Information Skills and Experience

In order to utilize the growing range of electronic resources, students must acquire and practice the skills necessary to exploit them. "For students using a variety of on-line databases, it is as though they were parking lot attendants, where every vehicle is not only a different make and model but has a different configuration" (Blandy & Libutti, 1995). As Dutton (1990) suggests, the skills required to maximize the potential of electronic resources are much greater than those required for searching printed sources. These skills include a knowledge of the structure of the database and the instructions which must be input into the computer by the searcher, as well as an understanding of the ways in which the instructions are linked with one another. To this end, Brophy (1993) states users do not often appreciate the skills required to search these sources, stating they are deceptively easy to use. The ability to find and retrieve information effectively is a transferable skill useful for future life as well as enabling the positive and successful use of the electronic resources whilst at university. As Brophy argues, libraries must "reach a position where the acquisition of information skills is acknowledged as one of the key learning objectives for every student entering a university, so that no student leaves without being fully equipped to cope with the information intensive world - the information society - as an end-user" (Brophy, 1993: 55)

There are several ways in which web experience can be defined and conceptualized. In general, web experience can be considered to be an act where users engage in applications that are often centered on web. In addition, web experience also can be defined in two different ways as perceived use and variety of use. "While perceived usage refers to the amount of time spent interacting with the web and the frequency of use, variety of use refers to the importance of use and the collection of web package/program use." (Igabaria, Guimares & Davis, 1995). Essentially, the web would often be a tool for wider and more diverse use. Users are increasingly using the web for information retrieval, communicating etc. via electronic mail or online conferencing. In this study, the web experience refers to the experience of web usage, such as the experience of web/online packages, and the Internet.

Gender Attitudes toward Technologies and Technical Competencies

The gender dynamics relating attitudes about the Internet and actual utilization of the medium have not been adequately studied to date (Busselle, R., J. Reagan, B. Pinkleton, and K. Jackson, 1999.). Nevertheless, research regarding computer use more generally has highlighted the significance of

interest and stereotyping about computers, as well as self-perception of ability (self efficacy) in explaining gendered patterns of behaviour vis-à-vis this technology (Campbell, 1990; Levin and Gordon, 1989; Reinen and Plomp, 1997; Shashaani, 1993). Investigations with elementary and high school students as well as adults reveal a significant gulf between male and female interest in computers (Campbell, 1990; Levin and Gordon, 1989; Reinen and Plomp, 1997; Shashaani, 1993). For example, drawing on representative national samples of elementary, lower, and upper secondary school students from 20 countries in 1989 and 10 countries in 1992, Reinen and Plomp, (1997) find that females enjoy using the computer less than do male students. In addition, research has found that men and boys have significantly more positive attitudes toward computers and more stereotyped attitudes regarding who is capable of using them (Levin and Gordon, 1989; Whitley, 1997), while female students' attitudes and attributions toward computers discourage them from using the technology (Campbell, 1990). The inference drawn is that gendered attitudes are central to discrepancies in use. Beyond attitudes, the literature points to another important factor that influences technology use: self-efficacy. Coined and initially elaborated by Bandura (1977), self-efficacy beliefs revolve around "one's capability to organize and execute the courses of action required to manage prospective situations" and includes both anxiety and enactive and vicarious experience regarding task-specific competencies. Computer-related self efficacy has been an important extension of this concept. In a wide variety of research settings, men have been found to exhibit higher self-efficacy scores (Corston and Colman, 1996; Durndell, A., Z. Haag, D. Asenova, and H. Laithwaite. 2000; Miura, 1987; Torkzadeh and Van Dyke, 2002; Whitley, 1997). Women, on the other hand, generally display less confidence and more discomfort (Brosnan, 1998; Dickhauser and Stiensmeier-Pelster, 2002; Schumacher and Morahan-Martin, 2000; Shashaani, 1993).

Recent literature on technology presents a complicated picture of the relationship between gender and Web use. While most scholars agree that the gender gap in Internet use has narrowed significantly in the college age group (Goodson, McCormick, & Evans, 2001; Odell, Korgen, Schumacher, & Delucchi, 2000) as well as the general population (Brenner, 1997; Jackson, Ervin, Gardner, & Schmitt, 2001; Newburger, 1999; Ono & Zovodny, 2003), some gender differences have been found in attitudes toward technology, intensity of Internet use, online applications preferred, and experience in cyberspace. Investigations of college student Web use have proven especially insightful, as research on this group allows for an examination of gender differences within an institution in which men and women generally have equal access to the Internet (Odell et al., 2000). The scholarship on gender and Web use is contradictory at times, demonstrating the dynamic nature of the interaction, as well as the need for continued investigation. In a study of college students' attitudes toward technology, Smith and Necessary (1996) found that males had significantly more positive attitudes toward computers than females did. Jackson et al. (2001) also found that females in general reported less favourable computer attitudes. Other literature, however, contradicts these findings. Several investigations have reported that gender had no significant effect on any of the dimensions of computer attitude studied (Jennings & Onwuegbuzie, 2001; Shaw & Gant, 2002). Zhang, (2002) observed that female college students possess more positive attitudes than their male peers. The inconsistency in these findings might be attributed to differences in methodology, or might reveal how the increasing number of female Internet users is altering women's attitudes regarding computers and the Web. It is noteworthy that the studies are separated by nearly half a decade. Within that time, with greater adoption of technology by women, the differences observed in the earlier studies could disappear in the latter studies. Bimber (2000) argued that the gender gap in the Internet is larger where more intensive Web use is concerned. Women are substantially less likely to be frequent users, equally likely to be infrequent users, and more likely to be intermediate users. In short, females are less intensive Internet users than males. Bimber attributes this finding to a combination of gendered technology embodying male values, content that favours men, sex differences in cognition and/or communication, and socioeconomic differences. Ono and Zovodny (2003) also found women to be less frequent and less intense users of the Internet. Concern about gender inequality has now shifted from access to intensity.

The most pronounced gender difference in Web use is found in the online applications used by males and female. Male college students are more likely than their female counterparts to use the Internet for recreational purposes (e.g., playing games online, visiting adult-only sites, gambling, accessing news groups and discussion forums, staying abreast of news developments, and seeking

information for personal use), while females are more likely to use the Internet to talk to family and friends (Goodson, McCormick, & Evans, 2001; Jackson et al., 2001; Morahan-Martin & Schumacher, 1997; Odell, Korgen, Schumacher, & Delucchi, 2000; Scealy, Phillips, & Stevenson, 2002). These findings appear to reinforce the widespread assumption that men prefer to use the Web for information gathering and entertainment and women prefer to use the Internet for communication (Shaw & Gant, 2002).

Methodology

Research Design

The descriptive survey method was adopted for this study because it seeks to explore the Use of Electronic Resources by Postgraduate Students of the Department of Library and Information Science, Delta State University, Abraka, Nigeria. The data collected are the situation of information about the views of postgraduate student of Library School in universities within Delta state.

Population for the Study

The estimated population for this study is 78 respondents drawn from among Masters and PhD students of the Department of Library and Information Science, Delta State University, Abraka. The breakdown of the student population is as illustrated in table 1 below.

Table 1: Showing the Population Breakdown for the Study

Level of Study	Population	Percentage Population
PhD	13	17%
MSc	65	83%
Total	78	100%

Sample and Sampling Technique

Due to the small number of respondents involved the entire population was used as the sample for the study.

Research Instrument

The questionnaire titled Use of Electronic Resources by Postgraduate Students of Library School Questionnaire (UERPSLSQ) was used as the research instrument for this study. The questionnaire provides data on Use of Electronic Resources by Postgraduate Students of Library School in Delta State, Nigeria. And it is aimed at answering questions on: the level of ICT skill; the level of electronic resource experience and the Level of electronic resource Usage by postgraduate students of Delta State Library School. Moreso to ascertain if gender affects the use of electronic resources and the problems encountered in using electronic resources by postgraduate students of Delta State Library School.

Method of Data Collection

The questionnaire was sent out to the Department of Library and Information Science, Delta State University, Abraka. The researcher employed the service of research assistants to administer the questionnaire one-on-one to the students and their response collected immediately. This method was preferred so as to achieve a high response rate.

Method of Data Analysis

Data collected from the questionnaires were analyzed using frequency counts and simple percentage.

Findings and Discussion

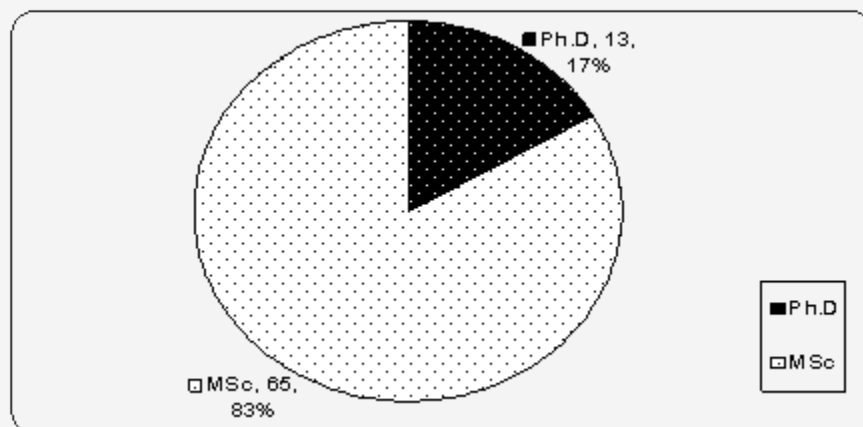
A total of 78 questionnaires were distributed to respondents and were successfully retrieved giving a 100% rate of return. The analyses of the distribution were as presented in figure 1 below.

Figure 1: Pie Chart Showing Gender Distributions of the Respondents



From figure 1 above a majority of 47 (60%) respondents were females. This is in agreement with Adomi (2000) that there are more females than males in Library Schools in Nigeria .

Figure 2: Pie Chart Showing Distributions of the Respondents



From figure 2 above a majority of 65 (83%) respondents were Masters Degree students.

Figure 3: Pie Chart Showing Age Distribution of the Respondents

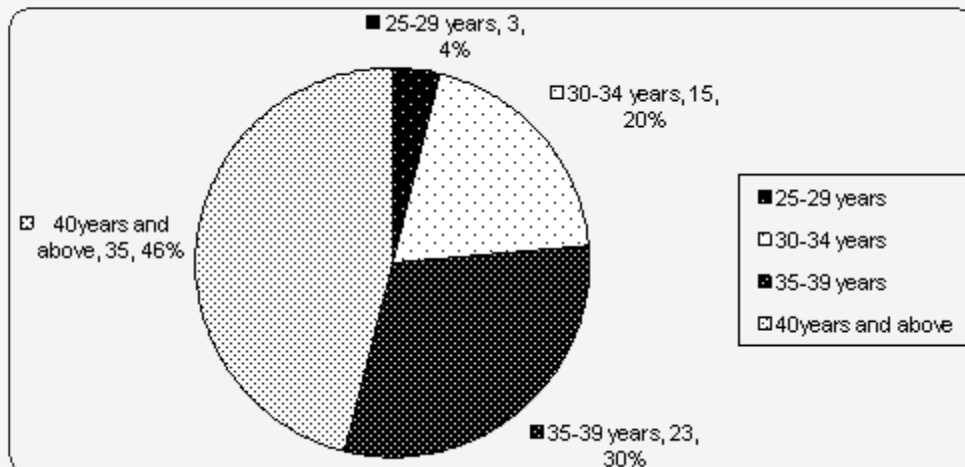


Figure 3 above shows that most of the respondents were between 40 years and above.

Research Findings

Research Question 1: *What is the level of ICT skill of postgraduate students of the Department of Library and Information Science, Delta State University, Abraka?*

The results of the analysis is presented in table 2

Table 2: Showing Level of ICT skills of postgraduate students of Delta State Library School ?

S/N	Items	Options	Frequency	Percentage
1.	I am skilled in the use of computer.	Agree	45	57.69%
		Disagree	33	42.31%
2.	I am skilled in the knowledge of database structures	Agree	10	12.82%
		Disagreed	68	87.18%
3.	I am skilled in working in an interactive platforms e.g. video conferencing, BBS, LISTSERV, Chat room etc.	Agree	18	23.08%
		Disagreed	60	76.92%
4	I am skilled in formulating search queries	Agree	32	41.03%
		Disagreed	46	58.97%
5	I am skilled in online navigation techniques	Agree	49	62.82%
		Disagreed	29	37.18%
6	I am skilled in the use of electronic library tools e.g. CDROM, OPAC, Subject Gateways etc.	Agree	25	32.05%
		Disagreed	53	67.95%
7	I am skilled in online acquisition procedures/techniques	Agree	15	19.23%
		Disagreed	63	80.77%
8	I am skilled in working in a network environment	Agree	18	23.08%
		Disagreed	60	76.92%
9	I am skilled in using internet telephony	Agree	5	6.41%

		Disagreed	73	93.59%
10	I am skilled with computer system/application software e.g. MS Windows XP, Linux, MS Office, etc.	Agree	58	74.36%
		Disagreed	20	25.64%
11	I am conversant with electronic formats e.g. PDF, JPEG, MPEG etc.	Agree	25	32.05%
		Disagreed	53	67.95%

From table 2, it was observed that there is a low level of skillfulness in the use of ICT among respondents. Dutton (1990) suggested that the skills required to maximize the potential of electronic resources are much greater than those required for searching printed sources. These skills include a knowledge of the structure of the database and the instructions which must be input into the computer by the searcher, as well as an understanding of the ways in which the instructions are linked with one another. To this end, Brophy (1993) posited that students do not often appreciate the skills required to search electronic sources, stating that they are deceptively easy to use. Brophy argues that, it has reached a situation where the acquisition of information skills is acknowledged as one of the key learning objectives for every student entering a university, so that no student leaves without being fully equipped to cope with the information intensive world as an end-user (Brophy, 1993: 55).

Research Question 2: *How does a postgraduate student of the Department of Library and Information Science, Delta State University, Abraka access electronic resources?*

The results of the analysis are presented in figure 4.

Figure 4: Showing Access of Electronic Resources by Postgraduate Students of Delta State Library School

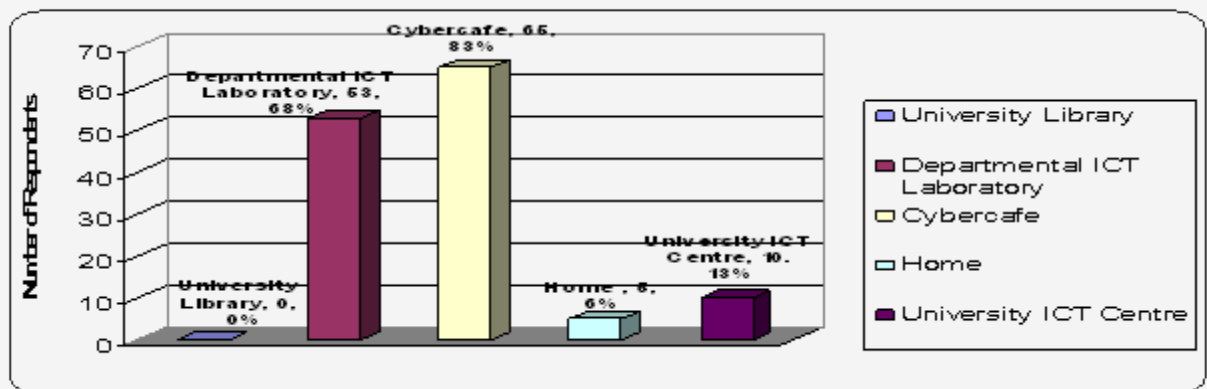


Figure 4 above indicates that majority of the respondent access electronic resources from the cybercafé . This corroborates Obuh, (2007) that cybercafés are the most readily available access to the electronic resources by users.

Research Question 3: *In what medium are electronic resources used by postgraduate students of the Department of Library and Information Science, Delta State University, Abraka?*

The results of the analysis are presented in figure 5.

Figure 5: Showing Analysis of Medium of Electronic Resources Used by Postgraduate Students of Delta State Library School

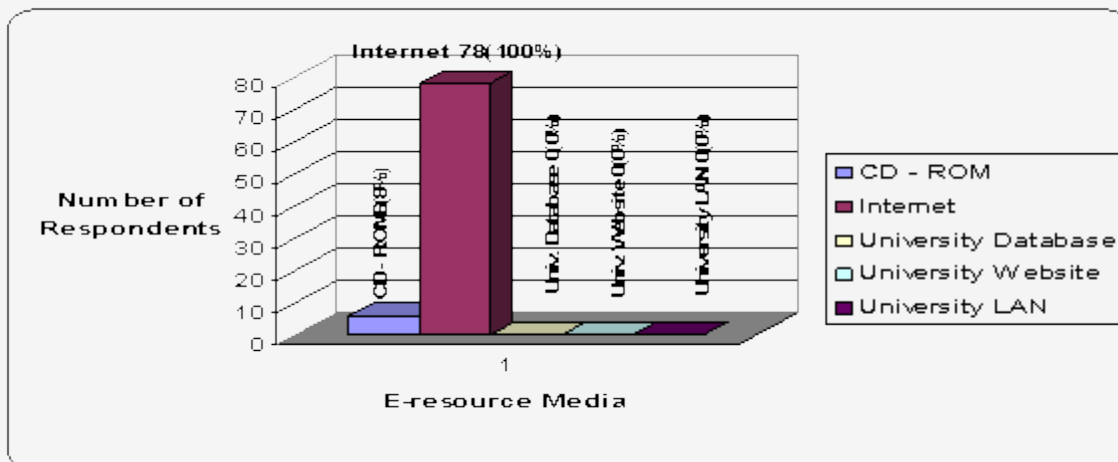


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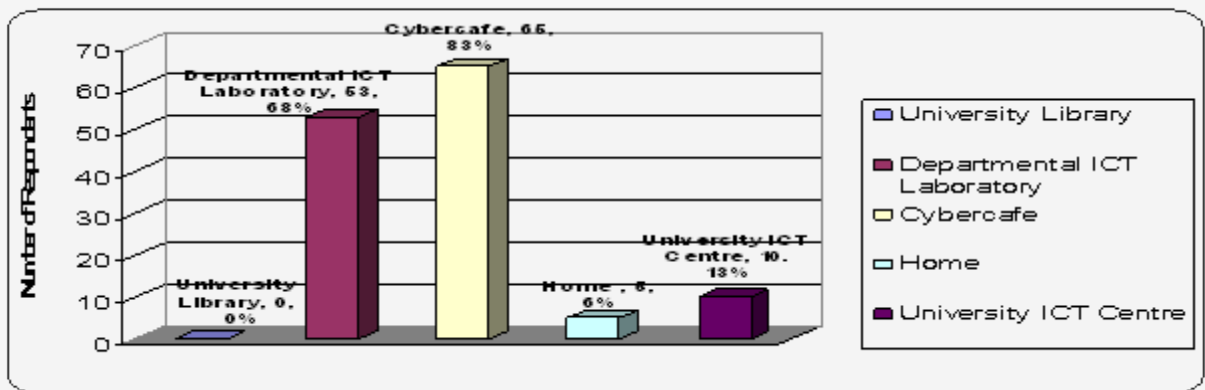


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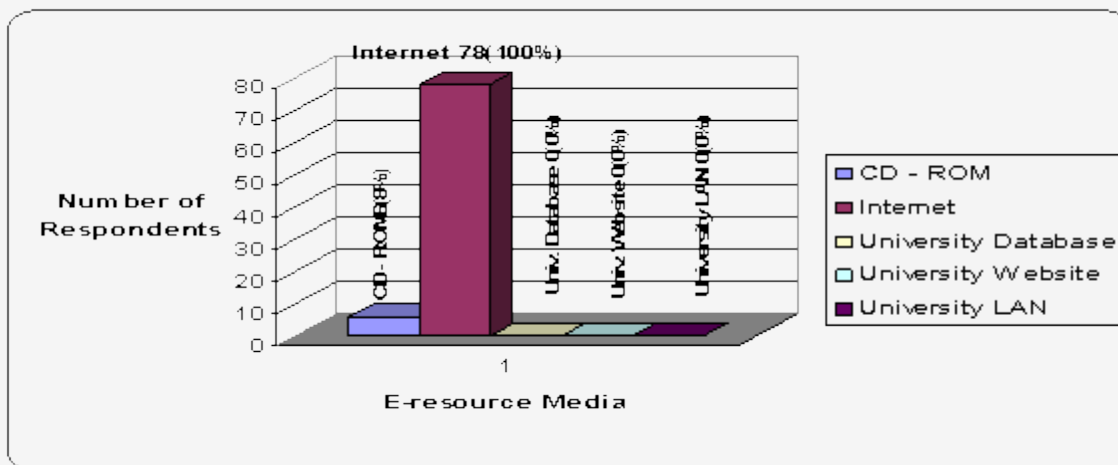


Figure 5 above indicates that the internet is the most used medium used in sourcing electronic materials. This supports Kibirge, (2000) that more people are using the Internet to find information they need, information that is unmediated by the library.

Research Question 4: *What is the level of web experience of postgraduate students of the Department of Library and Information Science, Delta State University , Abraka?*

The results of the analysis are presented in table 3.

Table 3: Showing Level of electronic resources experience of postgraduate students of Delta State Library School

S/N	Items	Options	Frequency	Percentage
1.	Experience with the Internet.	Agree	69	88.46%
		Disagreed	9	11.54%
2.	Experience with search engines e.g. Google, Altavista, yahoo etc.	Agree	35	44.87%
		Disagreed	43	55.13%
3.	Experience with CD - ROM	Agree	10	12.82%
		Disagreed	68	87.18%
4	Experience with topic maps	Agree	31	39.74%
		Disagreed	47	60.26%
5	Experience with site maps	Agree	38	48.72%
		Disagreed	40	51.28%
6	Experience with website inbuilt search engines	Agree	38	48.72%
		Disagreed	40	51.28%
7	Experience with online databases	Agree	31	39.74%
		Disagreed	47	60.26%
8	Experience with ready made questions (FAQs)	Agree	33	42.31%
		Disagreed	45	57.69%
9	Experience with navigating web links	Agree	45	57.69%
		Disagreed	33	42.31%%

10	Experience with mailing list	Agree	35	44.87%
		Disagreed	43	55.13%
11	Experience with site help	Agree	27	34.62%
		Disagreed	51	65.38%
12	Experience with weblog	Agree	0	- -%
		Disagreed	324	100.00%

From table 3, it was observed that there is a low level of electronic resource experience amongst respondents. This corroborates Dutton (1990) and Brophy (1993) that students do not often appreciate the skills required to search electronic sources, stating that they are deceptively easy to use.

Research Question 5 : *What is the level of electronic resource Usage by postgraduate students of the Department of Library and Information Science, Delta State University , Abraka?*

The result of the analysis is presented in table 4.

Table 4 Level of electronic resource Usage by postgraduate students of Delta State Library School

S/N	Items	Options	Frequency	Percentage
1.	Do you use electronic resources	Yes	78	100.00%
		No	0	- -
2.	How often do you use electronic resources	Very Often	13	16.67%
		Often	57	73.08%
		Rarely	8	10.26%
		Never	0	- -
3.	For how long have you been using electronic resources	Below 1 year	23	29.47%
		1 - 2 years	27	34.63%
		3 – 4 years	19	24.36%
		Above 4 years	9	11.54%

5. How often do you use the following type of electronic resources?

1	Entertainment	Very Often	0	--
		Often	9	11.54%
		Rarely	69	88.46%
		Never	0	--
2.	Educational/Academic	Very Often	18	23.08%
		Often	60	76.92%
		Rarely	0	- -
		Never	0	- -
3.	Sport	Very Often	10	12.82%
		Often	68	87.18%
		Rarely	0	- -

		Never	0	--
4.	Religious	Very Often	0	--
		Often	0	--
		Rarely	12	15.38%
		Never	66	84.62%
5.	News	Very Often	10	12.82%
		Often	51	65.38%
		Rarely	17	21.80%
		Never	0	--
6.	Commercial	Very Often	0	--
		Often	0	--
		Rarely	21	26.92%
		Never	57	73.08%
7	Pornographic	Very Often	0	--
		Often	0	--
		Rarely	10	12.82%
		Never	68	87.18%
8.	Military	Very Often	0	--
		Often	0	--
		Rarely	0	--
		Never	78	100.00%
9.	Library/Informational	Very Often	48	61.54%
		Often	30	38.46%
		Rarely	0	--
		Never	0	--
10.	Full text article databases	Very Often	27	34.62%
		Often	51	65.38%
		Rarely	0	--
		Never	0	--

The result of the research analysis in table 4 above revealed that students usage of electronic resources is quite high. A study of students of tertiary institution showed that they looked for the fastest way that would lead to satisfactory results when doing research, going for electronic information sources first (Valentine, 1993). According to Hall and Parsons (2001), dependence, coupled with easy access to technology, points toward students spending a substantial quantity of time on the Internet/online. Also from the result we could deduce that the frequency of usage of electronic resources is fairly high. electronic resources like library/informational, educational/academics, full text article databases, news, and sports are most frequently patronized unlike the religious, commercial, entertainment and pornographic resources are less likely patronized by respondents.

According to Hall (2000), the fact that the web has the ability to provide up-to-the-minute information and, secondly, this information can be obtained from around the world, made it a reliable source for news information. Thus, the news websites are highly patronized by students. From the result, there is a high level of students patronage of educational/academic resources, this is in agreement with

the findings of Pascoe, Applebee, and Clayton, (1996) that ease, convenience, and accessibility were major factors influencing academic Internet use.

Research Question 6: *Does gender affect the use of electronic resources by postgraduate students of the Department of Library and Information Science, Delta State University , Abraka?*

The results of the analysis are presented in table 5.

Table 5: Showing Gender and usage of electronic resources by postgraduate students of Delta State Library School

			Gender			
			Male		Female	
S/N	Items	Options	Frequency	Percentage	Frequency	Percentage
1.	Do you use electronic resources	Yes	31	100.00%	47	100.00%
		No	0	--	0	--
2.	How often do you use electronic resources	Very Often	21	67.74%	29	61.70%
		Often	10	32.26%	18	38.30%
		Rarely	0	--	0	--
		Never	0	--	0	--
3.	For how long have you been using electronic resources	Below 1year	10	32.26%	13	27.66%
		1 - 2 years	7	22.58%	20	42.55%
		3 – 4 years	10	32.26%	9	19.15%
		Above 4 years	4	12.90%	5	10.64%

From table 5 the result of the analysis revealed a high frequency of usage by both male and female respondents. According to Goodson, McCormick, & Evans, (2001); Odell, Korgen, Schumacher, & Delucchi, (2000) the gender gap in Internet use has narrowed significantly in the college age group hence, the high frequency of usage observed here is of similar reason to that discussed by Davis, Bagozzi, and Warshaw (1992) that intrinsic motivation (enjoyment) and extrinsic motivation (usefulness) were key drivers of behavioral intention to use ICTs. And Vallerand (1997), that intrinsic motivation emphasizes on the pleasure and inherent satisfaction derived from a specific activity. Researches by Atkinson & Kydd, 1997; Vankatesh, (1999) have shown that the intrinsic motivation factor (enjoyment) not only had a positive effect on the extrinsic motivation factor (usefulness), it also had a positive effect on the intention to use information technology. Additionally, the extrinsic motivation factor (usefulness) was also found to have a positive effect on the intention to use computers (Igbaria, 1993).

Research Question 7: *What are the problems encountered by postgraduate students of the Department of Library and Information Science, Delta State University, Abraka in using electronic resources?*

The results of the analysis is presented in table 6

Table 6: Problems encountered while using electronic resources

S/N	Items	Options	Frequency	Percentage
1.	Information overload (or too many information)	Agree	34	43.59%
		Disagree	44	56.41%
2.	The need to filter the results from search	Agree	58	74.36%
		Disagree	20	25.64%
3.	Download delay	Agree	55	70.51%
		Disagree	23	29.49%
4	Problem with credibility of information	Agree	12	15.38%
		Disagree	66	84.62%
5	Failure to find information	Agree	44	56.41%
		Disagree	34	43.59%
6	lack of search skills	Agree	61	78.20%
		Disagree	17	21.80%
	High cost of access	Agree	75	96.15%
		Disagree	3	3.85%
8	Power outages	Agree	78	100.00%
		Disagree	0	- -
9	Inaccessibility of some websites	Agree	40	51.28%
		Disagree	38	48.72%
10	Difficulties in navigation of some websites	Agree	50	64.10%
		Disagree	28	35.90%

From table 6 it was observed that there is a general endorsement by respondents that issues like large mass of irrelevant information, the need to filter the results from search are some of the basic problems encountered while using electronic resources, these corroborates Eliopoulos & Gotlieb, (2003) that the major problem with search engines is that search queries turn up far too many results, erring on the side of recall rather than precision. Other problems are download delay, failure to find information, inadequate/lack of search skills, high cost of access, power outages, unavailability /disappearance of some websites, inaccessibility of some websites, difficulties in navigating through electronic resources and so on. According to DeLone & McLean, (1992) In spite of the popularity of the Internet, people may resist using it due to the slow response time. And, people complain that the information generated by the web is not what they need. Furthermore, Branch, Kim, & Koenecke, (2000) posit that profuse amounts of information are put on the Internet every day and in many cases, there is no editor, reviewer, or any other kind of review mechanism to determine the credibility, quality, accuracy, or timeliness of the material.

Summary of the Study

The research surveyed the Use of Electronic Resources by Postgraduate Students of Library School in Delta State University , Abraka , Nigeria . Based on a detailed literature review a total of five (5) research questions were and tested on a sample size of 78 representing the total population of postgraduate MSc and PhD students of the Department of Library and Information Science, Delta State University, Abraka, Nigeria. The instrument employed for the collection of data was the questionnaire. Frequency counts and simple percentages were used in analyzing the data collected. From the data analysis the following findings were advanced.

There is a low level of skilfulness in the use of ICT among Postgraduate Students of the Department of Library and Information Science, Delta State University , Abraka.

There is a low level of electronic resource experience amongst Postgraduate Students of the Department of Library and Information Science, Delta State University , Abraka.

The internet via Cybercafé is the major facility used to access electronic resources by postgraduate students of the Department of Library and Information Science, Delta State University , Abraka .

The level of electronic resource usage by Postgraduate Students of the Department of Library and Information Science, Delta State University , Abraka is high.

There is a high frequency of usage of electronic resources by both male and female Postgraduate Students of the Department of Library and Information Science, Delta State University , Abraka. In other words gender gap in electronic resource usage is quite negligible.

Issues like large mass of irrelevant information, the need to filter the results from search, download delay, failure to find information, inadequate/lack of search skills, high cost of access, power outages, inaccessibility of some electronic resources, difficulties in navigating through electronic resources and so on are problems encountered when using electronic resources by Postgraduate Students the Department of Library and Information Science, Delta State University , Abraka.

Conclusion

From the foregoing, it is obvious that Postgraduate Students of Library School in Delta State need to do more in order to improve on their ICT skills so as to equip them in utilizing the enormous benefits available in electronic formats. The high level of usage of electronic resources even as evident among both male and female gender is an indication to the fact that even without the expertise knowledge of manipulating information in an electronic environment, students are still getting satisfaction from the little they could get out of electronic sources although handicapped by their low level of ICT experience. This high level of use is also as a result of their perception of ease and usefulness of electronic sources such as the web.

Recommendations

Based on the findings of the study the following recommendations were made by the researcher;

- Library schools must reach a position where the acquisition of Information and Communication Technology skills is acknowledged as one of the key learning objectives for its students so that students will be fully equipped to cope with the information intensive world as an end-user. To this end more practical courses on ICTs should be inculcated into the curriculum.
- Government should equip schools with the enabling infrastructure such as adequate power supply, effective internet connectivity etc. that will encourage the usage of ICTs by students.
- ICT centres with well trained personnel should be established in the universities where students can have free access to computers, the web and other electronic sources.
- Library schools in Delta State should be staffed with more technical staff to impact ICT skills on students.

References

Abels, E., Liebscher, P., & Denman, D. (1996) Factors that influence use of electronic networks by science and engineering faculty at small institutions. Part I. *Queries. Journal of the American Society for Information Science* 47 (2): 146–158.

- Adams, D. A., Nelson, R. R., & Todd, P. A. (1992). Perceived usefulness, ease of use, and usage of information technology: A replication. *MIS Quarterly* 16 : 227-247.
- Adam, L., & F. Woods (1999) An investigation of the impact of Information And Communication Technologies in sub-Saharan Africa. *Journal of Information Science* 25 (4): 307–318.
- Adomi, E. E. (2006). Mobile phone usage patterns of library and information science students at Delta State University, Abraka, Nigeria. *Electronic Journal of Academic and Special Librarianship* .
- Agarwal, R ., & Karahanna, E. (2000) Time flies when you're having fun: Cognitive absorption and beliefs about information technology usage. *MIS Quarterly* 24 (4):665–694.
- Agarwal, R ., & Prasad, J. (1998). The antecedents and consequents of user perceptions in information technology adoption. *Decision Support Systems* 22 : 15–29.
- Agbonlahor, R. O. (2006) Motivation for use of information technology by university faculty: a developing country perspective. Available: <http://idv.sagepub.com/cgi/content/abstract/22/4/261> .
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour* . Eaglewood Cliffs, NJ: Prentice-Hall.
- Anadarajan, M., Igbaria, M ., & Anakwe, U. P. (2002). IT acceptance in a less-developed country: A motivation factor perspective. *International Journal of Information Management* 22 (1): 47–65.
- Anderson, K. J. (2001). Internet use among college students: An exploratory study. *Journal of American College Health* 50 (1): 21-26.
- Atkinson, M., & Kydd, C. (1997). Individual characteristics associated with World Wide Web use: An empirical study of playfulness and motivation. *The DATA BASE for Advances in Information Systems* 28 (2): 53–61
- Bagozzi, R. P., Davis, F. D., & Warshaw, P. R. (1992). Development and test of a theory of technological learning and usage. *Human Relations* 45 (7): 660-686.
- Bandura, A. (1997). *Self-efficacy: The exercise of control* . New York, NY: W.H. Freeman.
- Bandyopadhyay, A., & Chu, H. (1999). Electronic journals versus print journals: An evaluation framework. *Proceedings of the Twentieth National Online Meeting* . (New York Hilton).
- Berners-Lee, T. (1996): The World-Wide-Web: Past, present and future. Available: <http://www13.w3.org/People/Berners-Lee/1996/ppf.html>
- Bilal, D. (2000). Children's use of the Yahoo! search engine. I. Cognitive, physical, and affective behaviours on fact-based search tasks. *Journal of the American Society for Information Science* 51 (7): 646-65.
- Bimber, B. (2000). Measuring the gender gap on the Internet. *Social Science Quarterly* 81 (3): 868-876.
- Blandy, S.G., Libutti, P. (1995). As the cursor blinks: Electronic scholarship and undergraduates in the library. *Library Trends* 44 (2): 279-305.

- Blumenstyk, G. (2001). Publishers promote e-textbooks, but many students and professors are skeptical. *Chronicle of Higher Education* 47 (36): A35-A36.
- Boneva, B., Kraut, R., & Frohlich, D. (2001). Using e-mail for personal relationships: The difference gender makes. *American Behavioural Scientist* 45 (3): 530-549.
- Branch, R., Kim, D., & Koenecke, L. (2000). Online educational materials for use in instruction. *Teacher Librarian* 28 (1): 21-23.
- Brenner, V. (1997). Psychology of computer use: XLVII. Parameters of Internet use, abuse and addiction: The first 90 days of the Internet Usage Survey. *Psychological Reports* 80 (3): 879-882
- Brophy, P. (1993) Networking in British academic libraries. *British Journal of Academic Librarianship* 8 (1): 49-60.
- Brosnan, M.J. (1998). The impact of computer anxiety and self-efficacy upon performance. *Journal of Computer Assisted Learning* 14 (3): 223-235.
- Brown, P., Challagalla, G., & Ganesan, S. (2001). Self-efficacy as a moderator of information seeking effectiveness. *Journal of Applied Psychology* 86 (5): 1043-1051.
- Busselle, R., J. Reagan, B. Pinkleton, & Jackson, K. (1999). Factors affecting Internet use in a saturated-access population. *Telematics and Informatics* 16 :45–58.
- Burton , V. T., & Chadwick, S. A. (2000). Investigating the practices of student researchers: Patterns of use and criteria for use of Internet and library sources. *Computers and Composition* 17 (3): 309-328.
- Campbell , N. 1990. High school students' computer attitudes and attributions: Gender and ethnic differences. *Journal of Adolescent Research* 5 :485–99.
- Choo, C.W., Detlor, B ., & Turnbull, D. (2000). Information seeking on the web: An Integrated model of browsing and searching. *First Monday* 5 (2). Available: http://firstmonday.org/issues/issue5_2/choo/index.html
- Corston, R., & Colman, A. (1996). Gender and social facilitation effects on computer competence and attitudes towards computers. *Journal of Educational Computing Research* 14:171–83.
- Cothey, V. (2002). A longitudinal study of World Wide Web users' information-searching behavior. *Journal of the American Society for Information Science and Technology* 53 (2): 67-78.
- Compeau, D.R., & Higgins, C.A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS Quarterly* 19 : 189-211.
- Dalgleish, A., & Hall, R. (2000). Use and perceptions of the World Wide Web in an information seeking environment. *Journal of Library and Information Science* 32 (3): 104-16.
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly* 13 : 319–340.
- Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science* 35 (8): 982–1003.

- D'Angelo, J., & Little, S. K. (1998). Successful web pages: What are they and do they exist? *Information Technology and Libraries* 17 (2): 71-81.
- D'Esposito, J. E., & Gardner, R. M. (1999). University students' perceptions of the Internet: An exploratory study. *The Journal of Academic Librarianship* 25 (6): 456-461.
- DeLone, W., & McLean, E. (1992). Information systems success: the quest for the dependent variable. *Information Systems Research* 3 (1): 60-95
- Dickhauser, O., & Stiensmeier-Pelster, J. (2002). Gender differences in computer work: Evidence for the model of achievement-related choices. *Contemporary Educational Psychology* 27 :486-96.
- Durndell, A., Z. Haag, D. Asenova, and H. Laithwaite. 2000. Computer Self Efficacy And Gender. Pp. 78-85 in E. Balka and R. Smith, eds., *Women, Work and Computerization: Charting a Course to the Future*. Boston , MA : Kluwer Academic Publishers.
- Dutton, B.G. (1990). An introduction to end-user searching. In: Bysouth, P.T. (ed) *End-user searching: the effective gateway to published information*. London : Aslib,1-18.
- Dyck, J.L. & Smither, J.A. (1994). Age differences in computer anxiety: the role of computer experience, gender and education. *Journal of educational computing research* 10 (3): 239-248.
- Ehikhamenor, F.A. (2003) Internet facilities: use and non-use by Nigerian university scientists. *Journal of Information Science* 29, (1): 35-48
- Eliopoulos, D., & Gotlieb, C. (2003). Evaluating web search results rankings. *Online* 27 42-48. Ford, N ., & Mansourian, Y. (2006): The invisible web: an empirical study of 'cognitive invisibility' , *Journal of Documentation* , Vol. 62 No. 5, pp. 584-96.
- Ford, N. & Miller D. (1996) Gender differences in internet perception and use. In: Collier, M. & Arnold , K. (eds.): *Electronic Library and Visual Information Research. ELVIRA 3: Papers from the Third ELVIRA conference 30 April-2 May 1996* , pp. 87-100 London : ASLIB
- Ford, N., Miller, D, & Moss, N. (2001) The role of individual differences in Internet searching: an empirical study. *Journal of the American Society for Information Science and technology*, 52 (12): 1049-1066
- Fourie, I. (2002): A review of web information-seeking/searching studies (2000-2002):implications for research in the South African context , in Bothma, I ., & Kaniki, A.(Eds): *Progress in Library and Information Science in Southern Africa (ProLISSA): Infuse* , Pretoria , pp. 49-76.
- Fourie, I. (2006): Learning from web information seeking studies: some suggestions for LIS practitioners , *The Electronic Library* , Vol. 24 No. 1, pp. 20-37.
- Glaser, B. (1998): *Doing Grounded Theory: Issues and Discussion*, Sociology Press, Mill Valley, CA.
- Gartner, (2004). The Gartner glossary of information technology acronym and terms . Available at <http://www.gartner.com> (accessed March 20 2007)
- Gates, K., Moore, J., Oberlin, J., Rusiecki, S., and Wascom, T. (2000) Equipping faculty for success with technology. In *EDUCAUSE 2000: Thinking IT Through: Proceedings and Post-Conference Materials*. Nashville , Tennessee , ERICDocument Reproduction Service, No. ED452798.

- Gilmore, E. (1998) Impact of training on the information technology attitudes of university faculty. Doctoral Dissertation, University of North Texas , Denton .
- Goodson, C. (2001). Web-connected generation. *The Futurist* 35 (5): 9.
- Goodson, P., McCormick, D., & Evans, A. (2001). Searching for sexually explicit materials on the Internet: An exploratory study of college students. *Archives of Sexual Behaviour* 30 (2): 101-118.
- Hall, A. S., & Parsons, J. (2001). Internet addiction: College student case study using best practices in cognitive behaviour therapy. *Journal of Mental Health Counselling* 23 (4): 312-327
- Heine, M., Winkworth, I. , & Ray, K. (2000). Modeling service-seeking behavior in an academic library: A methodology and its application. *Journal of Academic Librarianship* 26 (4): 233- 247.
- Hill, J.R., & Hannafin, M.J. (1997). Cognitive strategies and learning from the World Wide Web. *Educational Technology Research and Development* 45 (4): 37–64.
- Igbaria M. (1993) User acceptance of microcomputer technology: An empirical test. *Omega* 21 :73– 90
- Igbaria, M.T., Guimares, T., & Davis, G. B. (1995). Testing the determinates of microcomputer usage via a structural equation model. *Journal of Management Information Systems* 4 : 87–114
- Jacobson, F.F. (1991). Gender differences in attitudes toward using computers in libraries: An exploratory study. *Library and Information Studies Research* 13 :267-279.
- Jennings , S. E., & Onwuegbuzie, A. J. (2001). Computer attitudes as a function of age, gender, math attitude, and developmental status. *Journal of Educational Computing Research* 25 (4): 367-384
- Kibirge, H.M. & DePalo, L. (2000). The Internet as a source of academic research information: Findings of two pilot studies. *Information Technology and Libraries* 19: 11-16.
- Koohang, A.A. (1986). Effects of age, gender, college status, and computer experience on attitudes toward library computer systems (LCS). *Library and Information Science Research* 8 : 349-355.
- Laguna, K. & Babcock, R.L. (1997). Computer anxiety in young and older adults: Implications for human-computer interactions in older populations. *Computers in Human Behavior* 13 : 317-326.
- Laerum, H., Ellingsen, G., & Faxvaag A. (2001). Doctors' use of electronic medical records systems in hospitals: Cross sectional survey. *British Medical Journal* 323 (7323): 1344-1348
- Lazonder, A.W., Biemans, H.J.A., & Wopereis, I.G.J.H. (2000). Differences between novice and experienced users in searching for information on the World Wide Web. *Journal of the American Society for Information Science* 51 (6): 576-581
- Levin, T., & Gordon, C. (1989). Effect of gender and computer experience on attitudes toward computers. *Journal of Educational Computing Research* 5 :69–88.
- Lewis, B., & Behana, K. (2001). The Internet as a resource for consumer healthcare. *Disease Management and Health Outcomes* 9 (5): 241-248.

Lindsay, W., & McLaren, S. (2000). The Internet: An aid to student research or a source of frustration? *Journal of Educational Media* 25 (2): 115-128.

Majid, S. & Abazova, A.F. (1999). Computer literacy and use of electronic information sources by academics: A case study of International Islamic University, Malaysia. *Asian Libraries* 8 (4): 100-111.

McGuigan, G.S. (2001). Databases versus the Web: A discussion of teaching the use of electronic resources in the library instruction setting. *Internet Reference Services Quarterly* 6 (1): 39-47.

Meer, V., Fravel, P., Poole, H., & Van Valey, T. (1997). Are library users also computer users? A survey of faculty and implications for services. *The Public-Access Computer Systems Review* 8 (1). Available: <http://info.lib.uh.edu/pr/v8/n1/vand8n1.html>

Meyers, D. M. (2003). The impact of virtual office hours on in-class participation. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL, April 21-25.

Mitra, A., Willyard, J., Platt, C., & Parsons, M. (2005). Exploring web usage and selection criteria among male and female students. *Journal of Computer-Mediated Communication* 10 (3): article 10. Available: <http://jcmc.indiana.edu/vol10/issue3/mitra.html>

Miura, I. (1987). The relationship of computer self-efficacy expectations to computer interest and course enrollment in college. *Sex Roles* 16 :303–11.

Nahl, D., & Tenopir, C. (1996). Affective and cognitive searching behavior of novice end-users of a full-text database. *Journal of the American Society for Information Science* 47 (4): 276- 86.

National Center for Education Statistics (2001). IPEDS College opportunities on-line:

CUNY

Newburger, E. C. (1999). Computer use in the United States. October 1997. Current Population Reports, U.S. Census Bureau (pp. 1-11). Available: <http://www.census.gov>

Obuh, A. O. (2007). Accessibility and used of the Internet by undergraduate students of Nigeria University. *Educational Trends* 13 : 108-123.

Odell, P. M., Korgen, K. O., Schumacher, P., & Delucchi, M. (2000). Internet use among female and male college students. *Cyberpsychology and Behaviour* 3 (5): 855-862

Ono, H., & Zavodny, M. (2003). Gender and the Internet. *Social Science Quarterly* 84 (1): 111- 121.

Pajares, F. (1997). Current directions in self-efficacy research. In: M. Maehr & P. R. Pintrich (Eds.) *Advances in motivation and achievement*. Volume 10: 1-49. Greenwich, CT: JAI Press.

Pascoe, C., Applebee, A., & Clayton, P. (1996). Tidal wave or ripple? The impact of Internet on the academic. *Australian Library Review* 13 (2): 147-153

Pintrich, P.R., & Garcia, T. (1991) Student goal orientation and self-regulation in the college classroom. In: M. Maehr & P. R. Pintrich (eds.) *Advances in motivation and achievement: Goals and self-regulatory processes*: 371-402. Greenwich, CT: JAI Press.

- Pintrich, P.R., & Schunk, D.H. (1995). *Motivation in education: Theory, research, and applications*. Englewood Cliffs, NJ: Prentice-Hall.
- Reinen, I.J., & Plomp, T. (1997). Information technology and gender equality: A contradiction in terms? *Computers & Education* 28 :65-78.
- Ren, W. (2000). Library instruction and college student self-sufficiency in electronic information searching. *Journal of Academic Librarianship* 26 (5): 323-328.
- Sacks, C.H., Bellissimo, Y., & Mergendoller, J.R. (1994). Attitudes toward computers and computer use: The issue of gender. *Journal of Research on Computing in Education* 26 (2): 256-269.
- Sealy, M., Phillips, J. G., & Stevenson, R. (2002). Shyness and anxiety as predictors of patterns of Internet usage. *Cyberpsychology & Behaviour* 5 (6): 501-515 .
- Schunk, D.H. (1994). Self-regulation of self-efficacy and attributions in academic settings. In: Schunk, D.H., & Zimmerman, B.J. *Self-regulation of learning and performance: Issues and educational applications* : 75-99. Hillsdale, NJ: Lawrence Erlbaum.
- Smith, B. N., & Necessary, J. R. (1996). Assessing the computer literacy of undergraduate college students. *Education* 117 (2): 188-193.
- Shashaani, L. (1993). Gender-based differences in attitudes toward computers. *Computers & Education* 20 :169–81.
- Shaw, L. H., & Gant, L. M. (2002). Users divided? Exploring the gender gap in Internet use. *Cyberpsychology & Behaviour* 5 (6): 517-527
- Shih, C., & Gamon, J. (2001). Web-based learning: Relationships among student motivation, attitudes, learning styles, and achievement. *Journal of Agricultural Education* 42 (4): 12-20.
- Spink, A. (2003): Web search: Emerging patterns. *Library Trends* 52 (4): 299-306.
- Spink, A., & Jansen, B. (2004). *Web search: Public searching of the Web* . Dordrecht: Springer.
- Tiamiyu, M.A. (2000). Information technology in Nigerian federal agencies: Problems, impact and strategies. *Journal of Information Science* 26 (4): 227–237.
- Torkzadeh, G., Thomas, P., & Dyke, V. (2002). Effects of training on Internet self-efficacy and computer user attitudes. *Computers in Human Behaviour* 18 : 479-494.
- Valentine, B. (1993). Undergraduate research behavior: Using focus groups to generate theory. *Journal of Academic Librarianship* 19 (5): 300-304.
- Vankatesh, V., & Davis, F. D. (1996). A model of the antecedents of perceived ease of use: Development and test. *Decision Sciences* 27 (3): 451–481
- Whitley, B. (1997). Gender differences in computer-related attitudes and behaviour: A meta-analysis. *Computers in Human Behaviour* 13 :1–22.

Whitmire, E. (2001a). The relationship between undergraduates' background characteristics and college experiences and their academic library use. *College and Research Libraries* 62 (6): 528-540.

Whitmire, E. (2001b). A longitudinal study of undergraduates' academic library experiences. *Journal of Academic Librarianship* 27 (5): 379-385.

Wilson, T. (2000). Web's gender shift more than a curiosity. *Internet Week* 827 : 28.

Young, B. J. (2001). Gender differences in student attitudes toward computers. *Journal of Research on Computing in Education* 33 (2): 204-16.

Young, J. R. (2001). A university that reverses tradition experiments with E-books. *The Chronicle of Higher Education* 47 (36): A39-A40.

Zhang, Y. X. (2002). Comparison of Internet attitudes between industrial employees and college students. *Cyberpsychology & Behaviour* 5 (2): 143-149.

Zhang, J ., & Dimitroff, A. (2005). The impact of webpage content characteristics on Webpage visibility in search engine results. Part I. *Information Processing and Management* 41 (3): 665-90.