

# Availability And Uses Of Online Resources By University Students

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## Abstract

The study looked at the benefits and drawbacks of having access to and using online resources. It also looked at their availability, how often they are used, how to get to them, and how easy it is to use different kinds of ORs type sequences. With the study's goals in mind, questionnaires were made so that quantitative research could be done. The respondents who took part were graduate students from universities in Punjab that offer advanced degrees in research. The information was given in numbers and on different scales, such as nominal, ordinal, interval, and ration. The results showed that research students have different levels of access to online resources like the HEC library and databases of journals and magazines. Students who do research often use electronic books, articles from journals and magazines, and the HEC library. Master of Science and Master of Philosophy students use blogs and wikis in particular to do research and study. The vast majority of research students who took part in this study also said they were unhappy with the digital materials that are currently available. For their studies and research, they needed materials that were easier to get to. The main benefits of using online resources are quick access, access to a wide range of information, up-to-date information, and a choice of how to view the information. The main problems with getting to and using online informant resources are power outages (called "load shedding"), slow or no internet connections, and a lack of computers in institutes and libraries. In light of these results, suggestions were made for what could be done.

## Introduction

Information and communication technologies (ICTs) are used in every sector of society in the twenty-first century (Adebogore, 2011). Electronic resources are better than the ones that were printed on paper. People are using information and communication technologies (ICTs) more and more to learn what they need to know and understand. Personal computers and other forms of ICT are essential to the growth of knowledge transformation (World Bank, 2002). The rise of information and communication technologies

has changed how people get information, organize it, process it, and send it in the virtual world. This kind of technology makes it easier for people to find, access, and use information, even if they are far away or don't speak the same language (Kattimani, 2010). Online databases are becoming more important to scholars (Kumar & Kumar, 2008). Users can get to a resource in different ways, depending on what it is. Thanks to open access resources, anyone can easily find and read full-text articles from reliable sources without having to pay for them. Some of these could be libraries, electronic books, specialized magazines and

newspapers, and databases. By definition, subscribed resources need to verify the user in some way before letting them access the information they hold. Some resources can only access their central nodes and data stores in limited ways. These tools give you access to a library's bibliographical database, but they want to know who you are before they show you the content of any citations or articles. Having access to materials online is not the same as having access to them (Agulu & Aguolu, 2002). Accessibility means that people can get the materials, but they have to go through an authentication and access process before they can use them. This step is needed to get to online content that costs money. Some people use the login information of a coworker or friend to get to the information. There are some gray areas when it comes to the law, but it is common for people in developing and under-developed countries to share their login information so they can all use the same shared resources. Financial issues are the main reason why faculty have better access than students. Due to the cost per user, most institutes only give access to their faculty and, sometimes, research students. Since online resources are better in a number of ways than other types of electronic resources, more library users and academic researchers are using them. What are some ways to explain what online resources are? "E-resources" are things like websites where information is stored electronically and can be accessed through an electronic system and network (Dhanavandan & Tamizhchelvan, 2012, P-32). There are many online resources, also called e-resources, that can be used today. Databases, websites, electronic books, magazines, archives, theses, and exams are all good examples (Deng, 2010). With the rise of information hubs, databases, and then web 2.0 technologies, the way information is made, managed, acquired, and shared with researchers and people looking for information has changed a lot. There are many different kinds of online resources, such as "databases, books, journals, newspapers, magazines, archives, theses, conference papers, exam papers, government files, research reports, scripts, and monographs in electronic form" (Adams & Bonk, 1995; Liu, 2006; Moyo, 2004; Nicholas et al., 2007). Depending on what the study is about and how big it is, all forms are important. But each has its place in the search for information and knowledge for the classroom or lab.

### Significance of the Study

Computers and the Internet are the most important innovations of the last few decades because they have had such a big impact on people's lives. Every part of life has changed drastically or is changing drastically right now. This change is also having an effect on the academic and scientific worlds. There have been changes in how people think about, get, store, and share information. The Internet is now an important part of both learning and researching. It's important to know what kinds of online resources are out there and how to use them best. This study shows how research students use online resources to get the information they need and how they use these resources. There isn't much research in Pakistan that compares the number of people who pay for individual subscriptions to the number of people who use institutional subscriptions, open access, or HEC-provided resources. Because of this, it is important to know how happy Internet users are. This can happen if researchers find a difference between how users actually use online information and tools and how they would like to use them. In this study, we look at how research students in Pakistan feel about different kinds of online resources.

### Objectives of the Study

The specific objectives of this study are:

1. To investigate the "importance level" of each sort of online resource for research students.
2. To investigate the online resources available to college students at public and private universities.
3. Determine the mode of accessibility for various types of online resources.

### Research Hypotheses

The study intends to test the following hypothesis:

H01: There will be no significant difference in the availability of Online resources in male and female students.

H02: There will be no significant difference in the importance level of different types of Online resources among male and female research student.

H03: There will be no significant difference in access patterns of

available Online resources in male and female research student.

### **Literature Review**

To learn more about the topic and the different ways Online resources can be used, it was important to look at studies and research that had already been done. Access to and use of information resources by research students is a subject that has been written about a lot. Since online materials are so easy to find, academics, researchers, and students have started to value them more. More and more people are going to libraries that have already switched to digital formats or are in the process of doing so (Morse & Clintworth, 2000). In his research, Ajala (2001) said that the main reason for the change from print to digital libraries is that the amount of information has grown so much. Because of this, the Internet is now an important part of any library's collection (Lang, 2008). Since OIR (Online resources) have been added to libraries, they are worth more (Clarke, 2004). Since OIRs have a lot of benefits, libraries are turning to electronic resources more and more to keep up with the needs of the digital age (Okorie & Agboola, 2012). People turn to the Internet to find information because the prices of offline sources are going up, too (Suber & Arunachalam, 2005). Researchers came to the conclusion that the space issue (Lee, 1993), the availability of multiple formats (Schrock, 1999), the availability of up-to-date information (Dadzie, 2007), and the ease of access are the main reasons to change traditional resources into online information resources (Madhusudhan, 2007; Oduwole & Akpati, 2003).

### **Availability and Access of Online resources**

There are many ways for people to get into online resources. Thanks to open access resources, anyone can easily find and read full-text articles from reliable sources without having to pay for them. Some of these could be libraries, electronic books, specialized magazines and newspapers, and databases. By definition, subscribed resources need to verify the user in some way before letting them access the information they hold. Some resources can only access their central nodes and data stores in limited ways. These tools give you access to a library's bibliographical database, but they want to know who

you are before they show you the content of any citations or articles. Just because something is on the Internet doesn't mean that everyone can get to it (Agulu & Aguolu, 2002). Accessibility means that people can get the materials, but they have to go through an authentication and access process before they can use them. This step is needed to get to online content that costs money. Some people use the login information of a coworker or friend to get to the information. Users in less-developed or even developing countries are more likely to share their login information so that others can use shared resources. Financial issues are the main reason why faculty have better access than students. Due to the cost per user, most institutes only give access to their faculty and, sometimes, research students.

### **The Use of Online resources**

Researchers and students are both getting more and more used to using online resources. "Research students" are graduate students in the M.Phil. and Ph.D. programs who are required to do research as part of their studies. Students usually spend some time in class doing course work to learn more about "how to do a research." After that, students work on their own research projects with the help of a PhD advisor. This lets them put their theoretical knowledge to use in the real world. Students need access to online materials for both class work and studying on their own. They use both offline and online materials for school and research. Research articles are often used by students because they are an easy way to get up-to-date information on a topic. They also looked at electronic books, archives of past research, and conference sessions to find out what was going on in their fields. When a student does research online for a class assignment, a presentation, a research paper, a thesis, or just to learn more about a topic, this is called "using online resources."

### **Types / Kind of Online resources**

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Deng (2010) pointed out that there are following nine major types of online resources which may available in the university library.

- library catalogue;
- online journals;
- website information;
- online newspapers;
- electronic books
- online magazines;
- online archives;
- online theses; and
- exam papers

More studies have shown that these kinds of classifications are correct. This is supported by Goncalves et al. (2007), Agnew et al. (2006), and Adams and Bonk (1995). In the last few years, there has been a shift from analog to digital sources, and most people would rather get their information from the internet these days (Broering, 1994; Walker, 1998). More people are using these digital resources because computer and internet technology is getting better. Books, journals, theses, and any other archival material can be accessed online or on a personal device at any time. Online public access catalogs (OPACs) and subject gateways are two of the most used types of online library resources (Dadzie, 2005). In the past, only electronic journals and books were available to and valued by scholars. Researchers have found that academics use materials that are both scholarly and not scholarly (Armstrong & Norton, 2007; Nikam &

Rahenda, 2009). Kirkwood and Price (2007) also said that ICTs (information and communication technologies) have become more important over the past 30 years. So, as information and communication technologies got better, scholars, researchers, and students found online resources to be more useful (Marcum & George, 2003; Wakeham & Garfield, 2005). There is more and more information online in a wide range of formats and fields (Wakeham and Garfield, 2005).

### **Awareness of Information Resources**

Because there is so much information online, there needs to be a lot of education about how to use it. If a website visitor knows where to look, it will be easier for them to find what they need on the site. For their own information needs, users should also know about relevant resources that are easy to reach. Researchers like Badu and Markwei (2005) have found in the few studies that have been done on this topic that teachers and students at Ghana University are aware of online resources but rarely use them. The study's authors found that both teachers and students know a lot about email and the World Wide Web. They also know a lot about online resources like "discussion groups, Usenet news groups, Telnet, file transfer protocol (FTP), email, directories, search engines, information gateways, and the World Wide Web (WWW)" (WWW). Most of the people who answered do not value any other sources. The study's author says that staff members know more about online resources than students do because they often meet with other faculty members at professional development events and conferences. Previous studies by Adele et al. (1995), Applebee et al. (1997, 2003), Ojedokun and Owolabi (2003), and Tillman and Ladner (2003) agree with the results of this study (1992). Applebee et al. (1997) say that most faculty and staff know how to use the OPAC and do so to do research and improve classroom instruction. They also use the Internet to find out about conferences and job openings that are coming up. Jefferies and Hussain (1998) say that most faculty members know how to use the tools on the web, and many use it to do research and share what they've found with their students. Madhusudhan's (2007) study showed that most researchers knew the benefits of using the Internet for their research. However, he also found that researchers could do a better job of using online resources. Students and faculty can learn more about online resources if the university administration and library staff do their jobs well.

Ibrahim (2004) did a study called "Usage and User Perception of Electronic Resources in the United Arab Emirates." He found that teachers in the area either didn't know much about these resources or didn't use them much. Even though low use is a problem for all e-resources, it is especially hard to get the word out about "e-books, bibliographic databases, and e-journals." The study also shows that libraries have a lot of resources, but that librarians should hold workshops and training to help people learn about the many online resources they have. Ibrahim's (1999) research results and Borrego et al (2006) 's research results are the same (2004). Borrego et al. (2006) found that professors at Catalan universities know a lot about where to find relevant electronic publications. Also, 95% of those who answered said they knew about the online journal collection available through the university library website. Most of the people who answered in the final year of Ghana Business School said they learned about the Internet from their friends and family. Hands-on experience was a close second (Hinson & Amidu, 2006).

### Materials and Methods

A quantitative research approach was adopted to provide statistical evidence concerning the effects of independent variables on the dependent variable under study. The literature review revealed a lack of empirical evidence in the field of psychological constructs, particularly at the university level. 3 universities were randomly selected from Lahore Punjab and . Second, participants have selected through convenience sampling techniques collection, the sample was selected from the accessible population. Overall, 463 students participated in the survey. and the questionnaires were self-developed

### Results and Data Analysis

**Table 1:** Respondents' Characteristics

Variables	Male Frequency Percentage	Female Frequency	To
Type of Institutes			

Public	125	44.8%	148	53.2%	274 (59.2%)
Private	115	62.7%	71	37.3 %	187 (40.5%)
Total (N)	240	51.26%	221	47.73%	461 (100%)
Type of Program					
MS / M.Phil	186	77.4%	166	75.5%	352 (76.02%)
PhD	56	21.6%	53	24.5%	111 (23.97%)
Total (N)	242	52.26%	220	47.75%	463 (100%)
Level of Program					
Course Work	151	62.2%	157	71.4%	312 (66.17%)
Research Work	92	37.8%	62	28.6%	151 (31.82%)
Total (N)	242	51.26%	221	47.72%	462 (100%)

This chart shows how much time public and private colleges and institutes spend on research on the weekends. Students at public universities paid less attention to weekend shows (19 & 18 frequency shows). In the for-profit academic world, the same patterns can be seen. This study focused on graduate students who were working toward a Master of Science/Master of Philosophy or a Doctor of Philosophy. There are now 279 full-time students in master's and doctoral programs in Lahore, both public

and private. This happens a lot more often than among full-time (20) and part-time (53) students. The numbers also show that students who have already finished a full-time degree often choose to join a program that only meets on the weekends. At the same rate that students enroll in full-time programs, they also choose part-time programs as their second choice for advanced study at a rate of 17. PhD students rarely do things on the weekends.

**Table 2:** Current and Desired Satisfaction Level of Research Students towards different Online resources (N-463)

Resources	Current Satisfaction Level		Desired Satisfaction Level		Difference
	Mean	Std. Deviation	Mean	Std. Deviation	
HEC journal databases	5.78	2.28	8.53	4.60	-2.74
HEC electronic books (e-Books)	5.58	2.34	8.31	2.01	-2.70

Proceedings for Conferences / Workshops / Seminars	5.78	2.42	8.41	1.84	-2.60
HEC research repository	5.59	2.35	8.16	2.02	-2.57
Library catalogs (OPACs)	5.82	2.22	8.22	1.96	-2.41
Patents / Reports	5.81	2.25	8.20	2.05	-2.38
Dissertations / Theses	6.09	2.24	8.40	1.92	-2.32
Mailing groups	5.85	2.26	8.15	2.06	-2.31
Institutional websites / repositories	6.15	2.14	8.2	1.98	-2.13
eBooks	6.31	2.13	8.43	1.86	-2.11
Social networking sites like blogs, wikis etc.	6.23	2.35	8.34	1.95	-2.10
Journals / Magazines	6.51	2.21	8.43	1.93	-1.91

As you can see in Table 2, research students expectations and need more online materials to help them with their studies. People are less dissatisfied

than they would like to be with the wide range of periodicals and magazines that can be subscribed to by individuals or institutions or read online for free

**Table 3:** Usage Purpose of Online resources

Purposes	Mean	Std. Deviation	Sum
Study	4.28	0.85	1986
Class Presentation	4.46	0.73	2065
Research	4.52	0.71	2097
Course Work	4.69	4.7	2175

Table 3 statistical analysis also shows that students always use online materials for both classwork and independent study, with mean values of 4.69 and 4.52, respectively. In class and on their own, research students use online resources often (4.46 and 4.28 mean frequencies). The standard deviation shows that most of the study, presentation, and research data points are pretty close to the mean. A standard deviation of 4.7 for course work shows that the data points cover a wide range of values and that the course work answers themselves are very different.

## Discussions

The results of the quantitative research showed that people have preconceived notions regarding online resources. The vast majority of responders are savvy Internet surfers who rely only on the World Wide Web for research. Those who filled out the survey were drawn from both public and private Lahore universities, and they represented a wide range of academic disciplines. Students pursuing graduate degrees in research (Master of Science, Master of Philosophy, and Doctor of Philosophy) were included. When comparing how satisfied students are now with HEC journal databases to how satisfied they want to be, there are significant gaps. There are high hopes for access, but the actual level is not yet at the anticipated

one. It is clear that users' actual and ideal levels of pleasure with various types of online resources are not always the same. To a greater extent than at present, users of HEC electronic books (eBooks), conference/workshop/seminar proceedings, the HEC research repository, library catalogs (OPACs), patents/research reports, dissertations/theses, mailing groups, institutional websites/repositories, eBooks, social networking sites like blogs/wikis/journal magazines, etc., would like to be satisfied with their experience. Users have many reasons for consulting these sources of data (Kumar and Kumar, 2008). To complete their assignments, research students often turn to the Internet. They need more reading material to satisfy their information and knowledge needs so that they can complete course assignments. Research students conducted a literature review as part of their study to help them structure their investigation. Ansari and Zuberi (2010) and Obaje and Camble (2008) cite student use of online resources to meet their educational and research needs. Research students use the Internet for a variety of reasons, including general study and class presentations.

## Conclusions

Based on what the study found, the following conclusions can be made.

1. Research students can use different kinds of online resources, and the number of these kinds of online resources is growing. As the number of research students in different fields grows, so does the demand for more kinds of online resources. In the last ten years, a lot of new colleges and universities have opened, and many of them now offer new majors. The number of students in higher education is also going up, especially at the college level. These students are very familiar with the things they need to do on the Internet for school and research.
2. Students doing research in public universities have access to more online resources than students in private universities. When looking at the data, it is clear that public universities have a much wider range of online resources than private universities. The Higher Education Commission of Pakistan (HEC) also gives all public universities in Pakistan access to a wide range of databases. However, private universities only have limited or partial access to some databases.

3. More people are signing up for different research programs, and the number of men and women is about right. The best option for students is to sign up for a full-time research program. Even though some universities offer programs on the weekends or in the evenings, most students prefer to sign up for full-time research programs. Only a few programs in the humanities and social sciences have good students in their weekend classes. However, there are no weekend or evening classes in engineering or science at any university.

4. Research students need to use online resources, especially databases of electronic books and journals/magazines. Pakistan National Research Repository is not as important as other resources offered by Higher Education Commission of Pakistan. Students use electronic books and journals more than other online resources, especially print resources, because they are easy to get to, flexible, and have a lot of different kinds of content. Researchers love books and journals because they have information that is up to date and new.

5. In addition to HEC's online resources, MS and PhD students need free electronic books and journal articles. Blogs and wikis, which are forms of social networking, are also important for college students' research and course work. Budget is a big problem at almost all universities, making it hard for students to get to the information resources they need. To deal with this problem, students use electronic books and journal articles that they can get for free. Even though quality is a concern, they are able to find and use free resources for their schoolwork. Blogs and wikis, which are social networking sites, are good places to find free online resources.

## Recommendations

The results of the study lead to the following suggestions:

First, the library needs to hold workshops on how to find and use information to teach people about all the resources they have at their fingertips. If the people who could benefit from a resource don't know about it, it becomes less useful or even useless. Because it's important for library users to know how to use the library's resources, the library's management should set up "knowledge sessions."



Teachers, professors, and advisors should know about good online resources that can help them point students and researchers in the right direction. Most of the time, students need help from their professors or advisors to know which sources of information to use when doing research. Because of this, it is important for all teachers, managers, and tour guides to know how good most information resources are in their fields. So, they'll be better able to guide their students' work at home and in the classroom. 3. Libraries should set up training programs to help people build their skills and learn how to use their resources effectively. Even if users know about the resources and know they exist, they might not know how to use them best. Every library system should make its staff and users go through some kind of training on how to use online resources effectively. Lifelong education gives students the tools they need to get the information they need. It also gives them the skills they need to put that information to good use.

4. The people who work in and run a library should know what kinds of information the students who use it to study need. This is the first thing that needs to be done before any plan can be made to make sure that users can get to the information they need. It is very important to know what information the users need. At this point, customers can choose a trustworthy source of information that meets their needs best. This will not only make the source more useful, but it will also save money and make it more valuable.

The fifth point is that libraries should manage and organize a variety of online resources for their users. Libraries should also give their customers access to a wide range of digital resources, which have many advantages over traditional print materials. Managing resources and putting them in the right place are two different but related jobs. So, librarians who care about their customers should focus on both sides, i.e., organizing and managing different kinds of online resources.

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