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Information Seeking Behavior: A Study of Students in Schools of Management and Business Studies in National Capital Territory (NCT) of Delhi

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Abstract

The present study tries to explore Post graduate management students' information seeking behavior related to their process of inquiry and scholarly activities. Self-structured questionnaire was distributed among 250 management students representing Universities in Delhi, namely GGS IP University, Jamia Millia Islamia and University of Delhi in the NCT of Delhi. However, only 180 subjects returned the duly filled in questionnaires. The combined use of quantitative and qualitative analysis aimed to reduce subjectivity. Post graduate management students (MBA) often begin with a meeting with professors who provide direction, recommend and provide resources. Other students help to shape students' research iactivities, and university library personnel provide guidance in finding resources. The Internet plays a major role, although students continue to use print resources. Convenience, lack of sophistication in finding and using resources and course requirements affect their information behavior. Findings vary across universities. Academic Libraries can influence students' information behavior by re-evaluating their instructional programmes and provision of resources and services. They can take a lead by working with academic staff to guide students.

1. INTRODUCTION

Nearly all information resources have increased, at times dramatically, over the last several years. In the United States from 1999 to 2002, books (original print) have

increased by 83% while online scholarly journals nearly doubled from 1997 - 2001 **(Lyman and Varian 2003).** Faced with increasing competition from such a major information source as the Internet combined with patron demands, the average library budget that is spent on electronic materials has increased almost fourfold, from an estimated 4% in 1992-93 to 13% in 1999- 2000 **(Association of Research Libraries 2005: 7**). For academic libraries to adequately address the changing information needs of its students, they need to know more about the information that students use and value and What influences their information searching, obtaining, and use. To address these questions this study explores management students' information seeking behavior as they pursue their scholarly activities—the role of people, the Internet, the academic library, and other influences.

Schools of Management and Business Studies include departments/schools affiliated to the universities/institution of higher education imparting learning and research in the subject of Management and Business Studies and awarding degrees of MBA at post graduate level.

NCT also known as the **National Capital Territory of Delhi** is a metropolitan region in India that includes the national capital city, New Delhi. It is India's second-most-populous city after Mumbai, and the largest city in terms of area. With a population of 22 million in 2011, the city is the fourth-largest city in the world. However, it does not cover areas under NCR, i.e., National Capital Region covering the neighbouring cities of Baghpat, Gurgaon, Sonepat, Faridabad, Ghaziabad, Noida, Greater Noida and other nearby towns.

2. PROBLEM STATEMENT

The purpose of this study is to describe the information behavior of the management students and their use of information to support their process of inquiry and scholarly activities. Information behavior, as described by **Wilson,** to be 'those activities a person may engage in when identifying their own needs for information, searching for such information in any way, and using or transferring that information' (1999: 249). More specifically this study was designed to explore the following questions:

- How do management students seek and obtain information, and what are the related issues?
- What information resources do graduate student value, and where do they find them?
- What role do people have in graduate students' information seeking?
- What other factors influence graduate students' information seeking behavior?

3. LITERATURE REVIEW AND OTHER RELATED STUDIES

Consistent with Wilson's definition, Pettigrew *et al*. (2001) define information behavior as the study of how people need, seek, give and use information in different contexts, including the workplace and everyday living. In the context of this study, the term information behavior is as it applies to management students as they seek, search for, and use information to support their scholarly endeavors, focusing primarily on

their research process. Research sample will enable to explore and compare the differences among subjects of different universities. A multidisciplinary, qualitative study that focuses on management students as they conduct their research and process of inquiry is lacking in previous studies.

Other studies have focused on information behavior of high school, college, university students and professionals. Two recent national studies looked at information behavior in colleges and universities. Both studies corroborate that the Internet and libraries' online resources play a heavy role in participants' information seeking. The first, *Dimensions and Use of the Scholarly Information Environment* conducted by the Digital Library Federation and the research firm Outsell, Inc., focused on information use of students and faculty members at Scholarly use of information *in* colleges and universities **(Friedlander 2002**). Using structured, telephone interviews, this study surveyed 3, 234 faculty members, graduate students and undergraduate students from colleges and universities on how the Internet affects their scholarly work and the consequences it might have on campus libraries. This study examined such issues as what information resources support scholarly work, how users find information and what problems are encountered.

The second national study of interest was from Online Computer Library Center, which commissioned Harris Interactive to conduct an online survey of college and university students, reported in the ***OCLC White Paper on the information habits of college students*** **(2002**). The objective of this study was to describe college and university students' views of successful information delivery. This study examined such issues as what students think about the information on the Internet, in the library, in print; how they access information; and what they value. A number of smaller studies exist on the information behavior of students and professionals **(Foster 2004, Kerins, *et al*. 2004; Fidzani 1998; and Steinerova and Susol 2005).**

These studies focus on how students, primarily undergraduate and/or professionals in specific fields or disciplines seek information and the related issues. Few previous studies have concentrated attention on the research process of graduate students.

Previous major studies were based on the survey approach or structured interview to gather information. Here, qualitative research approach could have been added for an in depth study. To extend the current research and concentrate on the segment of the student population that is most highly engaged in the research process, this study focuses entirely on post graduate management students and their process of inquiry or research as it relates to their information seeking behavior. Based on anecdotal information from librarians and academic faculty, this study recognized that post graduate management student information behavior might differ from one university to another.

There are various studies available in primary and secondary sources on the use and pattern of e-resources carried out by students, research scholars, and faculty members of various institutions/ universities across globe during the recent past. But, there has been a derth of studies in Indian context. Some prominent studies concerning e-resources are by (Catalano, 2013), (Houde, 2013), (Allen, 2012), (Hruska, 2012), (McCrary, 2012), (Aubry, 2012), (Liu, 2012), (Dube, 2012), (Marsh, 2012), (Gibbard, 2012), (Polparsi, 2012), (Chung, 2012), (Murphy & Jongh, 2011),

(Ramnah, 2011), (Anderson, 2011), (Genuis, 2011), (Wine, 2011), (Lyons, 2011), (Armstrong, 2011), (Sharkey, 2011), (Wimpy, 2011), (Watkins, 2011), (Iyer, 2011), (Ho, 2011), (Zimmer, 2011), (Chatterjee, 2011).

4. METHODOLOGY

Used an exploratory qualitative and quantitative research approach with structured, in-depth questionnaire. It is maintained that qualitative research is useful to understand the experiences of participants, the context in which they act, the influences on their behavior and the processes surrounding their behavior. Qualitative research provides the opportunity to explore, not only the participants' actions, but their perceptions of the search process consistent with **Dervin's view** of information seeking as a process of sense making where a person finds meaning which fits in with his previous knowledge thus forming a personal point of view. **Kuhlthau** proposes a model for the information search process based on her previous work **(Kuhlthau 1988b, Ku hlthau 1988c, Kuhlthau 1989, and Kuhlthau *et al*. 1990**). The model considers the affective (feeling), cognitive (thoughts) and physical (actions) realms as stages in the information search process. Kuhlthau's work is based on **Kelly's (1963)** personal construct theory which describes a person's affective experience as they gather information. Using in depth, semi-structured interviews with graduate students, we were able to explore the three realms of the search process-affective, cognitive and physical.

4.1 Sample

The sample was drawn from the population of post graduate students enrolled at the GGSIP University, Jamia Millia Islamia and University of Delhi in the NCT of Delhi. Goal was to select a sample of students that represented master and doctoral students from all universities. It was decided on a sample of two hundred fifty post graduate students. Here, the researcher has been able to represent every university selected with at least 30 post graduate students. Although sample (one hundred eighty) is large for a qualitative study, it was desired to represent all universities and still have the benefits of such a study. The sample included primarily post graduate students, doctoral students and faculty in the subject of management studies with approximately equal representation of 30% of each category of subjects. However, this paper covers findings related to only post graduate students (MBA) enrolled at the GGS IP University, Jamia Millia Islamia and University of Delhi in the NCT of Delhi.

4.2 Data collection

In this case the questionnaire tries to provide a means of exploring the past as well as the current information seeking behavior of post graduate students.

They also provide a means of exploring the topic broadly while still retaining a comparable structure that enables a better frame of comparison when analyzing the responses Sample = 180 (100% random sample)

Questionnaires were distributed in Feb- March 2013 in a private space within the university library or at other campus locations.

Table 1: Subjects sample

Universities	Category of Subjects			% of subjects
	Students	Doctoral	Faculty	
GGS IP University	60	30	30	33.33
Jamia Millia Islamia	40	30	30	33.33
University of Delhi	80	30	30	33.33
Total	180	90	90	100

5. DATA ANALYSIS

With a reasonably-sized sample, but also able to combine the benefits of qualitative analysis with quantitative analysis. As suggested by Chi, by integrating qualitative and quantitative analysis of verbal data 'the interpretation of the results is less subjective' (Chi 1997: 271). All questionnaires were coded into meaningful categories using the qualitative data analysis software, Atlas. ti. For example, the quote, 'I would then go to Amazon.com and buy the book' was coded *S_Websites*. Using this method of coding, we were able to apply both qualitative and quantitative techniques to analyze the verbal data, that is, 'this quantitative based qualitative approach basically operationalies one's subjective impression by coding the verbal evidence for that impression and comparing the frequencies of the codes quantitatively' (Chi 1997: 277). The quantitative analysis of results provides a basis for comparison among disciplines as well as an overall summary of the study.

Four researchers engaged, who were trained in coding, to code transcripts. After coding five transcripts (Coders A and B each coded the same five and Coders C and D coded another five) the group met to discuss the codes and to check the consistency between partners and the pairs. This step was repeated by coding five more transcripts. When satisfied with the consistency of coding, all of the remaining transcripts were coded. Researcher A coded forty five transcripts while Researcher B coded the same forty five transcripts. Then joined the coded transcripts of A and B. Coders C and D did the same with the remaining forty five transcripts each. Once the transcripts were coded, able to analyze the data; explore the ideas expressed by the post graduate students regarding their methods, behavior and reasoning; and identify both simple and complex relationships.

It is important to note that general questions were asked rather than specific (e.g., ' What resources do you use?' Not 'Do you use JSTOR?'). Although the number of responses might have been higher had it used specific questions, responses might have been more limited. The general questions allow to get a better idea of the participants' behavior, thoughts and feelings that affect their information seeking.

6. RESULTS

The results of this study indicate that the post graduate students' information seeking behavior is influenced by people, primarily academic staff, in addition to other

students, friends, university library staff and people outside the university. Post Graduate students, who rely heavily on the Internet, prefer online resources, which they find on the Internet and the university library intranet. They also use print resources from the university library and other libraries. A few post graduate students mentioned factors that influence their search for information, including convenience, speed and time restrictions; knowledge of services and sources; and course requirements. These results are summarized in the following sections.

6.1 Influences of people

Though post graduate students have not yet had the opportunity to develop networks as extensive as those of their advisers and professors, they have begun the process. Advisers, professors, colleagues and university library personnel are the most influential; however, a few students have developed networks that extend beyond their own university to former and newly acquired contacts.

Academic staff

Nearly all post graduate students (97.78%) reported that academic staff (e.g., professors and library committee members) influences their research and information seeking. This is consistent across the discipline. A meeting with professors is often post graduate students' first step in their research process. Providing direction and guidance, academic staff answers questions, offer recommendations and provide resources. They help students to build the foundation for the work that follows. One or two key papers, a classic book, or a relevant journal can lead to a whole host of resources.

Table 2: Academic staff help

Universities	Category of Subjects Help from Students	Students	% of subjects
GGS IP University	60	45	75
Jamia Millia Islamia	40	28	70
University of Delhi	80	65	81.25
Total	180	176	75.41

Help comes through word of mouth in casual conversations and e-mail, during research seminars, or in formal one-to-one meetings. The amount of help varies, although when the overlap in research interest between participant and adviser is great, so is the amount of help. They meet once a week, once a month or on an as-needed basis. Academic staff put articles in graduate students' mailboxes, passes resources out in the research group or in one to-one meetings, or attaches an electronic file to an e-mail.

6.2 Students

Post Graduate students (75.41%) point to another rich source of help that comes from

other students. This varies across universities (75% in GGS IP University, 70% in Jamia Millia Islamia and 81.255 in University of Delhi**.**

Table 3: Students help

Universities	Category of Subjects Academic staff help	Students	% of subject s
GGS IP University	60	59	98.33
Jamia Millia Islamia	40	39	97.50
University of Delhi	80	78	97.50
Total	180	176	97.78

The peers share information on reference books, Websites, articles, journals, papers, movies and names of key people in the field. As a result, post graduate students are more focused and able to design better searches. This not only speeds up the process, but recommendations are sometimes for such obscure sources that it would have been difficult to find them without help.

Post Graduate students (75.41%) reported that peers share actual resources. They might *'stumble across a paper that would be relevant to the research that I'm doing*', lend a book, share print or electronic copies of magazine or journal articles, or send an e-mail with a link in it. Some research groups have developed a shared library of materials, such as conference papers, tapes and/or references.

Of particular interest is the insight that results from discussions with peers. Research groups and casual discussions are an opportunity for post graduate students to talk about their research, share ideas and get feedback all of which help to define and shape their research. In addition, more experienced students offer guidance on how to use the university library Website, library resources and services.

6.3 University library staff and other

For the technical aspects of information seeking, post graduate students (86.25%) turn to university library staff, primarily librarians. A wide range of variation has been noticed across universities from 80% in GGS IP University, 80% in Jamia Millia Islamia to 98.75% in University of Delhi**.** One explanation for the broad range of differences could be students' lack of experience. Ninety-one percent of post graduate students, who most often sought help from librarians, are in a final year of masters' programme.

The librarians are very, very helpful in finding resources. They help you find if the book is available or not available.

Those who seek help say university library staff point to relevant resources, respond to questions, announce new resources and teach graduate students how to find resources, use the library, navigate the library Website, create a more focused keyword search, or plan and conceptualize a new project. Post graduate students seek help in one-to-one sessions, e-mail, orientation sessions, research seminars, on site at the reference desk, live chat sessions and in class sessions. Preferences vary. Some

say that getting help at the reference desk directly is the easiest and most efficient, while others prefer online chat sessions which provide support when working off-site.

Table 4: University library personnel and others

Universities	Category of Subjects Help from UL staff	Students	% of subjects
GGS IP Universities	60	48	80
Jamia Millia Islamia	40	32	80
University of Delhi	80	79	98.75
Total	180	159	86.25

6.3 Internet resource

All post graduate students reported searching the university library intranet or the Internet for their resources. All (100%) described the Internet as extremely useful, their primary method of searching, or the next step after meeting with advisers.

Table 5: Use of Internet

Universities	Category of Subjects Help from Students	Students	% of subjects
GGS IP University	60	60	100
Jamia Millia Islamia	40	40	100
University of Delhi	80	80	100
Total	180	180	100

Nearly half (49%) of the participants, particularly first year students (55%), choose the Internet because it is perceived as convenient, fast and current. The Internet's powerful search engines allow users to quickly search a massive amount of materials from diverse sources, from scholarly journals to lecture notes in multi-disciplinary fields. With online information they can find, scan, download and print from any location with the Internet connection. Because they can search through online versions quickly, graduate students are more likely to view papers of questionable value, that is, papers that might or might not be relevant to their research. They might not take the time to view such papers if they had to go to the library.

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Table 6: Use of Internet resources-

Universities Internet Resources	GGS IP University	Responses %	Jamia Millia Islamia	Responses %	University of Delhi	Response s %
WWW use (non-library)	60	100	40	100	80	100
Google searches	60	100	40	100	80	100
Search for Websites	48	75	25	60.25	65	81.25
Search for Paper & articles	28	46.66	28	70	52	65
Citation chaining	35	58.33	24	60	39	43.75
General searches	59	98.33	36	95	78	97.5
E-mailing	60	100	40	100	80	100

Internet—papers and articles, Searching techniques, Citation chaining, General, open-ended searches.

Though the non-library Internet resources are strongly evident in post graduate students' research process, the university library remains a key element. While all post graduate students indicated that they use some type of library resources. All post graduate students said that the university library plays an important role (e.g., crucial, invaluable, significant, and huge) in their research. In many of the technical fields, authors publish their papers online and provide free access to up-to-date materials Methods of search vary from general, open-ended searches to specific, known searches.

Post Graduate students who know very little about their topic might start with a general search. At other times, students might use a known search. They might have the name of Website, a specific journal or a citation. A known search is easier, quicker and returns more relevant results. Known searches often begin with citation chaining, a method of following references. Students use these techniques on the open Web or on the university library intranet. The Internet facilitates an approach to information seeking as mentioned by nearly all (100%) of all post graduate students.

Using a relevant article or book, post graduate students track references, endnotes, footnotes and bibliographies. This method of gathering information was defined by Ellis (1989: 183) as chaining, the practice of '*following citation connections between materials'* Ellis described two forms of chaining: '*backward chaining—following up references or sources cited in material consulted and forward chaining—identifying citations to material consulted or known'* (Ellis 1989: 183). Participants describe it

like this: often begin with citation chaining, a method of following references. Students use these techniques on the open Web or on the university library intranet. The Internet facilitates an approach to information seeking as mentioned by nearly all (100%) of all post graduate students.

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Nearly all of all post graduate students (97%) use an open-ended keyword search usually with Google. The drawback to using a general search is that it results in a massive amount of information, much of which has questionable credibility and little relevance to the topic. Because students have to weed through a list of diverse results to find relevant materials, general searches can be time-consuming.

6.4 University library Online resources

All (100%) post graduate students use the university libraries' online services saying they are easily accessed, fast, convenient and time-saving.

Using both focused searches and open-ended searches, most post graduate students (100%) use the university library databases, though it varies somewhat among databases, preference for some over others. All post graduate students (100%) prefer the online journals and full text databases. They often search for research papers, technical papers, online articles, journal articles and conference proceedings. Postgraduate students also reported using other online resources such as indexes, reference materials (encyclopedias, dictionaries), music, images, user services and interlibrary loan to name a few.

Table 7. University Library online resources

Universities	Category of Subjects Help from Students	Students	% of subjects
GGS IP University	60	60	100
Jamia Millia Islamia	40	40	100
University of Delhi	80	80	100
Total	180	180	100

6.5 **University Library—print resources**

Although most post graduate students indicated a preference for online resources, a vast majority (82%) reported using the physical resources in the university library for books, textbooks and reference materials. This is consistent across all universities. Post Graduate students (58%) also come to the library for print journals, periodicals and magazines. Interestingly, use of the libraries' print materials is only slightly less

than use of their online and electronic full-text resources; however, many resources (especially older articles, papers and reports) are not yet available online. Students also prefer the printed book saying that reading books online is difficult.

The university library is important for DVDs, video-tapes and services (e.g., interlibrary loan). Some use the library to work, to use printers, or for entertainment and their own personal interest. Only a few (5%) reported seldom visiting the physical library, although they still use the libraries' online services. For those (14%) who say the library might not be the first place they go for resources, the library still plays a complementary or supporting role.

When needed resources are not available in the university libraries, post graduate students (58%) supplement by using the libraries' interlibrary loan services to borrow from other libraries. This varies across universities with students in the JMI (67%) using the interlibrary loan services the most and GGSIP (40%) the least.

Table 8. University Library print resources Other libraries

Universities	Category of Subjects UL print resources	Students	% of subjects
GGS IP University	60	49	81.66
Jamia Millia Islamia	40	32	80
University of Delhi	80	66	82.50
Total	180	147	82
Other Libraries	180	104	58
1. GGSIP	60	24	40
2. JMI	40	27	67
3. DU	80	53	66

6.6 Contributing factors

Factors, some outside of the university libraries' control, affect postgraduate students' use of libraries, library resources and library services. The factor most frequently cited by post graduate students (58%) was preference for convenience or the need to have information quickly. This varied across universities (46% in GGS IP University to 65% in Jamia Millia Islamia). Some avoid using local libraries or the university library (parking is difficult, takes too much time).

Table 9. Contributing factors

Universities	Category of Subjects Contributing factors	Students	% of subjects
GGS IP University	60	28	46
Jamia Millia Islamia	40	26	65
University of Delhi	80	50	62
Total	180	104	58

7. DISCUSSION AND RECOMMENDATION

Findings indicate that the information seeking behavior of postgraduate students is both random and organized. The random motions of information seeking are in effect during the planning stage, when choosing an area of focus, developing a search strategy, or general browsing for background information or a general idea of their field of research. The organized information seeking behavior includes regular planning sessions with a professor, planned search strategies and use of citation chaining. The information seeking behavior of postgraduate students is iterative and becomes more refined and organized as they become more knowledgeable in their field of research. The findings also show that information use varies among universities. As found in previous studies (Foster 2005, Kerins, *et al.* 2004, Hirsh and Dinkelacker 2004), people play a central role in graduate students' searching and finding information. They meet formally or casually throughout a post graduate student's process of inquiry. Professor who perform the most influential role, recommend and supply resources. They offer guidance, answer questions and provide ideas and direction. Peers and colleagues, meeting casually or in research groups, also extend recommendations, share resources and provide feedback. University library personnel provide key services and instruction in how to use and evaluate resources, design search strategies, learn about available resources and understand how to use the library and the library intranet, though we see differences among disciplines. The Internet plays a heavy role in post graduate students' search for information. The majority of students indicated a preference for information that is available online using university library resources and/or the wider Internet resources. When post graduate students use the Internet, searching for and obtaining information are simultaneous and enable them to working their offices or homes. All reported using Web resources (library and non-library) though the perceived importance of the Web varies among disciplines. The broad range of differences among technology and non-technology disciplines is most noticeable in Web use. With the exception of problems mentioned by a few, post graduate students value the Internet because of its powerful search functionality that enables searching enormous amount of information. They reported using Google for a general or known search for information.

Nearly half of all post graduate students use citation chaining to build a body of literature. Using relevant resources, students check references, bibliographies, endnotes and footnotes for other sources. They repeat their search using this new list of sources. Chaining enables students to search for a known citation and limits their need to use a general search that returns a huge amount of resources that are difficult and time-consuming to search. Post graduate students use both print and electronic resources that are available through the university libraries. They search university library databases and indexes, online journals and other online resources for articles, conference proceedings, reference materials, images and other materials. Post Graduate students also use the libraries' print resources, citing use of books, print journals and other materials. When they are unable to find the information they need using the university libraries, some students request items using the libraries' interlibrary loan service, use materials from local universities and colleges, or from public libraries.

The findings of this study have implications for academic libraries in relation to the information behavior of their students. Specifically, they affect university library instruction, availability of resources, and education of students and instructional leadership of academic staff. Post Graduate students rely on library personnel and academic staff for help in finding and using resources. This places librarians in a key position to affect students' and faculty information behavior. Not only can libraries evaluate and improve their own instructional services, but recognizing the influence of academic staff, they can also influence faculty's instructional services to students:

- Accessibility is a key factor that affects graduate students' choices of resources and services. Libraries need to strive to provide more electronic resources that are easily accessed within a user-friendly environment.
- Although graduate students may have considerable experience in the process of inquiry, they are still new to their current university library. Libraries need to create awareness among graduate students about the services and resources that are available and how to use them.
- The considerable increase in the number of available resources makes it even more difficult to find them. Libraries can provide navigational aids available at all times that describe the physical library and the electronic library resources.
- Post graduate students have varying abilities and experience related to finding and using resources. Libraries can provide instruction throughout the term for students at all levels, targeting students who are not familiar with American libraries.
- Libraries need not assume the entire burden of instruction but can take a lead and work with academic staff to help educate them as to the resources available and how to find them.

8. SUMMARY

This disciplinary study explored the information seeking behavior of post graduate management students. The findings indicate that people, especially academic staff, play a central role. Students rely heavily on the Internet as well as the university libraries' online resources for information, though still using the physical library for hard copy materials such as books, journals and papers. A few post graduate students mentioned influences such as difficulty locating information or the need for convenience and speed. This paper provides an overview of the complete study and findings as well as a comparison of the similarities and differences among disciplines. This study not only provides insight into post graduate students' information behavior, it also raises some questions. Further, exploration in a follow-up study that might decrease the need for long-term memory (think aloud protocols) or one that can generate more specific information (online structured survey) can add further depth to this study.

References

[1] Allen Catellier, J. R. (2012). Understanding the effects of emotion on information seeking and health behaviors: Improving communication to promote healthy lifestyles. State University of New York at Buffalo). ProQuest Dissertations and Theses, 239. Retrieved from http://search.proquest.com/docview/1029 861062?accountid=10461. (1029861062).

[2] Anderson, M. J. (2011). Women in leadership: A case study of executive women in the U.S. banking industry. University of Maryland University College). ProQuest Dissertations and Theses, , 153. Retrieved from http://search.proquest.com/docview/1015 380971?accountid=10461. (1015380971)..

[3] Association of Research Libraries (n.d.). *ARL Supplementary statistics 1999-2000*. Retrieved 2 December, 2005 from http://www.arl.org/stats/sup/sup00.pdf.

[4] Aubry, M. (2012). The relationship between customer relationship management, cultural characteristics, and the adoption of innovative golf products. Alliant International University). ProQuest Dissertations and Theses, , 144. Retrieved from http://search.proquest.com/docview/1039 154178?accountid=10461. (1039154178).

[5] Catalano, A. (2013). Patterns of graduate students' information seeking behavior: A meta-synthesis of the literature. *Journal of Documentation*, 69(2), 243-274. doi:http://dx.doi.org/10.1108/0022041131 1300066

[6] Chatterjee, J. (2011). The effect of capability-seeking investments on competition in the information technology services industry: Coevolution of capabilities and corporate scope. University of Pennsylvania). ProQuest Dissertations and Theses, , 174. Retrieved from http://search.proquest.com/docview/9293 05965?accountid=10461. (929305965).

[7] Chung, J. J. (2012). Examining the antecedents of using and writing electronic word of mouth among golf product consumers. Indiana University). ProQuest Dissertations and Theses, , 235. Retrieved from http://search.proquest.com/docview/1287 084232?accountid=10461. (1287084232).

[8] Chi, M. T. H. (1997). Quantifying qualitative analyses of verbal data: A practical guide. *The Journal of the Learning Sciences,* 6(3), 271- 315.

[9] Dervin, B. (1983). *An overview of sense-making research: concepts, methods, and results to date*. Paper presented at the annual meeting of the International Communications Association, Dallas, TX. Retrieved 14 April, 2005 from http://communication.sbs.ohio- tate.edu/ sensemaking/ art/ artabsdervin 83smoverview.html

[10] Dube, C. D. M. (2012). Supporting adults with intellectual disabilities who present with challenging behaviours: A cross-case analysis of staff perceptions of work and training. University of Manitoba (Canada)). ProQuest Dissertations

and Theses, , 237. Retrieved from http://search.proquest.com/docview/1318673221?accountid=10461. (1318673221).

[11] Ellis, D. (1989). A behavioural approach to information retrieval system design. *Journal of Documentation*, 45(3), 171-212.

[12] Fidzani, B. T. (1998). Information needs and information seeking behavior of graduate students at the University of Botswana. *Library Review,* 47(7), 329-340.

[13] Foster, A. (2004). A nonlinear model of information seeking behavior. *Journal of the American Society for the Information Science and Technology,* 55(3), 228-237.

[14] Friedlander, A. (2002). *Dimensions and use of scholarly information environment. Introduction to a dataset assembled by the Digital Library Federation and Outsell, Inc.* Washington, DC: Digital Library Federation and Council on Library and Information Resources. Retrieved 2 December, 2005 from http://www.clir.org/ pubs/reports/pub110/contents.html.

[15] Genuis, S. K. (2011). Making sense of evolving health information: Navigating uncertainty in everyday life. University of Alberta (Canada)). ProQuest Dissertations and Theses, , 378. Retrieved from http://search.proquest.com/docview/1269 794581?accountid=10461. (1269794581).

[16] Gibbard, E. A. (2012). An examination of the self-rated health of older adults to determine if the internet influences personal health. Capella University). ProQuest Dissertations and Theses, , 162. Retrieved from http://search.proquest.com/docview/1022 499267?accountid=10461. (1022499267).

[17] Hirsh, S. & Dinkelacker J. (2004). Seeking information in order to produce information: An empirical study at Hewlett Packard Labs. *Journal of the American Society for Information Science andTechnology,* 55(9), 807-817.

[18] Ho, D. Y. C. (2011). Towards a framework for collaborative information exchange: Exploring effects of time pressure and task difficulty on group cognition behaviors and implications for computer supported collaboration in healthcare. University of Maryland, Baltimore County). ProQuest Dissertations and Theses, , 261. Retrieved from http://search.proquest.com/docview/876182823?accountid=10461. (876182823).

[19] Houde, J. (2013). The influence of formal training on informal learning networks. North Carolina State University). ProQuest Dissertations and Theses, , 120. Retrieved from http://search.proquest.com/docview/1346189718?accountid=10461. (1346189718).

[20] Hruska, N. (2012). Effect of personality on the use and perceived utility of web-based health resources. Walden University). ProQuest Dissertations and Theses, , 157. Retrieved from http://search.proquest.com/docview/1037988242?accountid=10461. (1037988242).

[21] Iyer, A. K. (2011). Drug information- seeking behavior among healthcare professionals within the university of utah community clinics. The University of Utah). ProQuest Dissertations and Theses, , 72. Retrieved from

http://search.proquest.com/docview/8642 79825?accountid=10461. (864279825).

[22] Kelly, G. A. (1963). *The theory of personality: The psychology of personal constructs*. New York: Norton.

[23] Kerins, G., Madden, R., & Fulton, C. (2004). Information seeking and students studying for professional careers: The cases of engineering and law students in Ireland. *Information Research,* 10(1). Retrieved 2 December, 2005 from http:// InformationR.net/ ir/ 10-1/paper208.html.

[24] Kuhlthau, C. C. (1988b). Longitudinal case studies of the information search process ofusers in libraries. *Library and Information Science Research,* 10(3), 257-304.

[25] Kuhlthau, C. C. (1988c). Perceptions of the information search process in libraries: A study of changes from high school through college. *Information Processing and Management: an International Journal*, 24(4), 419-427.

[26] Kuhlthau, C. C. (1989). The information search process of high-middle-low achieving high school seniors. *School Library Media Quarterly,* 17(4), 224-228.

[27] Kuhlthau, C. C., George, M. W., Turock, B. J., & Belvin, R. J. (1990). Validating a model of the search process: A comparison of academic, public, and school library users. *Library and Information Science Research,* 12(1), 5-31.

[28] Kuhlthau, C. C. (1991). Inside the search process: Information seeking from the user's Perspective. *Journal of the American Society for Information Science*, 42(5), 361-371.

[29] Liu, C. (2012). Personalizing information retrieval using interaction behaviors in search sessions in different types of tasks. Rutgers The State University of New Jersey - New Brunswick). ProQuest Dissertations and Theses, , 213. Retrieved from http://search.proquest.com/docview/1284 157299?accountid=10461. (1284157299).

[30] Lyman, P.& Varian H.R. (2003). *How much information 2003*. Berkeley, CA: University of California at Berkeley, School of Information Management and Systems. Retrieved 2 December 2005 fromhttp://www.sims.berkeley.edu/how-much-info-2003.

[31] Lyons, C. A. (2011). Patient-physician electronic communication, as an adjunct in the care management of the outpatient with type 2 diabetes. D'Youville College). ProQuest Dissertations and Theses, , 130. Retrieved from http://search.proquest.com/docview/8987 96067?accountid=10461. (898796067).

[32] Marsh, H. L. (2012). Apes in the information age: An investigation of information management by orangutans (pongo abelii). York University (Canada)). ProQuest Dissertations and Theses, , 315. Retrieved from http://search.proquest.com/docview/1323 198421?accountid=10461. (1323198421).

[33] McCrary, K. L. (2012). An exploratory analysis of the health status of offenders in a community correctional facility and implications for risk management.

Spalding University). ProQuest Dissertations and Theses, , 151. Retrieved from http://search.proquest.com/docview/1069 267131?accountid=10461. (1069267131).

[34] Muhr, T. (1998). Atlas-ti. Berlin: Scientific Software Development.Online Computer Library Center. (2002). *How academic librarians can influence students' Web- basedinformation choices.* Dublin, OH: Online Computer Library Center. (OCLC White Paper on the Information Habits of College Students) Retrieved 2 December 2005 from http://www5.oclc.org/downloads/commun ity/informationhabits.pdf.

[35] Murphy, H. C., & de Jongh, H. (2011). Student perceptions of information system subject learning in hospitality management degree programmes. *International Journal of Contemporary Hospitality Management*, 23(3), 393-409. doi:http://dx.doi.org/10.1108/0959611111 1122550

[36] Pettigrew, K. E., Fidel, R., & Bruce, H. (2001). Conceptual frameworks in informationbehavior. In M. E. Williams (Ed), *Annual Review of Information Science & Technology*, 35(1), 43- 78.

[37] Polparsi, J. (2012). Global and information and communication technology (ICT) changes in library and information studies (LIS): Information seeking behaviors of LIS faculty members in thailand. The University of Wisconsin - Madison). ProQuest Dissertations and Theses, , 274. Retrieved from http://search.proquest.com/docview/1318 931159?accountid=10461. (1318931159).

[38] Ramnah, A. T., & Hashim, L. (2011). Information needs and information seeking behaviors of social science graduate students in malaysian public universities. *International Journal of Business and Social Science,* 2(4), n/a. Retrieved from http://search.proquest.com/docview/9045 23894?accountid=10461

[39] Sharkey, J. L. (2011). A quantitative study of military career transitions with emphasis in knowledge management. University of Phoenix). ProQuest Dissertations and Theses, , 217. Retrieved from http://search.proquest.com/docview/8743 84828?accountid=10461. (874384828).

[40] Steinerova, J. & Susol, J. (2005). Library users in human information behavior. *Online Information Review*, 29(2), 139-156.

[41] Watkins, R. T. (2011). Career ascension of african american males in the aeronautics industry. University of Phoenix). ProQuest Dissertations and Theses, , 159. Retrieved from http://search.proquest.com/docview/9110 23911?accountid=10461. (911023911).

[42] Wilson. T.D. (1999). Models in information behaviour research. *Journal of Documentation*, 55(2), 249-270. Retrieved 13 June, 2006 from http:// informationr.net/ tdw/publ/ papers/1999 JDoc.html Scholarly use of information… 23.

[43] Wimpy, J. E. (2011). The effects of brain gym on student behavior. Walden University). ProQuest Dissertations and Theses, , 177. Retrieved from

http://search.proquest.com/docview/8603 27563?accountid=10461. (860327563).

[44] Wine, S. L. (2011). The utility of the texas award for performance excellence criteria as a framework for assessing and improving performance excellence in the texas A&M foundation: A case study. Texas A&M University). ProQuest Dissertations and Theses, , 213. Retrieved from http://search.proquest.com/docview/9262 12463?accountid=10461. (926212463).

[45] Zimmer, J. C. (2011). Information seeking behavior: The effects of relationalism on the selection of information sources. Clemson University). ProQuest Dissertations and Theses, , 321. Retrieved from http://search.proquest.com/docview/8711 09325?accountid=10461. (871109325).