

## Information seeking behaviour and satisfaction of library users in digital era: A case study of Chhaju Ram Memorial Jat College, Hisar (HR)

Bhanu Partap

Assistant Librarian, Nehru Library, CCS Haryana Agriculture University, Hisar

**\*Corresponding Author:**

Email: bpartaps2005@gmail.com

---

### Abstract

The present study was conducted with a view to know the basic information needs, seeking behavior and satisfaction of library users of Chhaju Ram Memorial Jat College, Hisar (HR) in this digital era. Questionnaire method was used to collect the data. A well-structured questionnaire, a total 200 were distributed to the UG and PG students and 183 filled in questionnaires were received back with overall response rate @ 91.50%. In the present survey, an attempt has been made to explore the utility of different types of resources and user's needs. The study also aims to identify the level of satisfaction with the information resources, services and library staff cooperation offered by the library. Finally, concludes with some of the important suggestions which may suppose for the better user services and get ultimate satisfaction of the users.

**Keywords:** Information Seeking Behaviour, Users Studies, User Satisfaction, College Library, Library Resources & Services, ICT, Digital Environment.

---

### Introduction

Today is the age of information and communication technology and information is a key resource for the overall development of the person or a whole nation. Information is a basic resource, an integral part of human activity, and it plays a vital role in the scientific and technological progress of a country. Information plays a significant role in our personal as well as professional life. Information is growing day by day in different formats viz. primary, secondary and tertiary and available in different channels, formal and informal. Psacharopoulous (1982) discusses the necessity of information in the present age as "we can reorganize the educational system and redefine scientific research only with the help of information". Information plays a role of a decider in this era of cutting throat competition in every walk of life.

Mahapatra (2014) explained that, "library being a service institution primarily provides information to its users. The provision of information disseminated by the library has significant value for the end users. The satisfaction that the users derive by obtaining such information is of immense value for their academic and research career as well as the library itself. In order to satisfy the user groups in a library, it is essential to identify the information needs of users and to determine the strategy of seeking information in a library. Once the information requirement is established and seeking behavior is determined, the library is able to develop its collection, improve its organizational work and provide right dissemination of information services".

In this era of information explosion (in print as well as in digital form), peoples/users are confused about the access to right information, information needs, and various information sources. Again information access varies from person to person according to their needs.

Thus, information seeking is a kind of communication behavior, which surely be influenced by many factors. It is necessary to know the information needs, seeking behavior and information sources used by the user community, in order to plan and develop a need-based and relevant collection of information resources in print as well as in electronic resources in this changing world wide digital environment. Lot of studies has been carried out on information seeking behavior in past and or going in present. But maximum studies were limited to only explore the users' behavior towards their information seeking or habits. There should must be studies in which behavior will be correlated with users' satisfaction also.

### Information Seeking Behaviour

Information seeking behavior is the application of attitudes through set of actions in order to achieve desired information need. When attitudes and actions are collaborated the performance emerges. Based on the level of performance, the satisfaction level of the acquired information is determined.

Information seeking behavior refers to the way people search for and utilize information. The term was coined by Wilson in 1981, on the grounds that the then current 'information needs' was unhelpful as a basis for a research agenda, since 'need' could not be directly observed, while how people behaved in seeking information could be observed and investigated. (Wikipedia, 2016). Information Seeking Behavior is a broad term, which involves a set of action that an individual takes to express information needs, seek information, evaluate and select information, and finally uses this information to satisfy his/her information needs.

"The study of information seeking behavior can be dated back to the late 1940's. Since that time a large

number of studies have been carried out on the various aspects of information seeking behavior of individuals in different fields of specialization. Behavior of users towards seeking information depends upon the type of problem they undertake for research/study, availability of time, teaching requirements, information need and availability of sources of information. Wilson (2003) projected that "information behaviour covers all aspects of human information behaviour, whether active or passive. Information seeking behaviour is the act of actively seeking information in order to answer a specific query. Information searching behaviour is the behaviour which stems from the searcher interacting with the system in question. This system could be a technological one, such as the searcher interacting with a search engine, or a manual one, such as the searcher selecting which book is most pertinent to their query. Information use behaviour pertains to the searcher adopting the knowledge they sought" (Quoted in Gaba and Singh, 2015).

The digital world is changing human information behavior and process. Focused almost exclusively on information seeking and using, information receiving, a central modality of the process is generally overlooked. As information seeking continues to migrate to the Internet, and artificial intelligence continues to advance the analysis of user behavior on the Internet across a range of user interactions, information receiving moves to the heart of the process, as systems "learn" what users like, want and need, as well as their search habits (Giannini, 1998).

The micro and macro level researches are continued to progress on all disciplines that cause emergence of new concepts or subject areas. This creates necessity for understanding the users' information needs and information seeking behaviour. So, this phenomenon becomes instrumental for the conduct of continual research in the area of information seeking behavior.

The knowledge of information needs and information-seeking behavior of different users of the library is quite essential as it helps in the planning, implementation, and operation of library and information system and services. Here, in this study an attempt has been made to investigate the information needs, seeking behavior and satisfaction of users of Chhaju Ram Memorial Jat College, Hisar (HR) in this digital era.

### **Literature Review**

The study of review of literature is an important aspect of any academic research. The analysis of review of literature enables one to identify the past trends and area of research concentration in any particular branch of science. An attempt has been made to review the literature published on the information seeking behavior of the different kinds of users. Few related studies have been observed before conducting this study. Researcher has made an effort to access the existing literature on the

research topic and its related concepts through literature search. Researcher has also consulted several primary and secondary sources of information.

Rajan, Barathi and Sindhuja (2016) conducted a study on information seeking behavior of the faculty members of the higher educational institutions in Pondicherry and reported that 68.50% of the respondents were facing the problem due to library working hours which were not suitable and 47% of them were facing the problem due to some of the information materials was outdated. Apart from this, 34% of the respondents were facing the problem due to lack of support from library staff/lack of equipment/infrastructure in the library. A big majority of the faculty members among the institutions were using Internet particularly Google search engine and its e-mail feature widely using for communication purpose. Finally, based on findings researchers has given some suggestions for the improvement of the library viz. collection, infrastructure, services, library computerization and general purpose.

Ramesha and Yaranal (2015) conducted a survey on information need and information seeking behavior of library users of NRN Memorial National Law Library of NLSIU, Bangalore and revealed that 81% of the respondents use the library for "mix of several purposes". 83% of users responded that they will use the library to read newspapers and competitive exam related magazines. The researchers have also clear indication of invisible college and user dependence is more on informal modes of communication, than the formal. The researchers also advised that to promote the use of books and other information resources it must be have a functional building with provision for pleasant, natural and electrical light, soothing interior, good-looking furniture, comfortable chairs and other such facilities. It is further suggested that library staff should be attentive, cheerful, and careful for books and readers and should also render helping hand to the readers.

Sinha and Das (2015) found that majority of the respondents (57.21%) seeks information pertaining to employment and job opportunities and 67.44% rural population get their sufficient information from television. Most of the rural people of Barak Valley lack basic knowledge on how to use the information resources and services for solving their various purposes. The study equally discovered lack of awareness about the rural / public library by the rural people of Barak Valley. Although public library, television, radio, newspapers, community information centres, Krishi Bigyan Kendras were identified as the major sources used by respondents for acquiring information. Lack of awareness by the rural library about the extension services like seminar /workshop programs, lecture programs and arrange classes for illiterate under national literacy mission were seen as one of the major constraint of meeting their information needs. The researchers give some suggestions like there is a need to evaluate various

information sources to get their needed information by the rural people easily and without any discrimination.

Bansode & Nargide (2014) revealed that majority of the respondents are well aware and have a lot of knowledge about electronic information resources and most of the time faculty members use both i.e. subscribed as well as open source electronic information resources for locating the desired information. Majority of the respondents prefer to locate for full text as well as abstract form of information. Research, lecture preparations and publications are found to be the core purposes of accessing electronic information resources. The researchers also give some suggestions to overcome the hindrances in accessing the electronic information resources among the faculty members that the awareness programs, hands on training sessions, product demos, orientation on web searching and retrieval skills should be organized at regular intervals.

Bhanu Partap (2014) found that 60.54% respondents come to the library for using journals from CeRA database. Majority (51.70%) of the respondents reviewed articles from various information resources available in print as well as in electronic form for their desired information. Internet has been preferred by more than 70% of the respondents as their channel of information. About 44.21% respondents were satisfied with the adequacy of the e-journals (CeRA journals/database) services provided by the library while 38.09% respondents were quite satisfied with the proper collection of e-theses and finally concluded that majority of the agricultural scientists were satisfied with overall facilities and services provided by the Nehru Library of CCSHAU, Hisar.

Mahapatra (2014) conducted a study on information needs and seeking behaviour of physicians of Hi-Tech Medical College and Hospital, Bhubaneswar and found that physicians at the level of Junior Residents and Senior Residents are more using libraries compared to their senior counterparts. It is also found that discussions with the professional colleagues and participation in conference and seminar provide a lot of inspiration to the physicians so that they are involved in activities that generate information. The majority of physicians need information almost daily so as to improve their professionalism through the use of library than any other means, which is certainly a healthy sign. The study inferred that physicians under survey are not in good habit of using several information services cultivating current approach to information except borrowing books and photocopying materials of their interest for home-reading.

**CRM Jat College, Hisar: A Profile:** Chhaju Ram Memorial Jat College, Hisar (HR) is a premier institute of higher education affiliated with Kurukshetra University, Kurukshetra, established in 1967, named after a well-known philanthropist, Seth Chhaju Ram. The college is accredited with B+ grade from The

National Assessment and Accreditation Council (NAAC- An autonomous body and funded by University Grants Commission (UGC) of Govt. of India). The college offers more than 30 subjects in Arts, Commerce and Science faculties to about 5000 students at UG and PG level such as B.A., B.Com., B.Sc., B.C.A., B.M.C., B.T.M., PGDCA, PGDRS & GIS, M.A. (Hindi), M.A. (English), M.Sc. (Maths), M.Com. and some other add-on courses.

**The Profile of CRM Jat College Library:** Library of CRM Jat College, Hisar is very good and rich in collection and services which caters to the informational requirement of the students, teachers, and other staff of the Institution. The current state of the library (upto 30.06.2016) is as under:

**Table 1: Status of CRM Jat College library**

Resources	Collection
Books	63,899
Journals	05
Newspapers	16
Magazines	32
Encyclopaedias	1653
CD-ROMs	04
<b>Membership of the library</b>	
Teachers	70
Non-Teachers	44
Students	All the students have to take the compulsory membership of the library.
Special Members	Not specified

Source: Survey

**Objectives of the Study:** The main objective of the study is to find out the information needs, seeking behavior and satisfaction of library users of Chhaju Ram Memorial Jat College, Hisar (HR). The present study has following aims and objectives as enunciated below:

- To ascertain information needs, seeking behavior of the UG and PG Students;
- To determine how frequently the students make use of different categories of information sources and services in the library;
- To know the purpose of usage of different categories of information sources and services in the library;
- To identify the type of information resources used by the students in the library;
- To know about the medium of seeking information;
- To find out the adequacy level of print and electronic collection in the library;
- To examine the information seeking strategy by the students;
- To assess the level of satisfaction in using the collection and services by the students and to suggest suitable solutions;

- To find out the problems in getting information faced by these while accessing the sources; and
- To offer suggestions and recommendations pertaining to the study.

**Scope and Limitation of the Study:** The present study is a form of user study designed to bring within its confines only UG and PG students studying in Chhaju Ram Memorial Jat College, Hisar (HR), their information requirements, information-seeking behavior, their reading habits and the existing library facilities available.

Thus, the scope of the study is limited to the UG and PG students only studying in different courses like B.A., B.Sc., B.Com., M.A., M.Sc., and M.Com.

**Methodology:** Research method is the foundation of any research project carried out for a systematic study of the problem and hence for this study, the following methodology has been adopted. The present study was conducted using survey method. A structured questionnaire was designed for the purpose of data collection and the copies of the same were distributed personally on randomly basis to the UG and PG students of Chhaju Ram Memorial Jat College, Hisar (HR) in the months of August-September, 2016. A total 200 questionnaires were distributed; out of which 183 questionnaires were received back (91.50 %). On the basis of filled up questionnaire the data has been analyzed and tabulated. All the results have been presented in the form of tables. For the data analysis percentage technique has been adopted.

### Analysis and Interpretation of Data:

**Table 2: Distribution of respondents**

Respondents	Questionnaire Distributed		Questionnaire Received		Response (%)
	Male	Female	Male	Female	
UG Students	80	50	76	40	116 (63.39%)
PG Students	37	33	35	32	67 (36.61%)
Total	200		183		91.50%

Table 2 shows the population of the survey and comprises with UG and PG students. It is clear from the above table that total 200 questionnaires were distributed to the UG and PG students on randomly basis and 183 questionnaires were received back. Out of 183 respondents, 116 were UG students and 67 were PG students. Gender wise distribution of the respondents is also shown in the above table. Overall response rate is 91.50%.

**Table 3: Frequency of visit the library**

Frequency	Respondents	Response (%)
Daily	37	20.21
Two to Three Times a Week	32	17.48
Once in a Week	29	15.88
Once in a Fortnight	47	25.69
Once in a Month	22	12.02
Occasionally	16	8.75
Total	183	100

Table 3 highlights that majority of the respondents, i.e. 25.69% were using the library once in a fortnight followed by 20.21% daily, 17.48% two to three times a week, and 15.88% respondents were using the library once in a week respectively.

Few respondents (12.02%) visit the library once in a month and 8.75% respondents using the library occasionally or when they needed.

**Table 4: Purpose of information seeking**

Purposes	Respondents (n=183)	Response (%)
General Awareness	146	79.78
Keeping Up-to Date	36	19.67
Study Material	157	85.80
Preparing Class Notes	139	75.95
Preparing Assignments	78	42.63
Participating in Declamation Contest	26	14.20
Preparing Projects & PPTs	91	49.73
Seminar & Conference	48	26.23

Table 4 makes it quite clear that a big majority of the respondents, i.e. 85.80% were using the library to consult or borrow the study material related to their course curriculum whereas 79.78% respondent's main purpose for using the library is general awareness or to prepare their class notes. Nearly 50% respondents using the library for preparing projects / project reports or MS-Power Point Presentations followed by preparing assignments (42.63%), seminar & conference (26.23%), keep update themselves (19.67%), and to prepare themselves for participating in declamation contest (14.20%) respectively.

**Table 5: Awareness of electronic information resources**

Awareness	Respondents	Response (%)
Aware	144	78.69
Not Aware	31	16.94
No-Response	8	4.37
Total	183	100

Table 5 reveals the awareness of electronic information resources among the students. It is found that majority of the respondents, i.e. 78.69% responded that they are much aware about the electronic information resources and 16.94% respondents were shown unawareness about the electronic information resources.

**Table 6: Type of information sources used**

Information Sources	Respondents (n=183)	Response (%)
Books	183	100
Journals	72	39.34
Magazines	92	50.27
Newspapers	98	53.55
Encyclopedias	23	12.56
Reference Resources	67	36.61
Open Online Resources (e-resources)	46	25.13
Internet	157	85.80

Table 6 describes the various types of information sources use by the respondents to seek their desired information. It is clear from the above table that all the respondents were using and consulting the books. Internet is using by more than 85% respondents for getting various types of information desired by them. More than half of the respondents were using newspapers and magazines to get information of their educational or general type of nature followed by journals (39.34%), reference sources (36.61%), open online resources (25.13%) and encyclopedias (12.56%) were using for basic or background information respectively.

**Table 7: Preference of information channels**

Channels of Information Sources	Respondents (n=183)	Response (%)
Books	116	63.38
Journals	44	24.04
Encyclopaedias	17	09.28
Internet	126	68.85
Class Teachers	89	48.63
Fellow Students	72	39.34
Class Room Teaching	110	60.10
Library Staff	32	17.48

Table 7 shows the various information channels preferred by the respondents to get their desired information. It is found that nearly 68.85% of the respondents were given the preference to the Internet for getting their desired information and 63.38% preferred books as their main information channel. Nearly 60.10% of the respondents said that they were getting their desired information from their class room teaching followed by class teachers (48.63%), fellow students (39.34%), journals (24.04%) and encyclopedias (09.28%) respectively. Interestingly, 17.48% respondents also said that they would get their desired information easily with the help of good and efficient library staff.

**Table 8: Problems faced while seeking information**

Problems	Respondents (n=183)	Response (%)
Library Timings	96	52.45
Incomplete Information Material	62	33.88
Unaware of Updated Information Technology	80	43.71
Lack of Cooperation of Library Staff	17	9.28
Lack of Knowledge about Library Services	53	28.96
Lack of Knowledge about Library Resources	70	38.25
Resources are not Available in Sufficient Numbers	74	40.44
Lack of Time	39	21.32

Table 8 reveals the problems faced by the respondents while seeking or searching to their desired information. It is clear from the above table that majority of the respondents (52.45%) were not happy with the timings of the library and want to keep open for more hours whereas 43.71% of the respondents faces the problem of unawareness of updated information technology. 38.25% said they have lack of proper knowledge about various information resources available in the library followed by resources are not available in sufficient numbers as desired (40.44%), incomplete information material (33.88%), lack of knowledge about library services provided (28.96%) respectively. Few respondents, i.e. 21.32% said that they have little bit of time to visit the library and make use of information resources properly because of schedule of regular classes. Least number of respondents (9.28%) responded that they are facing the problem while searching desired information because of lack of cooperation of library staff.

**Table 9: Satisfaction level towards adequacy of library collection**

Library Collection	Very Much Adequate	Adequate	Fairly Adequate	Inadequate	Very Much Inadequate
Books	30 (16.40%)	79 (43.16%)	45 (24.60%)	21 (11.47%)	08 (4.37%)
Journals	14 (7.65%)	42 (22.96%)	81 (44.26%)	33 (18.03%)	13 (7.10%)
Newspapers & Magazines	21 (11.47%)	79 (43.18%)	43 (23.50%)	28 (15.30%)	12 (6.55%)
Reference Sources	18 (9.84%)	67 (36.62%)	61 (33.33%)	23 (12.56%)	14 (7.65%)
e-Resources	-	09 (4.92%)	14 (7.65%)	109 (59.57%)	51 (27.86%)

Table 9 highlights the satisfaction levels of the respondents towards adequacy of library collection. It is observed that most of the respondents (Near about 60%) were quite satisfied with the adequacy of books in the library, while near about 30% of the respondents were shown their satisfaction with the adequate collection of journals. However, more than 25% were unsatisfied towards the journal collection.

More than half of the respondents (54.65%) were happy with the collection of newspapers and magazines in the college library while 23.50% were moderately satisfied. 46.46% of the respondents were satisfied with the adequacy of collection of reference sources. Interestingly, a big majority of the respondents (87.43%) were unsatisfied with the collection of e-resources and suggested that e-resources should be subscribed / purchased due to digital era and easy to search and use.

**Table 10: Satisfaction level towards adequacy of ICT based resources and facilities**

ICT Infrastructure	Very Much Adequate	Adequate	Fairly Adequate	Inadequate	Very Much Inadequate
Computer Facility	-	-	-	-	77
Internet	-	-	-	-	98
E-Books	-	-	-	-	-
E-Journals	-	-	-	-	-
CD-ROM Databases	-	-	-	-	-
OPAC	-	-	-	-	-
Printout	-	-	-	-	-

Respondents were also asked about to show their satisfaction level about the adequacy of ICT based resources and facilities provided by the library. Table 10 describes the very much un-satisfaction level among the respondents towards the ICT based resources and facilities. None of the respondents were satisfied with the adequacy of ICT based resources and facilities.

**Table 11: Overall satisfaction with library services, resources and helpfulness of library staff**

Response	UG Students (n=116)	PG Students (n=67)	Total Response (n=183)
Fully Satisfied	42 (36.20%)	18 (26.87%)	60 (32.79%)
Partially Satisfied	55 (47.42%)	39 (58.20%)	94 (51.37%)
Dissatisfied	19 (16.38%)	10 (14.93%)	29 (15.84%)

Table 11 shows the overall satisfaction level with the library services, resources and helpfulness of library staff among the respondents. The researchers found that more than half of the respondents (51.37%) were partially satisfied and 32.79% were fully satisfied with the library services, information resources and helpfulness of library staff. However, 15.84% of the respondents were shown their dissatisfaction towards the same.

### Major Findings:

From the data analysis the following major findings may be drawn:

- 25.69% respondents use the library once in a fortnight and only 20.21% of the respondents use the library daily.
- Majority of the respondents (85.80%) use the library to consult or borrow the study material and nearly

80% respondents use the library for general awareness or to prepare class notes.

- Nearly 79% of the respondents are aware about the e-resources.
- All the respondents (100%) use and consult the books while 85.80% respondents use the Internet for getting their desired information.

- More than 60% respondents get their desired information from their class room teaching.
- Majority of the respondents (52.45%) are unsatisfied with the timings of the library.
- 43.71% respondents are unaware about updated information technology and its applications.
- Nearly 60% respondents are quite satisfied with the adequacy of books in the library, while about 30% respondents are satisfied with the adequate collection of journals.
- 51.37% respondents are partially satisfied and 32.79% are fully satisfied with the library services, information resources and helpfulness of library staff.
- No respondents are satisfied with the ICT based infrastructure, resources and services in the library as well as the college.

### Suggestions

On the basis of the findings of the study following suggestions may be given:

- Library should upgrade ICT infrastructure, resources and services regularly.
- There should be proper collection development policy followed by the college/library management.
- Electronic information resources must be purchased / subscribed regularly.
- Library staff must be well-trained in handling modern gadgets of information technology so as to guide and assist the students as well as teachers in using e-resources and other information resources whenever the need arises.
- There should be regular training / orientation programmes on information search strategy, how to use reference resources and other resources for the students for increased use of e-resources.
- Library should organize information literacy programmes for the users.
- Proper management training should be organized for library staff, so that they can improve their helpfulness and cooperation and less heavy working stress in this challenging digital era.
- Motivation and recognition of the work of library staff must be given, so that they can involve their self in better information services.

### Conclusion

The study has brought out some major facts and figures in terms of information needs, seeking behavior, utilization library resources and services offered by the library of Chhaju Ram Memorial Jat College, Hisar (HR). Information needs are diverse and they rely heavily on books and other primary source of information, so the lack of availability of required material in libraries is a major problem in information seeking. Library and information professionals can analyze the findings of the study and design, develop, and introduce new library and information services for

them. Library and information professionals should conduct further studies on user information needs, seeking behavior and user satisfaction to provide more suitable resources and services to different users groups in this digital era.

### References

1. Bansode, S.Y. & Nargide, B. (2014). Information seeking behavior of B-School faculty members in digital environment: A case study. *International Journal of Information Dissemination and Technology*, 4(2),130-134.
2. Bhanu Partap (2014). Approaches to information seeking by agricultural scientists of Chaudhary Charan Singh Haryana Agricultural University, Hisar, India. *Journal of Library & Information Communication Technology*,3(1),1-13.
3. Gaba, Rajeev Kumar & Mehar Singh (2015). Information searching habits of faculty members of engineering colleges under the Haryana and Punjab Universities: A Survey. *e-Library Science Research Journal*, 3(8).
4. Giannini, Tula (1998). Information Receiving: A primary mode of the information process. ASIS Annual Conference. Pittsburgh.
5. [http://shodhganga.inflibnet.ac.in/bitstream/10603/22103/8/08\\_chapter%203.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/22103/8/08_chapter%203.pdf)
6. <http://www.crmjatcollege.com/>
7. Mahapatra, R. K. (2014). Information needs and seeking behaviour of physicians of Hi-Tech Medical College and Hospital, Bhubaneswar: A study. *International Journal of Information Dissemination and Technology*, 4(4),312-317.
8. Prospectus 2016-17. Chhaju Ram Memorial Jat College, Hisar.
9. Psacharopoulous, G. (1982). Information: An essential factor in education planning and policy. *Comparative Educational Review*, 26(2),322.
10. Rajan, V.R., Barathi, S. and Sindhuja, D. (2016). A study on information seeking behavior of the faculty members of the higher educational institutions in Pondicherry. *International Journal of Research in Library Science*, 2(2):77-90.
11. Ramesha & Yaranal, Mahesh A. (2015). A survey on information need and information seeking behavior of library users of NRN Memorial National Law Library of NLSIU, Bangalore. In 60<sup>th</sup> ILA International conference proceedings "Embedded Librarianship and Technological Challenges of the Digital Age" edited by Ramesha and others, 141-149.
12. Sinha, Manoj Kumar and Das, Pulak (2015). A study on information needs and information seeking behavior of rural population with special reference to Barak Valley, South Assam (North East India): A survey. In 60<sup>th</sup> ILA International conference proceedings "Embedded Librarianship and Technological Challenges of the Digital Age" edited by Ramesha and others, 259-268.
13. Wikipedia (2016). <https://en.wikipedia.org/>.
14. Wilson, T.D. (2006). On user studies and information needs. *Journal of Documentation*. 37(1):3-15.