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Contemporary Trends of Information Seeking Behaviour of Research Scholars of Gujarat University: A Case study

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ABSTRACT

The study inspects the Information needs and seeking behavior of research scholars of Gujarat University in Social science and Linguistics disciplines. Sample constituted the population of total 80 research scholars from social science and linguistic disciplines. The study conducted through survey methodology with questionnaire developed basis on the core compounds of information seeking behaviour and collected the research data from the registered research scholars of Gujarat University. The results revealed that female little dominated in research work and the major purpose of seeking behaviour is for research work, knowledge enrichment and writing research and conference papers. Research scholars desired to use Gujarat university central library and their department library to pursue information. Study shows that research scholars have initiated to use various e-resources and internet based services but still they are not aware about remote login and File Transfer Protocol (FTP). Majority of research scholar's consults print resources mainly reference collection, subject books and periodicals followed by digital resources for their on-going research work. Research scholars desired to discuss with subject experts and participates workshops and conferences on their areas for updating with current trends. Study also explored the difficulty faced by the scholars in information seeking activities. Study found that majority of scholars reported problem to access e-resources of university library and due to the information overload facing difficulty to identify appropriated sources. Study concluded with the recommendations to the university library authority to understand the research scholar's needs and reframe the library management system based on the social scientists requirement and provide batter quality library services to this important community.

Keywords: Information Needs, Information Seeking Behaviour, Library Resources, Gujarat University

INTRODUCTION

In recent time information is considered as super power and the entire globe used information in their day to day social, cultural and economic & business life. We have accepted information as a commodity or ultimate asset. Today we evaluate persons on the richness of their wealth of information and knowledge not on their tangible assets. In this contemporary period, individuals should know their information needs and how they will get information by applying information seeking behaviour through exploring various available sources of information. The extremely trained person will get the information by approaching seeking behaviour methodology and they access print and digital resources, approach to library and information centre, access to various knowledge databases, visit to respective research centre based on the information requirement and the discipline of subject matter. Those who are lacking in proficiency will face difficulty to get the required information. . Human beings have constantly hunted information, for their persistence or for professional tasks. Information-seeking is a commotion vital to human existence and human information behaviour is emerging as a significant element of information studies. **(Spink and Currier 2006; Rowley and Hartley 2008; Sonnenwald and Iivonen 1999)**

Chen and Hernon distinct information as "Completely impression, fact, data, knowledge and creative works of mind which are interconnected formally and or casually in any kind of presentation is called as information." **(Chen and Harnon, 1982).** As per the J S Shera's opinion, information types are classified in six types mainly: Policy information, Stimulatory information, Procedural information, Empirical information, Directive information and Conceptual information. **(Shera, J. H. 1972)** Information need is very vital part in the process of seeking behaviour. We must understand first what is our core requirement or needs. In absence of understanding our need sometimes our seeking behaviour progression affected and will not get the right information to serve our purposes. Information seeking behaviour is fully depends on information needs and lack of understanding of information need will create dissatisfaction and users purpose may not solve. An information need ascends when an individual notices a difficult condition or information gap, and inner knowledge and beliefs, and model of the setting miscarry to advise a path near the agreement of individuals goals **(Case 2007)** Accordingly **Krikelas (1983)** Information-seeking behaviour means every movement of an individual that is commenced to ascertain a message that contents a perceived requirement, means information seeking start when individual recognises that the existing state of possessed knowledge is fewer than that desired to deal with certain subject. **Wilson (2000)** pointed out that information seeking activities a person may involve in when finding their specific needs for information searching for such information in any technique and using that information. **Ocholla (1999)** emphasis that information seeking behaviour activity is meticulously interrelated to user studies, marketplace analysis, user assessment, information and civic analysis and assessment of information needs that extensively pragmatic in the study of user needs in library and information science. **Marchionini (1995)** defined information seeking "a process in which, human decisively engage in order to change their state of knowledge."

Academic libraries are providing various types of services to its users. The role of university library is to support academic and research activity of their parent university in terms of building sound curricular, co-curricular and extra-curricular collection of information resources for their patrons. In contemporary period ICT-Information and Communication Technology has played a vital role for information processing, preservation and retrieval. In this regard, library must prepare their users to use such technology by providing comprehensive user education programs which will be benefited to users for information needs and seeking behaviour in this digital epoch Now a days, users required timely information not only from print resources but they seek information from electronic and digital resources by accessing online databases, e-books and e-journals and therefore academic library need to study the information seeking behaviour of library users in electronic information environment. **(Herman Eti 2001; Rowlands Ian et al. 2008; Nicholas David et al. 2009; Wickramanayake 2010; Bhatt 2014; and Zerehsaz 2017)** Research scholar must built their own information resource collection with help of visiting university library, subject research centre, using open sources knowledge databases, using World Wide Web, meeting subject experts and take update on the subject disciplines. In general, research scholar need to apply collective and combined approach to seek relevant information **(Talja 2002)**

DIEMNSIONS OF INFORMATION SEEKING BEHAIOUR MODELS

Elli's (1989, 1993) proposed behaviour model of information retrieval for information seeking pattern of researcher of social science discipline. Ellis model emphasis on total eight generic characteristics mainly:

Starting: An activity for initial search for information as starting point of research cycle

Chaining: To follow the chain citation and reference connection between information materials identified during starting point. Chaining can be backward or forward

Browsing: Potential interest area search in semi-directed way, scanning includes table of contents, abstract and reference of searched materials etc.

Differentiating: Scrutiny of eminence information from obtained sources

Monitoring: Monitor specific resources with reference to Upgrdation of subject filed like core subject journals, conference proceedings, books, library catalogue etc.

Extracting: analytically work with precise sources to identify need base materials

Verifying: Checking the accuracy of information

Ending: Tying up loose ends through a final search.

This model deals overall visions of information seeking behaviour and focused on the process of information retrieval form user's viewpoint later on **Wilson (1999)** suggested that, even if information patterns categorized by Ellis did not certainly follow in an explicit order, some features were supplementary reliant on each other than othersand. **Meho and Tibbo (2003)** Revisited Ellis's work with intention to upgraded this model in digital or information technology era with worked on different countries with different social science researchers at international level and confirmed Ellis's Model with major additional three features mainly: accessing,

networking, and information managing. **Kuhlthau (1991)** framed Information Search Process called ISP which explained this model in six stages: Initiation, Selection, Exploration, Formulation, Collection and Presentation. This model is concomitant with feelings; thoughts and actions. Kuhlthau used Anomalous state of knowledge **(Belkin 1980),** Phases of construction **(Kelly 1963)** and levels of information needs as theoretical bases **(Taylor 1968)** and developed this model. Kuhlthau model used by many researchers due to incorporated cognitive issue and feeling in search of information. **(Hyldegard 2006; Whitmire 2003) Wilson (1999)** suggested problem solving framework models. The models focused the direction of information behavior research from "system-centric" to "person-centric" inquiries. He also introduced "observations to be the "root" method of data collection. The major limitation is primarily focus on the general processes of information seeking, and not on the context of the information search or the types of information available **(Al-Suqri and Al-Aufi, 2015) Vakkari (2001)** explained task based process of information retrieval. The process comprised six stages in three elementary classes mainly: Pre-focus class, Focus formulation and Post-focus class. It is endeavoured to upgrade Kuhlthau's model of IR and however it is observed that still user's experience is missing in this model. **Foster (2004)** offered Non-linear information seeking model comprise in seven major activities: Scope Examination, Diversity, Interacting, Keyword searching, Surfing, Observing and Excerpt exchanging. In his study two characteristics of Ellis's model **(Ellis 1989)** confirmed specially monitoring and chaining and moderately accepted **Meho and Tibbo model (2003)** but precluded problem solving framework proposed by **Wilson (1999).** In overall review of dimensions of information seeking models of Ellis's, Meho and Tibbo, Foster provides inclusive picture of theory of information seeking behavior of entities in academic setting.

REVIEW OF RELATED LITERATURE

Significant research has been done in the area of information needs and information seeking behavior of different user groups in academic library environment. This literature review is not envisioned to cover all of the works on information-seeking behavior; whereas it focus the reasonable research work published at international level on information-seeking behavior of academic user groups, information needs of academic researchers' opinions of university libraries.

Pareekh and Rana (2013) examined the library use pattern and information seeking behaviour of research scholars of Banasthali University, India. Result pointed out that major research scholars used library for access reference sources (35 per cent) and internet access (30 per cent) Scholars preferred to give priority for accessing thesis and dissertation followed by e-resources and inter library loan services. The purpose of Information seeking behavior was latest update on their areas (72 per cent) and research purpose (68 per cent). Research scholar search maximum their requirement thorough online public access catalogue (OPAC) (71 per cent), maximum research scholars given feedback that library is lacking in updating latest resources and library must enhanced their reference section and improve collection development policy.

Wickramanayake (2010) evaluated information seeking behaviour of Sri Lankan Universities. The results pointed out that commerce and management faculty were more focused on research and had sound knowledge to access information and due to fewer resources they were unable (56 per cent) to update current trends in their disciplines. Further he suggested that library need to inform faculty when new resources added and required to improve and prompt intern library

loan service. **Naushad and Nisha, (2011)** Reported that maximum (60 per cent) of research scholars used e-journals every week for research purpose at university of Delhi, and they referred print journals.(45 Per cent) Most of the research scholar used e-journals for research purpose (56 per cent) Major research scholar used key word search strategy to find articles. They suggested that library need to take remedial action to slow downloading PDF files due to law configured work stations and poor internet connectivity. Major research scholars were aware about the e-journals consortia of University Grant Commission of India. **Sheeja (2010)** explored the information seeking behaviour of research scholars of science and social science disciplines of total four university libraries at Kerala, India. In finding she reported that there are significant differences in both disciplines in print and online database access. Study found that research scholars (38 Per cent) expressed that library is effective in keep updated them with latest resources. In both the disciplines, research scholars (29 Per cent) felt that adequate e-journals available in the library and found less conference proceedings (31 per cent) in library. Study concluded that e-resources are most useful in research work. **Bhatt (2014)** examined the information seeking behavior of faculty in law discipline. Result pointed out that most of the faculty information seeking behavior is towards classroom teaching purpose (68 per cent) followed by for knowledge enhancement (12.5 per cent) and research purpose (12.4 per cent). Major faculty used Hein Online legal database and west law India online database for teaching and research purposes. Almost all faculty expressed that internet is useful and important for their day to day professional work. He pointed out in the study that faculties are using wide ranges of information resources on law in digital environment and library is satisfied user's needs. **Kehinde et al (2016)** evaluated information need and seeking behaviour at University of Ilorin, Nigeria. Data collected with structured questionnaire distributed to the post graduate students of dept. of communication and information science students. Results pointed out that users rated internet and discussion with colleague student on top priority and they referred books based on the reputation and trustworthiness of authors. Overall library users satisfied with library resources. **Rowlands et al (2008)** discussed the information need and behaviour of researchers in the digital era. Study gathered information and data from various methods mainly from British Library and JISC website. Result indicated that 89 per cent of users seek information from search engine and also approached digital resources and open access resources. **Rimmer Jon et al (2006)** examined needs and behaviours of scholars in humanities discipline. The study collected data through open ended interview methods from humanities scholars located at different locations like London, Cambridge, Sussex, Wales, Sydney, New Zeland and Bangkok. Finding of the study were useful to library for building electronic and digital resources for humanities scholars. **Fidzani, B. T. (1998)** reported the results of information seeking behavior and use of library resources of graduate students of university of Botswana. Library users preferred to read journals and reference books as most popular resources. Further he recommended that library orientation will more impactful to increase awareness of library resources and marketing of library services. **Marouf and Anwar (2010)** explored information seeking behavior of faculty of social science at Kuwait University. Study found that major faculty used more informal sources mainly conference, discussion with subject experts and colleagues then formal sources. Technical reports, manuscripts and primary information materials were less used by them. Faculty expresses their opinion about adding more quality resources and staff and subscription of international resources. **Singh et al (2015)** investigated information seeking behaviour and needs of foreign students of post graduate, M.Phil. and Ph.D.

scholars of University of Delhi, India. They used structured questionnaire and collected the data. Results reflected that most of the research scholars need information for writing research papers and accessed internet based sources like e-books, e-journals, online databases, e-thesis and dissertation. Study recommended that library should provide effective information literacy program and remote login for maximum utilization of library resources and also improve physical facilities of library. **Loa and Chu (2015)** conducted empirical study on seeking behaviour of library users at Hong Kong Design Institute. They gathered data through online survey questionnaire from total 327 library users in art and design discipline. Study revealed that major students seek information through internet followed by social networking and traditional library resources. Study recommended to provide career counselling and interaction with core subject experts and filed practitioner to students.

Furthermost of the above stated studies admits the importance of evaluation of information needs and seeking behavior of library users in different disciplines. Research scholars need vast ranges of information resources for their research work especially in process of literature review and comparing their proposed study with previous research and library play a vigorous role to satisfy their information needs in digital era and this study will helpful to university authority to develop their information resources, library system and build user centric library policy.

GUL: GUJARAT UNIVERSITY LIBRARY - A BRIEF OVERVIEW

GUL-Gujarat University Library is the largest and oldest library in the Gujarat state. Library established since university inception in year 1951 and migrated to new building in 1967. Library has vast collection of total 3,60,000+ books, 250+ print journals, 17,000+ Dissertation and thesis, 15,000+e-journals, 11,600+e-books and 3000+ Audio visual academic materials and subscription of digital resources from reputed publishers in almost all major disciplines. Library collection development focused in science, social science and humanities disciplines and provides traditional and modern services to its readers. Library has sound infrastructure with seating capacity of 600+ users with work stations. Library used optimal ICT tools in operations including library management software, software for content development and digitisation, using RFID in library, process of developing institutional repository. Library has networked with INFLIBNET for automation and digitization of doctoral dissertation. Department libraries are networked with central library and also providing extension reading room facilities in different locations within the city for remote users. Professional motivated library staff providing services to its major users: Graduate, Post-Graduate, research scholars and faculty members of the university. Library also provides institutional membership for external community. Library works on its core vision for support research productivity with use of state-of-the-art technology in services and resources for scholarly academic civic and work as central knowledge hub of university. Gujarat University offered doctoral, post-graduate, graduate, diploma and certificate courses in various disciplines and produced numerous personalities like current prime minister of India Mr. Narendra Modi and many more in different disciplines from political science to Entrepreneurship and social science to science & technology. (Source: http://www.gujaratuniversity.org.in/web/Weblib.asp)

RESEARCH QUESTIONS

RQ-1 To evaluate the frequency to library visit of research scholars

RQ-2 To identify the information needs and purpose seeking behaviour of the research scholars

RQ-3 To understand the preferences of information usage and time devoted by research scholars

RQ-4 To explore the preferences of use of e-resources and internet based services by research scholars

RQ-5 To know the types of information sources need and accessed by research scholar

RQ-6 To discover the method and sources used for current awareness by research scholars

RQ-7 To scrutinize the common problem faced by research scholars to access library information resources

RESEARCH METHODLOGY

In most of research taken by the previous researchers has applied survey method through questionnaire. For collection of primary data, self-administered questionnaire developed based on in-depth study of compounds of information seeking behaviour. Before collecting data, researchers has discussed with subject experts and take inputs about reliability and verified the coverage and contents of the subject. The instrument divided in to major seven sections which concealed core compounds of information need and seeking behaviour. The format of the instrument is close-ended questions on multiple choices with Likert scale used. Researcher has also conducted informal discussion with research scholars of social science and Linguistic disciplines and taken view of information needs and seeking behaviour and their perception about library. This will help as supplementary data to questionnaire instrument and aid to fetch precision.

The population of the study comprised of total 105 research scholars (Ph.D. Students). research scholar are doing their research work in Social Science and Linguistic which contents Sociology, Psychology, History, Economic, Political Science, Education, Social work & Labour welfare and in Linguistic it covered English, Hindi, Gujarati, Sanskrit, Urdu & Persian subjects. Print questionnaires distributed to the research scholars and collected the primary data in the final week of February 2018. Total 105 questionnaires distributed to research scholars using stratified random sampling techniques and from these 85 were responded and taken returned with response rate of 81 per cent. 5 questionnaires were rejected due to the incomplete information and finally total 80 questionnaires were considered for the study. After collected data researchers has used MS Excel for computing data for investigation.

TRETEMENT OF DATA

Analysis of Demographic Characteristics of the Respondents:

Total 80 questionnaires returned from the scholars, from this majority of 50 respondents (62.5 per cent) were female and 30 respondents (37.5 per cent) were male. With regards to analysis of age it was found that, highest 30 respondents (37.5) were between ages of 31 to 35 years, followed by 24 respondents (30 per cent) were between 26 to 30 years, 15 respondents (18.75 per cent) were between 36 to 40 years 5 respondents (6.25 per cent) were under up to 25 years, 5

respondents (6.25 per cent) were 41-45 years and 1 respondent (1.25 per cent) were above 46 years old. Discipline wise reviewed reflected that majority of 42 respondents (52.5 per cent) were from linguistics disciplines and 38 respondents (47.5 per cent) were from social science disciplines. Total 27 respondents (33.75 per cent) were qualified UGC-NET (University Grants Commission -National Level Test) and SET examination (State Level Eligibility Test).

RQ-1 To evaluate the frequency to library visit of research scholars

Research scholars were asked to respond how frequently they visit the Gujarat University Library and data has presented at Table 1.

Table 1 Distribution of the frequency of visit of research scholars to the Gujarat University Library

Frequency of Visit	N	Percentage (%)
Daily	34	42.5
Weekly	24	30.0
Twice in Week	14	17.5
Occasionally	08	10.0
TOTAL:	**80**	**100**

It is evident from Table 1 that maximum of 42.5 per cent research scholars used the library on daily basis followed by 30 per cent weekly basis, 17.5 per cent twice in week and 10 per cent occasionally. It indicates that majority are doing their research work on full time capacity and it is mandatory for research scholars to report to their research supervisor or head of the department for discussion of research progress, hence they preferred to visit university library on regular basis.

RQ-2 To identify the information needs and purpose seeking behaviour of the research scholar

Table 2 shows the results of the purpose of information need and seeking behaviour of research scholars at Gujarat University Library.

Table 2 Purpose of seeking information of research scholars

Purpose of Information Seeking Behaviour	Always	Often	Usually	Sometimes	Never
Core Ph.D. work	38 (47.5%)	23 (28.75%)	10 (12.5%)	8 (10%)	1(1.25%)
Writing Research Papers	27 (33.75%)	25(31.25%)	9 (11.25%)	18 (22.5%)	1(1.25%)
Teaching	16 (20%)	17 (21.25%)	12 (15%)	7 (8.75%)	28 (35%)
Education	28 (35%)	22 (27.5%)	14 (17.5%)	14 (17.5%)	2 (2.5%)

Enrichment of exiting Knowledge	32 (40%)	21(26.25%)	14 (17.5%)	12 (15%)	1(1.25%)
N=80, Multiple response					

From the results it is observed that research scholars visit university library for multiple purposes and majority of total 47.5 per cent scholar always visit library for the purpose of Core Ph.D. work followed by 28.75 per cent often; 12.5 per cent usually visit library whereas 10 per cent of scholars sometime visit the library for the purpose of core research work. Research scholar also approached library for writing research papers in leading professional journals. The data indicates that total 33.75 per cent of scholar always visit library followed by 31.25 per cent often; 22.5 per cent some times 11.25 per cent usually visit the library for research writing purpose. Only 20 per cent and 21.25 per cent Researcher reported always and often used library for teaching purpose. Hence it is justified that major research scholars doing full time research and currently less involved in teaching activity. Highest 40 per cent research scholars reported that they always access library for knowledge enhancement. Overall above data shows that major objective of information seeking activity of scholars are fore core research work, followed by improving exiting knowledge, Education, writing journals & conference papers and teaching purpose they consult information resources and library need play a vital role to serve the core purpose of research scholars.

RQ-3 To understand the preferences of information usage and time devoted by research scholars

Research scholars were asked to respond on preferences to seek information and average time spent in the library. The results tabulated at table 3

Table 3: Preferences to use information & average time spent

Preference to use information	n	Percentage (%)	Average time spent in library	n	Percentage (%)
University Library	24	30	0-1 Hours	28	35
Dept. Library	20	25	1-2 Hours	22	27.5
Working Place	19	23.75	2-3 Hours	21	26.25
Home	17	21.25	More than 3 Hours	9	11.25

Data analysis shows that maximum research scholars of 30 per cent preferred to use university library followed by 25 per cent their department library, 23.75 per cent use information at their working place and 21.25 per cent used information at home. Majority of 35 per cent research scholars spent one hour in library followed by 27.5 per cent one to two hours, 26.75 per cent two to three hours and only 11.25 per cent of research scholar spent time of more than 3 hours in library. From the analysis it is observed that the majority of scholars depends on university library and own department library for research work and during their visit they spent average two hours in library.

RQ-4 To explore the preference of use of e-resources & internet services by research scholars

For quality research work, research scholar must consults various electronic information resources in terms of getting updated information on their subject disciplines, hence we have asked scholars of preferences of use of e-resources and Internet services for their on-going research work. Result of same given at table 4

Table 4: Preference of use of e-resources and Internet services by research scholars

Use of e-resources	N	Percentage (%)	Use of Internet based channels	n	Percentage (%)
E- Journals	18	22.5	Use of E-Mail	29	36.25
E-Thesis & Dissertation	16	20	WWW	20	25
E-Databases	20	25	Remote Login	6	7.5
E-books	13	16.25	FTP	3	3.75
Audio-Visual Materials	13	16.25	OPAC	22	27.5

The results revealed that top priority given to 25 per cent to E-databases, 22.5 per cent to E-Journals and 20 per cent to e-thesis & dissertations. Research scholars rated equal priority of 16.25 per cent to e-books and AV materials. Research Scholars widely used internet based communication channels, mainly 36 per cent of emails and 27.5 per cent of Library online public access catalogue (OPAC) and 25 per cent of open sources web resources. There were less awareness about use of remote login (7.5 per cent) and FTP (3.75 per cent). Analysis shows that the maximum research scholars initiated to use electronic resources and taking benefits of ICT in their respective research areas. Library need to focus more to aware important services offered by the library related to research scholars to increase the maximum utilization of e-resources.

RQ-5 To know the types of information sources needs and accessed by research scholars

Research scholars need to refer print and digital resources for research work. In this regard research scholars were asked to fill up the reply of various traditional and digital information sources used during research work. Data analysis presented at table 5.

Table 5 Type of information sources needs and accessed by research scholars

Types of information sources	Always	Often	Usually	Sometimes	Never
Textbooks	39 (48.75%)	21 (26.25%)	12 (15%)	7 (8.75%)	1 (1.25%)

Reference Books	42 (52.5%)	21 (26.25%)	11 (13.75)	5 (6.25%)	1 (1.25%)
Dissertation & Thesis	29 (36.25%)	16 (20%)	19 (23.75)	11 (13.75%)	5 (6.25%)
Print Journals	21 (26.25%)	19 (23.75)	16 (20%)	21 (26.25%)	3 (3.75%)
Back issue of Journals	10 (12.5%)	17 (21.25)	15 (18.75%)	26 (32.5%)	12 (15%)
Newspapers	17 (21.25%)	20 (25%)	15 (18.75%)	25 (31.25)	3 (3.75%)
Digital Resources	20 (25%)	22 (27.5%)	13 (16.25%)	23 (28.75)	2 (2.5%)
N=80; Multiple response					

Results of analysis depict that scholars has given multiple responses and accessed more than one information sources. It is witnessed that maximum of 52.5 per cent research scholars always accessed reference books followed 26.25 per cent often and 13.75 per cent usually referred reference books. They also retrieved textbooks always at 48.75 per cent. Dissertation and thesis are the most valuable and useful resources for scholars as it provide information on topic were some research work already done by the past researchers. Our survey results found that 36.25 per cent scholars always accessed dissertation and thesis followed 23.75 per cent usually, 20 per cent often accessed this resources. As journals are providing current trends of information to the subject, from the data analysis it found that researchers always referred core print journals of 26.25 per cent followed by 23.75 per cent often and 20 per cent usually approached to it. Here we also found that 26.25 per cent of scholar some time referred print journals which are an indication that scholars accessed online journal database subscribed by library. Also we got similar results with regards to back volumes of print journals as majority of scholars of 32.50 per cent retrieved sometime and 15 per cent never approached back volumes of journals. Again this result indicates that scholars accessed online archives of past issues of journals through leading electronic databases. Data analysis reflect that 25 per cent of scholars always approached digital resources and 27.5 per cent rated as often used and download required articles, research papers, research data from digital information sources. For taking daily updates of the globe and scholars read daily newspapers and results reflected that 21.25 per cent scholars always take daily updates followed by 25 per cent often and 18.75 per cent usually reads newspapers for recent self-updates. Also it found that 31.25 per cent of scholars reported that they sometime read newspapers which reflect that they have accessed other sources for daily self-updates.

RQ-6 To discover the method and sources used for current awareness by research scholars

For discovering any kind of new investigation, research scholars must update with current trends of the subject areas. For this purpose researchers were asked to provide the details of information sources used for updating their current knowledge in the subject. Results of data presented at Table 6

Table 6 Methods and sources used for current awareness by research scholars

Sources of current awareness	Always	Often	Usually	Sometimes	Never
Discussion with Subject	24 (30%)	24 (30%)	22 (27.5%)	9 (11.25%)	1(1.25%)

Experts					
Reading Latest books, Journals & Newspapers (Print & Electronic)	19 (23.75%)	23 (28.75%)	25 (31.25%)	8 (10%)	5 (6.25%)
Participate in professional workshop Seminars & Conference	9 (11.25%)	19 (23.75%)	31 (38.75%	17 (21.25)	4 (5%)
Television & Radio	13 (16.25%)	16 (20%)	17 (21.25)	23 (28.75%)	11(13.75%)
Modern library services (CAS/SDI/Current content bulletin etc.)	7 (8.75)	15 (18.75)	25 (31.25%)	24 (30%)	9 (11.25%)
Email/SMS Alerts from professional agencies	11(13.75%)	12 (15%)	10 (12.5%)	28 (35%)	9 (23.75%)
N=80, Multiple response					

Results reflected that maximum of 30 per cent research scholars always and often get updated by discussion with subject experts. With regards to latest books, journals and new papers in print and electronic format, study reported that total 23.75 per cent always and 28.75 per cent scholars often reads latest literature. Survey reported that 38.75 per cent of scholars usually attend conferences and workshops for professional advancement followed by 23.75 per cent often and 21. 25 sometimes participate in professional meet. Television and Radio were less reported less use by research scholars. Television-Radio rated 28.75 per cent some times and 13.75 per cent never used such media. Results revealed that maximum scholars used modern library services (31.25 per cent usually, 18.75 per cent often and 8.75 always) With regards to Emails and SMS Alerts, study found that 35 per cent scholars sometimes used this services followed by 15 per cent often used serviced offered by various professional agencies.

RQ-7 To scrutinize the common problems faced by research scholars to access library information resources

For improving library services based on the user requirement, scholars were asked to point out the major problems generally they faced during information seeking activities in library. The results are presented at Table 7.

Table 7 Problems faced by research scholars during seeking information

Major problems faced by Research scholars	n	Yes	Percentage (%)	No	Percentage (%)
Training & guidance required to access online resources	80	44	55	36	45
Difficulty to identify appropriated	80	42	52.50	38	47.50

information sources					
Non availability of subject materials	80	37	46.25	43	53.75
Absence of latest information sources	80	33	41.25	47	58.75
Time is constraints for searching literature	80	30	37.50	50	62.50
Non availability of online resources	80	28	35	52	65
N=80, Multiple response					

Results indicated that majority of scholars are facing trouble in accessing various online databases (55 per cent) due to the lack of guidance and user manual etc. The second major obstacles they faced is difficulty in identify right information sources (52.5 per cent) due to information overload and parallel information available and published in various information sources. Similar results reported in the study of Swedish University of Economics and Business Administration, Finland **(Junni 2007)** Non availability of subject collections (46.25 per cent) and not adding current addition of information sources (41.25 per cent) were reported as difficulty of research scholars. Also it pointed out that getting time is a major constraint in searching literature (37.5 per cent) and reported that some online resources were not available in the library (35 per cent). As mentioned by **Marcella Rita (2018)** that library must follow five core laws of Library science given by S R Ranganathan especially fourth law emphasis that library system and information scientists should find ways to ease the connection between the right information and the user and save the time of users. Library need to address all these major issues faced by the research scholars and resolve it by taking appropriated positive steps.

DISCUSSION

The study has discovered the information need and seeking behaviour activities of research scholars of linguistics and social science disciplines at Gujarat University (GU). A first kind of effort made to evaluated the seeking behaviour of research scholars at GU. The findings have some useful implications for Gujarat University Library (GUL) for reviewing and re-designing library systems and services based on university scholars necessities.

In this study, it found that in gender category female (62. 5 per cent) are engaging more in research work than men, it is observed that female little dominated in research work, Further it is found that majority of the research scholar 72.5 per cent visit the library on daily basis (42.5 per cent) and once in week time (30 per cent) for seeking information. It is showing the importance and significant roles of Gujarat University Library in research activity of university as

information and knowledge facilitators for social scientists. Survey examined the findings of purpose of information seeking behaviour of research scholars and results revealed that 76.25 per cent (47.5 per cent always and 28.75 often) of the research scholars visit university library for the core purpose of Ph.D. works and 66. 25 per cent (40 per cent always and 26.25 per cent often) scholars visit for knowledge enrichment, whereas 65 per cent (33.75 per cent always and 31.25 per cent often) of scholars visit the library and retrieved information for writing research or conference papers. Study indicates that scholars are curious about their work and continue to seek in-depth information on their leading research areas. Major research scholars preferred to use Gujarat University Library and own department libraries (55 per cent) for their information needs and they spend average two hours (62.5 per cent) in library. Survey result found that research scholar used print resources and also initiated to access electronic resources and scholars has reported highest preference to e-database and e-journals (57.5 per cent) and scholars taking advantage of internet based services (61.25 per cent) from Gujarat University Library for exchange information seeking activities; however research scholars are less aware about using remote login and File Transfer Protocol (FTP) services of Internet offered by library and for increasing the maximum utilization of such services, library authority need to provide in-depth information literacy program focused to this research community. Study observed that majority of the research scholar retrieved information from various types of information sources; mainly they consults reference collection, core subject books, journals and digital resources subscribed by Gujarat university library. With regards to methods and sources used by research scholars for updating current awareness, results indicates that scholars preferred to discuss with subject experts (60 per cent) and reading and accessing print or digital resources (52.5 per cent) from the library. Also few scholars (35 per cent) reported that they enhanced current knowledge by attending professional workshop and seminars. As library provides various value added services like Current Awareness Services (CAS) Selective Dissemination of Information (SDI) and current content bulletin etc., but still scholars not fully utilized these services which are more useful for them in research work, hence library need to think over for branding of such services. Study also explored the problems faced by the research scholars in information seeking activity and results revealed that major difficulty scholars faced in accessing various online resources subscribed by Gujarat University Library. University Library should provide e-resources usage training to research scholars. Also due to the information overload, scholars faced difficulty to find or select appropriated information sources and library can reduce this problem by creating "Researcher Help Desk" dedicated only for Ph.D. scholars and research supervisors. The role of help desk staff will guide research scholars about the specific literature search and explain authenticity and content coverage of resources available with library and resolve research related queries raised by scholars. During the entire research work from selection of research probem to submission of research thesis, scholars interacts with information in form of various resources and as highlighted by **Falciani-White (2017)** scholars need systems that help them during interaction without obscuring them and therefore library policy and procedures must be flexible and user friendly to accommodate scholars diversity of needs.

CONCLUSION AND RECOMMENDATIONS

University library are supporting teaching, research and publication activity of university. Based on the finding of the study, we strongly believe that Gujarat university library need to understand the information needs of the research scholars. In recent time, most of the literature are available in digital form and Gujarat university library has procured or subscribed valuable e-resources but still there is less utilization and for improving usage scholars need basic orientation, training and demonstration guidelines on how to access such digital resources. Library need to plan and deliver comprehensive user education program which will be helped to this scholar community and parallel will also increase the utilization of library resources. Library need to review their exiting collection development policy and allocation of budgetary provisions well in advance based on the scholar needs. Library must promote modern library services like electronic document delivery, current content services; provide remote login to research scholars so they can download the required research literatures at home or work place. A sound updated institutional repository will more useful to research community of Gujarat University for lifelong preservation of published research work of university. Gujarat University Library should take a lead to update and maintain Institutional repository which also help full to the university authority for review of research trends at Gujarat University. Library must promote scholar's need based services like subject bibliography and article indexing, Referral services, Translation services which benefited to scholars in their on-going research work. Ph.D. course work conducts under Academic Staff College of Gujarat University and in the course work syllabus; they must incorporate hand on practice on use of learning resources and electronic databases which will creates positive impact on utilization of digital resources and also enhance the quality of research work.

The study has not covered the research scholars of other disciplines like Science, Engineering and Technology, and other categories of the users like faculty, Post Graduate and M. Phil Students, who are also the regular users of university library. Hence a further research on information seeking behavior of entire community of Gujarat university library users may conduct and can be more useful for reframing the university library system, user centric strategic library policy and quality of services.

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