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Information Seeking Habits of Software Professionals in Pune Region

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Abstract This study investigates the information seeking patterns and types of information sources used by software professionals which are in Pune region of Western India. The study employed the descriptive research method, using questionnaire for data collection. The present study shows that software professionals have been shown more affection to Library collection: also they preferred Non print material with Internet. Software professionals are using Internet as a media to get the information which is followed by online databases.
Keywords *Information; Information Seeking; Information Seeking Habits; Software Professionals; Internet*

1. Introduction

The information-seeking habits of software professionals are of interest and importance to special librarians/Information officers. While concerned with improving access and use of information, tends to focus more on emerging electronic services than exploring existing needs. No studies, however, have been conducted primarily about software professionals. The new ways of information seeking are connected with new thinking methods and new problem solving approaches. Software professionals in all disciplines need certain background knowledge and skills in information seeking to incorporate the ideas and techniques of information processing into their stream.

2. Definitions

2.1. Information

Shera (1972) defines, “Information is that, which is transmitted by the act or process of communication, it may be a message, a signal, and a stimulus. It assumes a response in the receiving organism and therefore, possesses response potential.”

2.2. Information Seeking

According to Kuhlthau (2004) “The process of construction within information seeking involves fitting information in with what one already knows and extending this knowledge to create new perspectives.”

Case (2002) defines information seeking as “a conscious effort to acquire information in response to a need or gap in your knowledge.”

2.3. Information Seeking Behaviour

Information behaviour encompasses information seeking as well as the totality of other unintentional or passive behaviours (such as glimpsing or encountering information) as well as purposive behaviours that do not involve seeking, such as avoiding information (Case, 2002). The phrase Information-Seeking Behaviours has been defined variously by different Information Seeking Behaviour of Students Natarajan TRIM 8 (2) July-Dec 2012, 102 authors. According to Krikelas (1983) information seeking behaviours refers to — any activity of an individual that is undertaken to identify a message that satisfies perceived needs.

Wilson (2000) defines that information seeking behaviour is the purpose of seeking information as a consequence of a need to satisfy some goal. In the course of seeking, the individuals may interact with manual information systems (such as a newspaper or a library) or with computer based systems (such as the web). According to him, a general model of Information behaviour needs to include at least the following elements: “an information need and its drives, i.e. the factors that give rise to an individual’s perception of need, and the process of actions involved in that response”. Normally people used to study small groups via Observation or unstructured interviews. They have moved away from studying large groups via questionnaires and structured interviews. They attempt to generate information-seeking model. The studies have been conducted for occupational groups and for social roles and demographic groups. They are carried out by the following:

- Quantitative research
  - Used predominately until the 1980s
  - Provides statistical information

- Qualitative research
  - Richer data
  - Does not start with hypothesis

- Mixed methods
  - Combination of qualitative and quantitative approaches

3. Objectives of the Study

- Identify and study Information requirements of Software professionals.
- Identify & study the standard sources being referred by various experts in multiple domains of IT industry.
- To find out various media used by software professionals to get information.
- To find out problem faced by professionals while seeking information.
- Prepare inputs for librarianship in IT services.
- Compare few standard sources being used.

4. Research Methodology

Descriptive research method has been applied for the present study. The questionnaire has been distributed to the software engineers to receive their information seeking modes. The data has been collected through the questionnaire as a tool for data collection. Collected primary data has been analyzed and interpreted under various headings.

5. Scope of the Study

This scope of the study is limited only for the software professionals who are working in a Pune region of Western India. The questionnaires will be distributed among 400 software professionals out of which only 365 respondents favorably responded, 35 respondents does not responded to it in the process of collection of primary data for the present study.

6. Review of Literature

Rupp-Serrano and Robbins (2013) The author founds that the information seeking behavior of academic education faculty from twenty large public research universities. It includes an examination of how frequently education faculty seek or access the information, how they stay up-to-date on current developments in the field and identify less recent journal literature, how valuable library resources and services are to their information needs, and the importance of library research to the fields of education. The responses from the survey participants emphasize the importance of electronic access to scholarly journals and library databases and the continuing value of books, both print and electronic, for meeting the information and research needs of education faculty.

Robbins and Engel (2011) Studies of information-seeking behaviors are common in the professional literature for library and information studies. This study examines the generalizability of findings of single- institution studies to other institutions by performing an institution-to-institution comparison of the results obtained from an information-seeking behavior survey sent to engineering faculty at twenty research institutions

Natarajan (2012) He traced the most important aspects of Information seeking behaviour of the students, for whom the library and information centers are being maintained. It deals with the libraries of management institutions in National Capital Region (NCR) of Delhi. A detailed questionnaire has been circulated and the data analyzed in relation to the availability of information services, the frequency of visits to the library, the gender wise distribution of questionnaire, the nature and type of information required, the major information services used, the purpose of information seeking and the level of satisfaction.

Jamali and Nicholas (2008) Author founds that the two aspects of information seeking behaviour of physicist sand astronomers including methods applied for keeping up-to-date and methods used for finding articles. The relationship between academic status and research field of users with their information seeking behavior. The study reveals differences among subfields of physics and astronomy in terms of information-seeking behaviour, highlights the need for and the value of looking at narrower subject communities within disciplines for a deeper understanding of the information behaviour of scientists.

7. Data Analysis

7.1. Age Group

To get the Information about the age group of the respondents. The question has been asked and collected information is as in Table 1.

Table 1: *Age group of respondents*

Sr. No.	Age	Frequency	Percentage
1	22-26	159	43.56
2	27-31	147	40.27
3	32-36	41	11.23
4	37-40	3	0.82
5	No Response	15	4.11
	Total	**365**	**100**

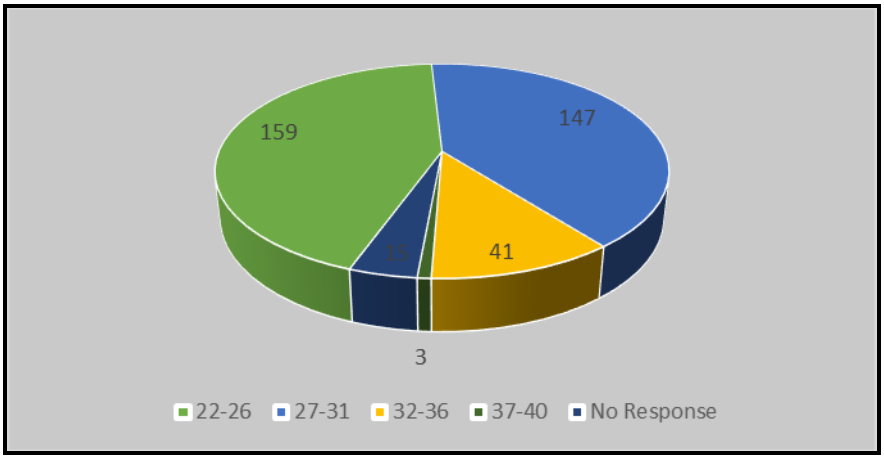

Figure 1: *Age group of respondents*

Table 1 and Figure 1 indicate that out of 159 respondents majority of them belongs to 22-26 age group. The second largest category of the respondents belongs to the age group of 27-31.

7.2. Language

To get the Information about the Languages known of the respondents. The question has been asked and collected information is as in Table 2.

Table 2: *Languages known*

Sr. No.	Language Known	Frequency	Percentage
1	English	363	99.45%
2	Hindi	362	99.18%
3	Marathi	285	78.08%
4	Any Other	28	7.67%
5	German	4	1.10%
6	French	3	0.82%
7	Japanese	2	0.55%
8	Russian	0	0.00%
9	Chinese	0	0.00%

Table 2 shows that 363 i.e. (99.45%) professionals knows English, 362 i.e. 99.18 followed by Hindi Language, whereas 2 i.e. 0.55% professional knows Japanese.

7.3. Information Require

Table 3 shows the information require by the professionals

Table 3: *Kind of Information Require*

Sr. No.	Kind of Information	Frequency	Percentage
1	Technical information(Technology related)	310	84.93
2	Software Requirement Specification(SRS)	266	72.88
3	Company/Client profile	161	44.11
4	Domain Information	81	22.19
5	Market analysis	60	16.44
6	Any others(Please specify)	0	0.00

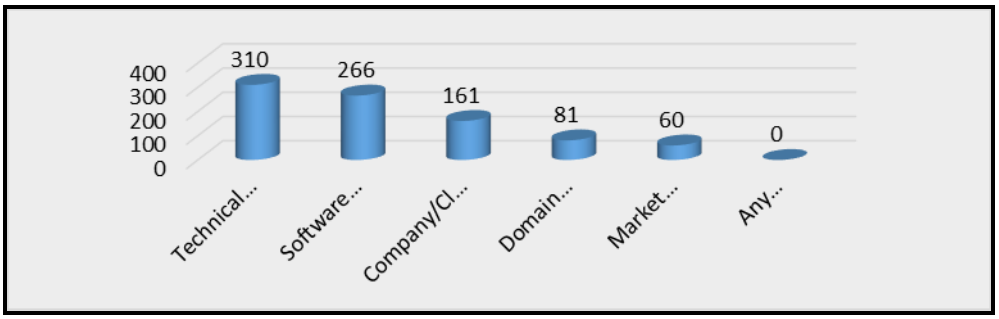

Figure 2: *Kind of Information Require*

Table 3 & Figure 2 shows that, 310 i.e. (84.93%) Software professionals are using Technical Information, and 266 i.e. (72.88%) software professionals are using Software Require Specification (SRS) whereas 60 i.e. (16.44%) Software professionals are using Market Analysis.

7.4. Sources of Information

Table shows the sources of information used by the software professionals

Table 4: *Sources of Information*

Sr. No.	Sources	Rank	Total Response	Percentage
1	Internet	1	331	90.68
2	Online Database	2	303	83.01
3	Expert	3	297	81.37
4	Supervisors(PM/TL/PL)	4	292	80.00
5	Library Resources	5	279	76.44
6	Colleagues(Institution)	6	243	66.58
7	Library catalogue	7	223	61.10
8	Librarian/Information Officer	8	192	52.60
9	Library Staff	9	147	40.27
10	Conference/Workshops/Seminar	10	140	38.36

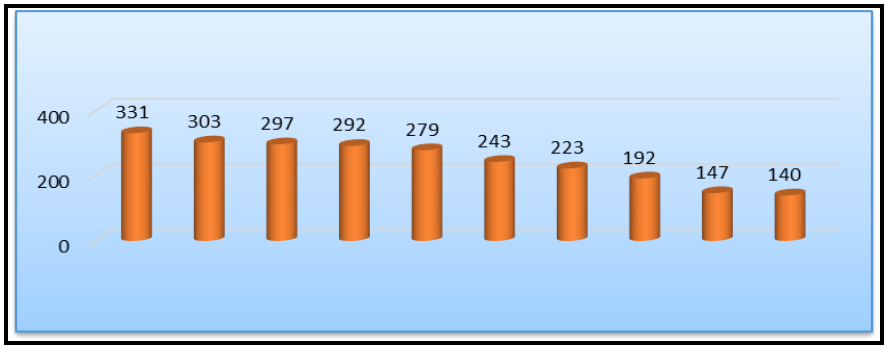

Figure 3: *Sources of Information*

Table 4 and Figure 3 depicts that the 331 i.e. (90.68%) of software professionals use Internet as sources of information in first rank position and 303 i.e. (83.01%) professionals use Online Databases as sources of information in second rank position of whereas 140 i.e. (38.36%) professionals use Conference/Workshops/Seminar as a sources of information in last i.e. tenth position.

7.5. Media

Information about the Medias used by software professionals. The question has been asked and collected information is as in Table 5.

Table 5: *Media used by the professionals*

Sr. No.	Media	Frequency	Percentage
1	Internet	355	97.26
2	Books	341	93.42
3	Newspaper	315	86.30
4	Journals/Periodicals	272	74.52
5	Website/Portals	157	43.01
6	Training & Workshops	114	31.23
7	Video Conferencing	68	18.63
8	Teleconferencing	39	10.68

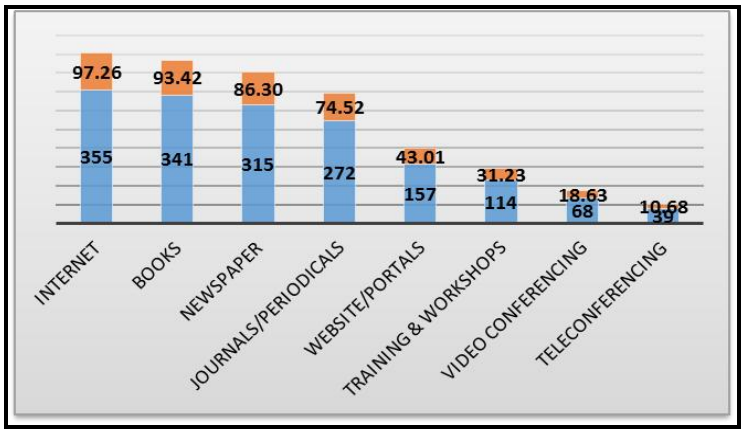

Figure 4: *Media used by the professionals*

Table 5 & Figure 4 shows that 355 i.e. (97.26%) professionals use Internet a media and to get the information and 341 i.e. (93.42%) professionals use Books, whereas 39 i.e. (10.68%) professionals use Teleconferencing as a media & to get the information.

7.6. Problems Faced by Software Professionals While Seeking Information

Table 6 shows that difficulties/problems faced by the professionals

Table 6: *Problems faced by the professionals*

	High	%	Low	%	Medium	%	No response	%
Inadequate Library services	161	44.1	23	6.3	163	44.65	18	4.96
Information not readily available	133	36.43	40	10.95	169	46.3	23	6.3
Information is scattered in too many ways	81	22.19	90	24.65	174	47.67	20	5.47
Interdisciplinary nature of Literature	82	22.46	71	19.45	187	51.23	25	6.84
Lack of time for searching	153	41.91	40	10.95	152	41.64	20	5.47
Lack of access to library material due to library rules/procedures	135	36.98	37	10.13	174	47.67	19	5.2
Lack of co-operation from the library staff	117	32.05	65	17.8	160	43.83	23	6.3
Understanding project requirement	108	29.58	60	16.43	178	48.76	19	5.2
Lack of domain knowledge	110	30.13	59	16.16	180	49.31	16	4.38
Language Problem	63	17.26	83	22.73	202	55.34	17	4.65

Table 6 indicates that Inadequate Library Service and Lack of time for searching are the major difficulties in searching the information.

7.7. Input Requires from Library

Table 7 shows that inputs required from Library. The question has been asked and collected information is as below.

Table 7: *Inputs Requires from Library*

Sr. No.	Inputs	Frequency	Percentage
1	Alerting Service	275	75.34
2	Availability of E-Resources	157	43.01
3	CAS/SDI	127	34.79
4	Reprographic Service	21	5.75

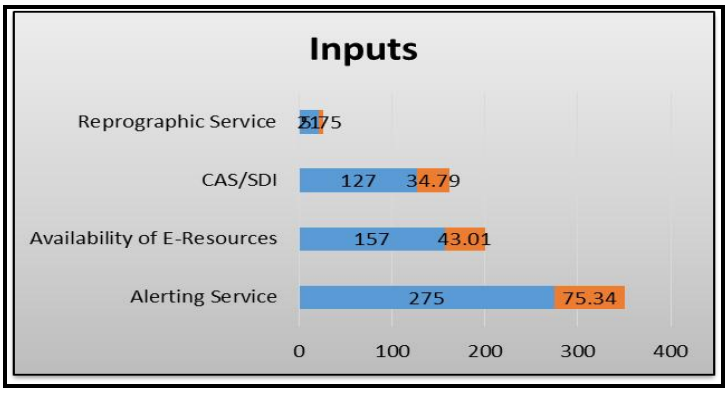

Figure 6: *Inputs Requires from Library*

Table 7 & Figure 6 Shows that 275 i.e. (75.34%) professionals require Alerting service as inputs from Library and 157 i.e. (43.01%) professionals require Availability of E-Resources as inputs form Library, whereas 21 i.e. (5.75%) professionals require Reprographic service as inputs from library.

7.8. Standard Sources (Print Sources)

Table 8 shows that print sources used by professionals

Table 8: *Print Sources*

Sr. No.	Print Source	Frequency	Percentage
1	Book	352	96.44
2	Reference Book	193	52.88
3	Year Book	97	26.58
4	Periodicals	83	22.74
5	Newsletter	46	12.60
6	Directories	43	11.78

Table 8 shows that 352 i.e. (96.44%) professionals are using book as a source in print format and 193 i.e. (52.88%) professionals are using Reference book as a source in print format whereas 43 i.e. (11.78%) professionals use Directories as a source in print format.

7.9. Standard Sources (Non-Print Sources)

Table 9 shows that Non-print sources used by professionals.

Table 9: *Non-Print Sources*

Sr. No.	Non-Print Sources	Frequency	Percentage
1	Web	349	95.62
2	A/V Material	329	90.14
3	Online databases	284	77.81
4	PDF Files	216	59.18
5	E-books	175	47.95

Table 9 shows that 349 i.e. (95.62%) professionals are using Web as a source in Non-print format and 329 i.e. (90.14%) Professionals are using PDF Files as a source in Non-print format followed by 284 i.e. (77.81%) Professionals are using Online databases whereas 175 i.e. (47.95%) professionals use E-books as a sources in Non-print Format.

Table 8 & 9 shows that as compare to print sources Non-print sources are mostly referred.

8. Findings

- In the age group analysis, out of 365 respondents 159 i.e. 43.56% belongs to 22-26 age category. Whereas 147 i.e. 40.27% belongs to 27-31 age category.
- It is found that 363 i.e. (99.45%) professionals knows English, 362 i.e. 99.18% followed by Hindi Language whereas 2 i.e. 0.55% professional knows Japanese.
- It is seen that, out of total no. of respondents 310 i.e. (84.93%) professionals requires Technical information whereas 60 i.e. (16.44%) requires Domain information.
- It is found that, total no. of respondents 331 i.e. (90.68%) professionals use Internet which occupies first position whereas 140 i.e. (38.36%) professionals use Library staff in last position.
- It is seen that, 355 i.e. (97.26%) professionals use Internet as a media whereas 39 i.e. (10.68%) professionals use Teleconferencing.
- Table 6 and Figure 4 indicate that Inadequate Library Service and Lack of time for searching are the major difficulties in searching the information.

- It is observed that, out of 275 i.e. (725.34%) professionals need Alerting service whereas 21 i.e. (5.75%) professionals need Reprographic service.
- It is axiom that, out of 352 i.e. 96.44% professionals use book as a standard sources whereas 43 i.e. (11.78%) use Directories.
- It is seen that, 349 i.e. 95.62% professionals use Web as a standard sources in Non-print material whereas 175 i.e. (47.95 %) use E-books.

9. Conclusion

- It is observed that maximum respondents belongs to 22-26 age category.
- From the above Result it is found professionals knows English language followed by Hindi & Marathi.
- It is seen that, out of total no. of respondent i.e. software professionals requires Technical information.
- Professionals use Internet as a source of information for getting the information.
- It is also seen that professionals use Internet as media to get the information.
- Inadequate Library Service and Lack of time for searching are the major difficulties in searching the information for the professionals.
- Alerting service and Reprographic services is the input required by software professionals.
- It is axiom that professionals use book and Web print and non-print material respectively.

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