Information gathering behaviour of arts scholars in Sri Lankan universities: a critical evaluation

Sriyani Ileperuma

The author

Sriyani Ileperuma is Senior Assistant Librarian at the Science Library, University of Peradeniya, Peradeniya, Sri Lanka.

Abstract

Describes the results of an investigation on the information gathering behaviour of arts scholars in Sri Lanka's universities. The method involves a questionnaire to collect both qualitative and quantitative data and descriptive statistical methods were applied in the analysis of data. The overall response rate was around 70 per cent and each university was considered as a cluster. Arts scholars gather information for three basic types of activities; teaching, research and administration. The respondents spend 45-55 per cent of their time in the library and the majority ranked "to keep up with current developments" as the main reason for seeking information. In comparison to scientists, arts scholars appear to use publishers' catalogues as the most important source for new developments in their relevant fields. Many do not use index card files or outside assistance in searching literature.

Electronic access

The research register for this journal is available at
http://www.emeraldinsight.com/researchregisters

The current issue and full text archive of this journal is available at
http://www.emeraldinsight.com/0160-4953.htm

1. Introduction

User studies in library and information science are based on the premise that effective library services must begin with a clear understanding of the actual needs of information users. In an era of continuous technological developments in conjunction with information over-load, user studies continue to be a vital tool enabling information professionals to improve both their understanding of information use and information delivery (Saitri, 1999). Day-to-day contact with users can provide some of this understanding, but for a deeper insight into the information needs, more formal studies are required. As White (1975) states, if academic librarians are to attempt realistically to serve academic researchers, they must recognise the changing needs and the variations in information gathering which they generate and then provide the type of services that would be most useful to the researcher. The study of information needs and gathering behaviour dates back to 1948, with the paper presented by Bernal and others at the 1948 Royal Society's conference on Scientific Information (Bernal, 1960). The number of studies carried out in the social sciences and humanities compared to studies on scientists' information uses and needs is trivial, both absolutely (Hopkins, 1989) as well as comparatively (Line, 1969). There have been some studies on the information needs and information gathering behaviour of agricultural scientists in Sri Lanka (Mudannayake, 1987) and of pure scientists in Sri Lankan universities (Ileperuma, 1994), but there are no comparable studies on the corresponding needs of arts scholars in Sri Lankan universities engaged in the areas of humanities, social sciences, language and culture. Arts scholars in the areas of humanities, social sciences, language and culture who constitute the study group in this survey require information for two widely different purposes; namely, teaching and research. The availability of resources in university libraries makes a great impact on the research activities of arts

scholars. This study provides an opportunity for surveying the information needs and gathering behaviour of arts scholars in a wide variety of disciplines in the universities of Sri Lanka. Once the requirements and means of information gathering are understood, the role of the library in terms of collection and services could be optimised.

As experienced by Line (1969), Slayter (1988) and Stone (1982) in their studies carried out on humanists and social scientists, clear definitions of these fields are elusive, unlike in the sciences. These studies have also shown that boundaries of these fields are fuzzy. Therefore, scholars in the arts fields in this study have been categorised taking into account the faculties to which they are attached and also adapting the definitions by Line (1969), Ogburn (1959), Slayter (1988) and Stone (1982).

2. Methodology

2.1 Objectives of the study
To analyse the information-gathering behaviour of arts scholars in terms of:
- purpose for which information is gathered;
- means of obtaining information; and
- sources and types of information used.

2.2 Operational definitions
Arts scholars
A confirmed faculty member with postgraduate qualifications in the fields pertaining to humanities, social sciences, language and culture holding full-time appointments. This term was adapted to bring together all the above mentioned areas after consulting works of Line (1969), Ogburn (1959), Slayter (1988) and Stone (1982) .

Information
Knowledge, intelligence, facts or data that can be used, transferred or communicated. It may be derived from experience, observation, interaction and reading. It has several basic qualities, viz. existence, availability, language or recognisable representation and meaning (Weisman, 1972).

Information gathering behaviour
Ways and means used by scholars to collect information.

Information needs
Any piece of information, recorded as well as unrecorded that a scholar may need (as distinct from want, demand and use) in connection with his study, teaching and research activities (Rowley and Turner, 1978).

Information sources
Verbal or recorded information available to scholars that may be grouped under three categories.
(1) Formal channels – journal articles, reprints, handbooks, textbooks, reviews, conference proceedings, abstracts, indices and bibliographies, card catalogues, selective dissemination of information (SDI) services, current awareness services (CAS), audio-visual media, databases, bulletin board systems, e-mail, etc.
(2) Informal channels – "invisible college", private correspondence, local and foreign conferences, meetings and seminars.
(3) Semi-formal channels – unpublished reports and theses, draft manuscripts, unpublished conference presentations, suppliers' catalogues and trade magazines.

Invisible college
Groups of collaborators in a research area, linked together through their leaders, who communicate with one another and transmit information on new research findings informally before publication (Young, 1983).

2.3 Limitations of the study
- A common limitation when questionnaires are administered is the willingness and the ability of respondents to respond at all or to respond in a timely manner.
- Honesty of subjects in responding to library use due to egoism may have affected the study.
- Due to the prevailing civil unrest in the northern and eastern provinces of Sri Lanka, the distribution of questionnaires was hindered and, hence, the University of Jaffna and Eastern University of Sri Lanka could not be included in this study.

Survey research method was applied for this investigation on information-gathering behaviour of academic scholars in the humanities, social sciences and culture in the

universities of Sri Lanka. Simple random sampling method was applied to the total population of 415 arts scholars considering each university as a cluster, since the size of the population in each faculty pertaining to each disciplines in the six universities is a variable number. Faculty handbooks, lists of faculty staff members and personal contacts were employed to obtain this information.

2.4 Research design

The research design is cross-sectional, elucidating the characteristics of information-gathering behaviour of academic scholars in the humanities, social sciences and language and culture in the universities of Sri Lanka.

2.5 Research instrument

With the specified objectives in mind, research issues were formulated to facilitate data gathering. The questionnaire was designed along these issues to fulfil the objectives of the research project. The variables in the current problem were identified considering information needs and information-gathering behaviour separately. The main research instrument adopted in this study was a self-administered mailed questionnaire consisting of structured, open-ended as well as dichotomous questions. It was patterned adapting questionnaires used by Melvin J. Voigt (1961) for his study on the information-gathering habits of Danish and Scandinavian scientists and by Maurice B. Line, J. Michael Brittain and Frank A. Cranmer (1971) for the investigation into information requirements of the social sciences. Data pertaining to the following variables were collected through the first part of the questionnaire: qualifications of respondents, areas of subject specialisation, fields of main research interest, peripheral areas of academic and research interests and involvement in teaching programmes. Data relating to information-gathering behaviour which is the dependent variable, was on means of obtaining tools for current awareness, location of sources and approaches to information sources.

A pilot test was carried out to check for its clarity after which it was modified. Questionnaires were mailed to individual scholars of the sample population. The questionnaire was followed by visits to the six universities to interview subjects in the sample to clarify responses.

2.6 Analysis of data

In this study, qualitative as well as quantitative data were collected through the questionnaire. Descriptive statistical methods were applied in the analysis of data. Univariate and bivariate methods of analysis were used for dichotomous and ordinal categories of data, respectively. Raw data collected were reduced, tabulated and evaluated as per requirements of the study. The refined data were analysed by using frequencies, percentages and rank order. For all questions on ranking, Kendall's coefficient of concordance "ω" method was used to confirm the validity of the findings. Chi square test was applied to test the significance of the value of "ω".

3. Results

The total number of questionnaires distributed was 218, out of which 151 duly completed questionnaires were received, which indicates an overall response rate of 69.27 per cent. The response rate varied among individual universities. The University of Colombo and the Open University of Sri Lanka recorded a response rate of 72 per cent. There was a response rate of 71 per cent from the University of Peradeniya, 70 per cent from the University of Ruhuna, 67 per cent from the University of Sri Jayawardanapura and 66 per cent from the University of Kelaniya. Academic scholars in the sample were classified into three main categories of disciplines.

(1) Humanities.
(2) Social sciences.
(3) Language and culture.

Humanists
This category includes scholars from the departments of Arabic and Islamic Civilisation, Archaeology, Fine Arts, History, Pali and Buddhist Studies, Philosophy and Psychology. The total number of scholars in this category of the sample was 42, out of which 31 responded. This number constitutes 20.53 per cent of the total study group.

Social scientists

This category includes scholars attached to the departments of Anthropology, Commerce, Economics, Education, Geography, Library and Information Science, Management and Finance, Mass Communication, Political Science and Sociology. The total number in this category was 121, out of which 86 responded. This constitutes 56.95 per cent of the total study group.

Language and culture scholars

The permanent academic staff members attached to the departments of Classical Languages, English, Hindi, Cultural studies, Linguistics, Modern Languages, Sanskrit, Sinhala, Tamil, Western classical culture in the universities were included in this category. The total number in this category was 55, out of which 34 responded. This constitutes 22.52 per cent of the total number of respondents.

Arts scholars in universities under consideration in this study are engaged in three basic types of activities; viz., teaching, research and administration. All the respondents in the Humanities category indicated that they are involved in both teaching and research. Social scientists and scholars in the Language and Culture categories showed that their involvement in research is less than the Humanities category. A total of 17.65 per cent were engaged in administrative duties such as holding positions of the Dean of Faculty, Heads of departments, etc., in addition to teaching and research. A comparatively low percentage of subjects (8.82 per cent) indicated their involvement in other activities. Respondents were asked to indicate other lines of work in addition to teaching, research and administration. The response to this question indicated involvement in activities such as writing books, student counselling, undertaking consultancies, public lecturing, social work and coordination of programmes and projects. This study shows that information practices of arts scholars strongly depend on the line of work and its relative importance. Scholars who are strongly involved in research will require journals, abstract journals, reviews, monographs and access to relevant databases and other advanced electronic media to keep abreast of the latest developments in their areas

of research interest. In the case of a scholar whose main involvement is teaching, the availability of the latest textbooks, handbooks, government publications, etc., could determine his/her information-seeking behaviour. Consideration should also be given to peripheral areas of interest in addition to the main areas of interest.

It is important from the point of view of the library to ascertain the broad needs of users. This requires the breakdown of the requirements of scholars with respect to teaching and research. An attempt was made in this study to solicit information with respect of the above question by asking respondents to specify separately, the percentage of time spent in the library on teaching and research-related activities. The results of this study also indicated that a majority of the respondents spend 45-55 per cent of their time in the library on activities related to teaching. Analysis of data collected on the areas of subject specialisation, areas in which they have published works and their past, current and potential research projects, shows that there are individual differences even within a specialised field. It further reveals that there is a tendency among the arts scholars to change fields of specialisation; for example, from Sociology of Ethnic Relations to Conflict Management, Vedic Literature and Culture to French. However, there are also some areas, for example, International trade, Political Anthropology, Sanskrit, Tamil, Maritime Archaeology relating to all three main categories where respondents seem to continue work in the area of specialisation. It is an important revelation here that there is intermixing of subject areas among the three main categories; for example, Gender Studies in the Humanities; Cultural Anthropology in the Social Sciences, etc.

3.1 Information-gathering behaviour of arts scholars

Scholars in the arts-based disciplines use a variety of widely different approaches to fulfill their information needs. The information-gathering behaviour depends on the specific requirements of an individual scholar. This includes why a scholar seeks information in the first place and also how this information is

acquired. Thus information-seeking behaviour includes the purposes for seeking information, the means, tools, information sources, approaches and the library facilities used. To collect data on the purposes for which arts scholars seek information, respondents were asked to rank the following five main purposes for which they seek information:

(1) to support research work;
(2) to keep up with current developments;
(3) to develop competence;
(4) to develop educational material; and
(5) to carry out administrative tasks.

Table I illustrates the ranking of the above five purposes by the respondents in the three categories.

"To keep up with current developments" was ranked first by both the social scientists and language and culture scholars while humanists considered "supporting research work" as most important. Scholars in the language and culture discipline ranked "supporting research work" in the fourth place. Respondents in all three categories of disciplines ranked "to develop educational material" third. Developing competence was ranked fourth by humanists and social scientists, while the scholars in language and culture ranked this aspect second. Lowest priority was given to the purpose of carrying out administrative tasks. This is in accordance with the results of the question regarding category of work the respondents engage themselves in. Even the 8.82 per cent who are involved in administrative duties ranked the purpose "to carry out administrative tasks" last. Kendall's coefficient of concordance, "ω" calculated for the data was 0.0663 and Chi square test applied on this

value indicated that this result is not significant and hence there is no agreement among the three categories of arts scholars regarding the importance of the various purposes for seeking information. However, findings of studies carried out on Sri Lankan agricultural scientists (Mudannayake, 1987), as well as on chemists (Ileperuma, 1994) working in the universities and the private sector in Sri Lanka, indicated that there was agreement on the importance of the purposes for seeking information among the various groups of scientists.

3.2 Current awareness (CA) and tools used for locating information

In this study, attempts were made to find out further facts on information sources and specifically on how scholars discover information needed for keeping abreast of new developments in their respective subject specialties. At this stage, an attempt was made to determine which secondary sources the scholars depend on most to lead them to printed information. To facilitate this requirement, respondents were asked to rank the most frequently used tools for current awareness. Table II shows mean scores and rank orders of these tools with respect of the three categories of scholars.

Publishers' catalogues were ranked as the most important source for making scholars aware of new developments in the relevant fields. Abstracting journals were ranked second by scholars in all three categories of disciplines. References in journal articles were ranked third by respondent humanists and social scientists, while the language and culture scholars ranked this tool in the fourth position. Acquisitions lists prepared by libraries received the seventh

Table I Purpose of respondent scholars for seeking information by rank and category of discipline (n = 151)

Purposes	Humanities n = 31 Mean	Rank	Social sciences n = 86 Mean	Rank	Lang. and culture n = 34 Mean	Rank	SR	D	D²
To support research work	1.2	1	2.37	2	3.95	4	7	2	4
To keep up with current developments	2.6	2	1.77	1	1.72	1	4	5	25
To develop competence	3.6	4	4.18	4	2.45	2	10	1	1
To develop educational materials	2.94	3	3.04	3	3.01	3	9	0	0
To carry out administrative tasks	4.94	5	5.0	5	4.91	5	15	6	36

Notes: $\sum$ SR (sum of ranks) = 45; average SR = 9; degrees of freedom – 4; $\sum$ D² = 66; ω = 0.73; χ^2 = 8.8; significance – 0.0663

Table II Current awareness and information-searching tools used by respondent arts scholars (*n* = 151)

Current awareness tools	Humanities n = 31		Social sciences n = 86		*Lang. and culture* n = 34		SR	D	D^2
	Mean	Rank	Mean	Rank	Mean	Rank			
Acquisitions lists prepared by the library	7.01	7	7.28	7	7.14	7	21	10	100
Browsing through book shelves	3.95	4	4.92	6	5.28	5	15	1	1
Library indices	5.17	5	4.21	4	3.12	3	12	0	0
Reviewing media	6.24	6	8.25	8	8.71	8	22	10	100
Abstracting journals	2.15	2	2.21	2	2.15	2	6	5	25
Bibliographies	7.86	8	4.92	5	6.31	6	19	2	4
Publishers' catalogues	1.32	1	1.27	1	1.41	1	3	10	100
References in journal articles	3.1	3	3.24	3	3.97	4	10	3	9
Informal sources	8.38	9	8.93	9	8.71	9	27	5	25

Notes: Sum of ranks (SR) = 135; average SR = 15; degrees of freedom – 8; $\sum D^2$ = 364; ω = 0.9333; χ^2 = 22.4; Significance – 0.0042

ranking. This may be due to non-availability of current awareness publications produced by libraries. Importance of CA publications put out by libraries for academic scholars is revealed in Boakye's (1999) study. Informal sources received the lowest priority from all three categories of disciplines. This shows that the arts scholars do not depend much on private correspondence, informal discussions with peers, participation at seminars, lectures, etc. The overall rank order depicts a deviation from the results of the information-seeking behaviour of agricultural scientists (Mudannayake, 1987) where abstracting journals were ranked first and library indices as least important. Other means of CA, such as browsing through bookshelves, use of library indices, reviewing media and bibliographies, received mixed rankings (ranging from 5 to 8) from scholars in the different categories of disciplines. This finding is contrary to findings of Hopkins (1989), who revealed that literary scholars depend of bibliographic tools to a greater extent in seeking information.

3.3 Use of personal card indices and reprint files

Most academic scholars maintain personal card indices which are essentially intended for organising the information gathered in the process of information seeking. This practice makes location of literature quick and more convenient. In this study, respondents were queried as to whether they use their own card index files and reprint files. Tables III and IV

represent the maintenance of these two types of indices.

Respondents also revealed that the collections contain reference cards ranging from 2 to 2,000 while the reprint files contain 13 to 3,000 reprints. Results here are contrary to the findings on studies carried out on pure and applied scientists where a higher percentage indicated maintenance of personal card indices and reprint files.

3.4 Use of assistance in literature searches

In this study an attempt was made to determine the extent of help obtained from assistants, information officers or librarians in looking for literature. Table V summarises the results of the query as to who carries out the literature search.

Table V indicates that approximately 65 per cent of the respondent arts scholars carried out literature surveys themselves. It is evident that the respondents are reluctant to seek for assistance in the process of literature searching. The percentage of scholars resorting to even 25 per cent assistance is less than 15 per cent. This is in accordance with the findings of Steig (1981) and Hopkins (1989), who have also found the reluctance of literary scholars to delegate literature searching which has been attributed to their expectation of serendipitous findings. Assistance acquired through other sources is also very low (4 per cent) where literature is sought from friends and colleagues from abroad. Low assistance obtained from the librarians is in accordance with findings of Eager and Oppenheim (1996), Case (1991)

Table III Use of card index by respondent arts scholars (*n* = 151)

Card index files	Humanities n = 31		Social sciences n = 86		Lang. and culture n = 34		Total N = 151	
	f	%	f	%	f	%	f	%
Maintain own file	8	25.81	31	36.05	9	26.47	48	31.79
Do not maintain own file	23	74.19	55	63.95	25	73.53	103	68.21
Total	31	100.00	86	100.00	34	100.00	151	100.00

Note: f – frequency

Table IV Use of reprint files by respondents for organising relevant literature (*n* = 151)

Reprint files	Humanities n = 31		Social sciences n = 86		Lang. and culture n = 34		Total N = 151	
	f	%	f	%	f	%	f	%
Maintain own reprint file	10	32.26	24	27.91	6	17.65	40	26.49
Do not maintain own reprint file	21	67.74	62	72.09	28	82.35	111	73.51
Total	31	100.00	86	100.00	34	100.00	151	100.00

Note: f – frequency

Table V Use of assistance in literature searches by respondent scholars (*n* = 151)

Mode of assistance	25% %	50% %	75% %	100% %	Total %
By scholar:					
Humanities	–	3.22	25.81	70.97	100
Social sciences	1.16	2.32	41.86	54.65	100
Lang. and culture	–	5.88	11.76	82.35	100
Total	0.66	3.31	31.79	64.24	100
By research assistants:					
Humanities	9.68	–	–	–	9.68
Social sciences	20.93	–	–	–	20.93
Lang. and culture	8.82	–	–	–	8.82
Total	15.89	–	–	–	15.89
By librarian:					
Humanities	12.9	–	–	–	12.9
Social science	18.6	–	1.16	–	19.76
Lang. and culture	5.88	–	–	–	5.88
Total	14.57	–	0.66	–	15.23
Other means:					
Humanities	3.22	–	–	–	3.22
Social sciences	3.49	–	–	–	3.49
Lang. and culture	5.88	–	–	–	5.88
Total	3.97	–	–	–	3.97

and Steig (1981) during studies carried out on historians. Analysis of results indicates that social scientists is the group which delegates information gathering out of the three groups in this survey. This is in agreement with Shoham's (1998) findings.

3.5 Information approaches and sources

In this section an attempt was made to collect data on the information sources of arts scholars and more specifically on how scholars learn of the information they finally use. Using Voigt's (1961) method, an attempt was made to relate the approaches to information to the purpose for which it is sought and, finally, to determine which secondary sources scholars depend on most which lead them to printed information. Voigt (1961) has proposed that purposes for use of literature could be divided into three approaches; namely, current approach, everyday approach and exhaustive approach. Menzel (1964) has added an additional approach to the three approaches suggested by Voigt (1961); namely, "brush up on a field". Table VI summarises mean scores and rank orders indicated by the respondent arts scholars on the query on formal, semi-formal and informal information sources for the four approaches.

All respondents ranked journals first, indicating the importance of these sources to keep up with one's subject field. Maps/atlases and access to databases were considered least important. This pattern is similar to the formal sources in the every-day and brush-up approaches. However, in the exhaustive approach, there is a slight deviation from the other three approaches. In the case of semi-formal sources, all four approaches indicated

Table VI Mean scores and rank order of information sources used by respondent arts scholars by type and approach
($n = 151$)

Type of source	Current approach Mean	Rank	Everyday approach Mean	Rank	Exhaustive approach Mean	Rank	Brush-up approach Mean	Rank	Sum of ranks (SR)	D	D²
Formal sources											
Journals	1.12	1	1.31	1	1.21	1	1.14		4	20	400
Abstr. jls.	3.06	3	3.95	4	2.32	2	2.12		11	13	169
Review publ.	3.97	4	5.01	5	3.34	3	2.98		15	9	81
Current	5.01	5	3.1	3	5.1	5	5.13		18	6	36
Awareness publications											
Textbooks/monographs	2.35	2	2.24	2	4.12	4	4.1		12	12	144
Reference materials	6.13	6	5.89	6	5.97	6	5.83		24	0	0
Maps/atlases	10.74	11	9.92	10	9.78	10	10.11		41	17	289
Government publications	6.81	7	8.1	8	10.8	11	8.15		34	10	100
Indices, guides	8.98	9	8.97	9	6.75	7	9.16		34	10	100
Newspapers	8.2	8	7.02	7	8.92	9	6.86		31	7	49
Access to databases	9.58	10	10.78	11	7.83	8	10.97		40	16	256
									$\sum$264 average = 24		$\sum$1624
Semi-formal sources											
Reports	2.02	2	1.24	1	1.31	1	1.11		5	5	25
Theses	2.85	3	2.67	3	2.86	3	2.68		12	2	4
Conference papers	1.81	1	1.96	2	2.12	2	1.90		7	3	9
Palm-leaf manuscripts	3.92	4	3.74	4	3.95	4	3.89		16	6	36
									$\sum$ 40 average = 10		$\sum$ 74
Informal sources											
Conversations with peers	3.01	3	1.75	1	3.75	3	1.24		8	2	4
Symposia, meetings	2.07	2	3.01	3	1.23	1	2.32		8	2	4
Lectures, seminars	1.14	1	2.43	2	2.51	2	3.82		9	1	1
Communications with peers	3.98	4	3.95	4	3.91	4	3.01		15	5	25
									$\sum$ 40 average = 10		$\sum$ 34

Notes: Formal sources: $\omega = 0.9227$; degrees of freedom = 10; $\chi^2 = 37.9091$ significance: 0.0001. Semi-formal sources: $\omega = 0.925$; degrees of freedom − 3; $\chi^2 = 11.1$ significance: 0.0112. Informal sources: $\omega = 0.425$; degrees of freedom − 3; $\chi^2 = 5.1$ significance: 0.1646

similar trends, with the current approach showing a minor deviation from the rest. As regards to the informal approaches, all four types of approaches indicate different patterns. However, here, communications with peers abroad received the lowest priority, whereas discussions with their local peers and attendance at symposia and meetings, etc., were noted to be more important. In contrast to the findings of McCaghy and Purcell (1972) in their study on use of government publications, respondents in the present study indicated that the use of such materials is trivial. Statistical analysis of results suggests that for formal and semi-formal approaches, all

three categories of respondents are in agreement, whereas for the informal approach, there is no agreement. A noteworthy feature revealed here is the insignificant importance of the "invisible college" indicated by the respondents. However, Orbach (1984) has shown in his study that "invisible college" plays an important role among American historians. In order to determine the most important source of information out of formal, semi-formal and informal approaches, the respondents were separately asked to select the most important one out of the three. Results show that approximately 90 per cent of the respondents have indicated formal information

sources in the form of printed material as the most useful source for them. Semi-formal and informal sources have been rated as less important (<15 per cent). These results are in excellent agreement with the results of surveys carried out on agricultural scientists (Mudannayake, 1987) and chemists (Ileperuma, 1994) in Sri Lanka, indicating high percentages of preferences for formal sources. However, these results contrast the finding of surveys carried out in developed countries. This may be due to the non-availability of efficient and advanced communication facilities such as e-mail, access to Internet, on-line databases, etc.

4. Discussion

When compared to the pure scientist population in the Sri Lankan universities, which is approximately 250, that of arts scholars amount to 415. Yet it is evident that the original research output of arts scholars is comparatively less. However, in-depth studies into the assessment of research output is an area which has been neglected in the Sri Lankan context. The important role citation studies play has been emphasised by Garfield (1980) in his study on arts and humanities. Results obtained in the present study suggest that respondent arts scholars use informal sources to a lesser extent. This survey reveals that arts scholars do not have a tendency to delegate information gathering and this is similar to earlier works by Boakye (1999) on academics in the USA. The existence of an "invisible college" was not distinctly evident. In contrast, the information-gathering behaviour of pure scientists (Ileperuma, 1994) shows that the involvement of the "invisible college" is prominent. This feature, coupled with the inadequacy of available information to arts scholars, could be the reason for the low productivity. It is clear that university libraries, too, have an important role in enhancing the academic output of the institution. A notable observation made during this study is the behaviour of arts scholars in seeking and gathering information where they spend a longer period of time at each visit to the library. This is in contrast to pure scientists (Ileperuma, 1994) who display a habit of

spending less time in the library. The availability of electronic media such as databases, both online and CD-ROM, Internet facility and online access to local databases is likely to have a remarkable impact on the information-gathering behaviour of academic scholars.

References

Bernal, J.D. (1960), "Scientific information and its users", *Aslib Proceedings*, Vol. 12, pp. 423-38.

Boakye, J. (1999), "Users' awareness and use of science and technology collections at the University of Science and Technology (UST) libraries", *Journal of Librarianship and Information Science*, Vol. 31, pp. 204-11.

Case, D.O. (1991), "The collection and use of information by some American historians: a study of motives and methods'', *Library Quarterly*, Vol. 61, pp. 61-82.

Eager, C. and Oppenheim, C. (1996), "An observational method for undertaking user needs studies", *Journal of Librarianship and Information Science*, Vol. 28, pp. 15-23.

Garfield, E. (1980), "Is information retrieval in the Arts and Humanities inherently different from that in Science? The effect that ISI®'s citation index for the Arts and Humanities is expected to have on future scholarship", *Library Quarterly*, Vol. 50, pp. 40-57.

Hopkins, R. (1989), "The information seeking behaviour of literary scholars", *Canadian Library Journal*, Vol. 46, pp. 113-15.

Ileperuma, S. (1994), "Information needs and information gathering behaviour of pure scientists in the universities of Sri Lanka", MLS Thesis, University of Colombo, pp. 1-125.

Line, M.B. (1969), "Information requirements in the Social Sciences: some preliminary considerations", *Journal of Librarianship*, Vol. 1, pp. 1-19.

Line, M.B., Brittain, J.M. and Cranmer, F.A. (1971), "Investigation into the information requirements of the Social Sciences, Research Report No.1: Information requirements of researchers in Social Sciences, Vol. 1 Appendix A", Bath University Library, Bath.

McCaghy, D. and Purcell, G.R. (1972), "Faculty use of Government publications", *College and Research Libraries*, Vol. 33, pp. 7-12.

Menzel, H. (1964), "The Information needs of current scientific research", *Library Quarterly*, Vol. 43, pp. 4-19.

Mudannayake, I. (1987), "Information needs and practices of agricultural scientists in Sri Lanka", MLS Thesis, University of the Philippines, pp. 1-131.

Ogburn, W.F. (1959), "The Social Sciences and the interrelations", in Ranganathan S.R. and Kumar, G. (Eds), *Papers and summary proceedings of the library seminar on Research in Social Sciences, New Delhi, 2-4 January*, Asia Publishing House, New Delhi, pp. 12-36.

Orbach, B. (1984), "Historians: information needs, information seeking and the research process", *Specialisation paper, Graduate School of Library and Information Science*, University of California, Los Angeles, CA.

Rowley, J.E. and Turner, C.D.N. (1978), "The dissemination of information" , Andre Deutch, London, p. 54.

Saitri, R. (1999), "The evolution of user studies", *Libri*, Vol. 49, pp. 132-41.

Shoham, S. (1998), "Scholarly communication: a study of Israeli academic researchers", *Journal of Librarianship and Information Science*, Vol. 30, pp. 113-21.

Slayter, M. (1988), "Social scientists' information needs in the 1980s", *Journal of Documentation*, Vol. 44, pp. 226-37.

Steig, M.F. (1981), "The information needs of Historians", *College and Research Libraries*, Vol. 42 pp. 549-60.

Stone, S. (1982), "Humanities scholars: information needs and uses", *Journal of Documentation*, Vol. 38, pp. 292-313.

Voigt, M.J. (1961), "Scientists' approaches to information" (ACRL Monograph 24), American Library Association, Chicago, IL, pp. 20-33.

Weisman, H.M. (1972), "Information systems services centres", Wiley, New York, NY, p. 13.

White, M.D. (1975), "The communication behaviour of academic economists in research phases", *Library Quarterly*, Vol. 45, pp. 337-54.

Young, H. (1983), "The ALA glossary of library and information science", American Library Association, Chicago, IL, p. 123.