KEKAL ABADI

INFORMATION NEEDS AND USE OF HUMANITIES RESEARCHERS : A BIBLIOMETRIC ANALYSIS AND REVIEW OF LITERATURE

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Abstract: This is a quantitative analysis of 100 references retrieved on information use and needs of humanities researchers. They consist of journal articles (57%), dissertations (26%), conference proceedings (11%) and books (6%). Three journal titles were found to contribute more than a third of the articles on this subject. About 88% (23) of the dissertations are doctoral theses submitted to universities in the United States. About 51% of the retrieved items were published between 1980-1989 which form the peak of studies in this area and the situation stabilizes to an average of about two studies a year in the post 1990 years. The bulk of the studies are about characteristics of information sources used and of these citation studies are predominant. Information needs and use in the field of literature, history and music (62% ; 41) constitute the bulk of studies in this area. The review studies are under three categories; the library and humanities scholars; research and information seeking behaviour of the humanities researchers and the characteristics of sources used.

Abstrak: Kajian ini ialah analisis kuantitatif sejumlah 100 rujukan mengenai penggunaan dan keperluan maklumat penyelidik-penyelidik dalam bidang kemanusiaan. Jumlah rujukan ini terdiri dari artikel jurnal (57%), disertasi (26%), kertas kerja persidangan (11%) dan buku (6%). Tiga tajuk jurnal didapati menyumbangkan lebih dari sepertiga dari artikel-artikel atas perkara ini. Lebih kurang 88% (23) daripada disertasi merupakan tesis kedoktoran yang dihasilkan di universiti-universiti di Amerika Syarikat. Kira-kira 51% daripada bahan yang dikesan telah diterbitkan di antara tahun 1980-1989 yang merupakan tempoh kajian-kajian dalam bidang ini

KANDUNGAN/CONTENTS

memuncak. Keadaan telah stabil kepada purata dua kajian setahun selepas tahun 1990. Sebahagian besar kajian ialah mengenai ciri-ciri sumber-sumber maklumat yang digunakan dan kajian-kajian petikan adalah yang paling banyak. Keperluan dan penggunaan maklumat dalam bidang kesusasteraan, sejarah dan muzik (62%; 41) adalah sebahagian besar kajian dalam bidang ini. Kajian ulasan dapat dibahagi kepada tiga kategori: ilmuan kemanusiaan dan perpustakaan; penyelidikan dan perilaku pencarian maklumat oleh penyelidik-penyelidik ilmu kemanusiaan dan ciri-ciri sumber-sumber yang digunakan.

INTRODUCTION

In times of budget contraints and increasing prices of resources, libraries continue to strive for the answer to the question "who uses what publications, and for what purposes" (Broadus, 1987). It is hoped that the answer to this question would throw some light on the process of information transfer, understand and identify what users need and actually use. It helps libraries plan for an effective service and develop pertinent collection development policies. The review of studies on the information needs and use of scientists and technologists began as early as the 1960s (Menzel, 1960). Since then the characteristics and behaviour of how scientists and technologists obtain information needed for research, how they communicate and disseminate their research results, how communication evolves in research teams, how invisible colleges emerge and how scientific knowledge is diffused into main stream research and literature have become popular subjects of subsequent studies (Polland, 1991). The literature on information needs and use amongst humanities scholars however is modest when compared to those in the sciences and social sciences. The objectives of this review article are twofold. Firstly, to provide a quantitative analysis of the literature which covers studies on information use and needs of humanities scholars and secondly, to discuss the trend and findings of the studies on this subject.

METHODS

The following methods were used to collate all relevant literature which discusses issues on information needs and use of humanities scholars: (a) LISAPlus for literature up to

October 1996; (b) Herubel and Buchanan (1994) *Citation studies in the humanities and social sciences: a selective and annotated bibliography* and (c) references found in relevant literature that were referred to but which were not quoted in either of the first two sources. Details of relevant literature retrieved were input into a database so that quantification of the sources could be undertaken.

RESULTS

1. Trend of Studies on Information Needs and Uses of Humanities Scholars : a Quantitative Approach

A total of 100 items were retrieved out of which six (6%) were books or chapters in books, 26 (26%) were dissertations, 57 (57%) were journal articles and 11 (11%) were proceedings of conferences (Table 1). The reference pattern revealed a ratio of one book to nine articles or one book to four dissertations for studies in this area.

The journals which published articles on this subject were then retrieved and ranked in accordance to the frequency of coverage. This would indicate the important journals in this area of study. Table 2 indicates a total of 57 journal articles covered this subject and were published in 29 journal titles. Three journal titles contributed to more than a third (21 titles) of the total articles on this subject contributing between six to eight articles each. *Library Quarterly* topped the list with eight articles, followed by *Collection Management* with seven articles and *College and Research Libraries* with six articles. The medium contributors comprised of seven journals which altogether published about a third of the articles (17 titles) on this subject. Each contributed between two to

three articles. The journals in this group are *Journal of Librarianship, Library & Information Science, Serials Librarian* (three articles each), *Journal of Information & Library Science, International Library Review, Notes: Journal of the Music Library Association* and *Reference Librarian* (two articles each). A total of 19 other titles constituted the low contributors with one article each. Table 2 also indicates that by covering the six ranked journal titles, a library would be able to obtain more

than half of the total relevant references on this subject.

Table 1 indicates that dissertations constitute a substantial portion (26%) of studies on information needs and use in the humanities. Bibliographic details of the dissertations indicated that almost all were submitted to American universities and the majority (88%) were doctoral theses (Table 3).

Table 1: References on Information Needs and Use of Humanities Scholars

Type of References	Total (N=100)	%
Books	6	6
Dissertations	26	26
Journal articles	57	57
Proceedings/Reports	11	11

Table 2: Frequency of Journal Titles Covering the Subject Information Needs and Use of Humanities Scholars

No.	Journal Titles	Frequency N=57	Cumulative Total	%
1	*Library Quarterly*	8	8	14.28
1	*Collection Management*	7	15	12.50
1	*College & Research Libraries*	6	21	10.71
3	*Journal of Librarianship*	3	24	5.36
	Library & Information Science	3	27	5.36
	Serials Librarian	3	30	5.36
4	*Journal of Information & Library Science*	2	32	3.57
	International Library Review	2	34	3.57
	Notes: J. Music Library Association	2	36	3.57
	Reference Librarian	2	38	3.57
19	Others (contributing one each)	19	57	32.15

Table 3: Institutional distribution of dissertation submission

Total N=26	Masters N=4	Doctorate N=22	Universities
3	-	3	University of Illinois
3	2	1	University of North Carolina
3	1	2	University of Chicago
3	-	3	Case Western Reserve University
1	-	1	Rutgers State University of New Jersey
1	-	1	University of Minnesota
1	-	1	University of Pittsburgh
1	-	1	Emory University
1	-	1	University of Toronto
1	-	1	University of California
1	-	1	University of Michigan
2	-	2	Indiana University
1	-	1	Kent State University
1	-	1	Columbia University
1	1	-	University of Malaya
1	-	1	University of Western Ontario
1	-	1	Kansas State College

The 100 references retrieved were grouped into four broad categories: (a) Those discussing the use of the library and information resources by humanities scholars ; (b) Those describing the information seeking behaviour of humanities scholars; (c) Those describing the characteristics of information sources used by the humanities scholars within specific disciplines; and (d) Those studying the citation patterns of humanities scholars in general or in comparison with scholars from other disciplines.

Table 4 shows the breakdown of the 100 references by these four broad categories. The distribution of studies indicated that over half

(66%) of the total studies dealt with the characteristics of the information sources used within specific disciplines (Category (c)). The remaining studies dealt with citation pattern amongst humanities scholars in general (Category (d) (17%); humanities scholars use of library and information sources in general and information seeking behaviour of humanities scholars (7%). The overall total of references distributed between pre 1970s to the current date indicated that studies on this subject grew gradually from 11% in the pre 1970s, peaked to 51% between 1980 and 1989 and dropped to 16% in the post 1990s.

Table 4: Studies by Four Broad Categories

No.	Category	Pre 70s	1970-1979	1980-1989	Post 90s	Total
(a)	Humanities scholars use of library and information resources	2	1	5	2	10
(b)	Information seeking behaviour of humanities scholars	-	2	4	1	7
(c)	Characteristics of information sources used within specific disciplines	8	16	32	10	66
(d)	Information use by humanities scholars in general or compared to those in other disciplines	1	2	10	4	17
	Total	11	21	51	17	100

The studies which dealt with the characteristics of information sources used amongst the humanities scholars (Category (c)) was further broken down by subjects (Table 5). More than a third of the total studies was in the area of literature (18; 27.69%), followed by studies in history and music. The rest of the studies covered scholars' information needs and use in archaeology, fine arts, literature, philology, religion and speech. On the whole the retrieved documents indicated that studies on this subject have begun to stabilise to about two studies per year in the 1990s.

2. Studies on Information Needs and Use of Humanities Scholars

For this section, the studies are broadly categorised into three groups: (a) studies which touch on the subject of the library and humanities scholars; (b) research and

information seeking behaviour of humanities scholars; and (c) the characteristics of information sources used.

(a) The Library and Humanities Scholars

To the humanities scholars libraries are their laboratories. Humanities scholars are the most book-bound in the world of scholarship (Weintraub, 1980). Their research is very dependent on reading large amounts of resources and in some disciplines the use of original texts is essential. As a result the humanities scholars are very library dependent and it is expected that there should be a close relationship between the library collection and the humanities scholars use of it (Fabian, 1986). To the humanities scholars, "libraries are books – the basic instrument of humanists inquiry is the book" (Stone 1982).

Table 5: Subject Coverage of Studies Relating to the Characteristics of Information Sources Used by Humanities Scholars

Subjects	Pre 70s	1970-1979	1980-1989	Post 90s	Total	%
Archaeology	-	1	1	-	2	3.08
Fine Arts	1	1	1	1	4	6.15
General	-	1	5	1	7	10.77
History	2	3	8	2	15	21.54
Literature	1	5	9	3	18	27.69
Musicology	1	3	3	1	8	12.31
Philology	1	-	-	-	1	1.54
Philosophy	-	-	3	2	5	7.69
Religion	1	2	2	-	5	7.69
Speech	1	-	-	-	1	1.54
Total	8	16	32	10	66	100

The library therefore must perform a dual function, firstly by providing the researcher with resources in their original form and secondly resources which contain results of researches. Humanities research does not only involve consulting and digesting a number of books and periodicals but it also involves the act of continuous reading. Their research experiments involve the use of literature in the widest sense. Literature in this case is akin to the scientists' laboratory equipment. In carrying out their "experimentation", humanities researchers require sufficient equipment (in this case, literature) and such equipment must be available whenever it is needed. The exact identification of what is needed by humanities researchers is problematic because the knowledge frontier in this field is less visible and much more diffused (Stone, 1982). Consequently, humanities researchers require a multitude of primary and secondary resources which they must be able to effectively access during the research process. As a result it is often found that the humanities scholars use resources from a number of special collections and libraries.

Atkinson (1995) observed that the humanities scholars are highly dependent upon bibliographical sources in order to identify related and relevant works. Hence bibliographic descriptions given to resources relevant to their studies should be more detailed. Libraries can help by authenticating original sources. This is especially true in researches that need to access all editions of a text from manuscripts to the latest printed edition, in original languages and translations. As such the production of catalogues of private collections, specialised subject bibliographies, lists of societal publications becomes valuable reference sources to the humanities scholars (Stevens, 1956). In this context, libraries can play their role as publishers of such reference tools.

Humanities scholarship is the result of solitary research and study. Most do not delegate literature searching and often do not obtain enough research funds to hire research assistants. Stone (1982) concludes that this behaviour may be the result of the problems humanists faced in communicating their exact needs to librarians. Most therefore, do not

consider librarians as a research resource and are often self reliant at finding books and journals (Wiberley & Jones, 1989; Burnette, Gillis & Cochran, 1994). Most often librarians are only consulted when scholars need to use archival materials, manuscripts or very specialised collections.

Another problem observed by Wilson and Eustis (1981) based on a survey of humanities scholars at the Virginia Polytechnic Institute and State University was that humanities scholars did perceive a link between the library and their scholarly output, but they generally did not restrict their research to only available resources. Wilson and Eustis also concluded that there was a tendency for the libraries under study to fall short in fulfilling the needs of researchers especially when their research requires specific types of resources. Stone (1982) observed that library services such as inter-library loans were important to humanities scholars because of the wide range of materials required which a single university library could not be expected to supply. Fabian (1986) observed that humanities scholars also required adequate reprography services since there was a need to bring together texts from various sources. Reprography services in this case extend beyond making photocopies to include reproductions in microprints and photography.

(b) Research and Information Seeking Behaviour of Humanities Scholars

The humanities scholars tended to work alone (Garfield, 1980) rather than in teams. Wiberley and Jones (1989) found that out of more than 172 publications claimed by 11 humanities scholars they monitored, only eight were co-authored. This tendency to work alone reflected the nature of humanities scholarship (Stone, 1982). The work of humanities researchers encompasses our cultural heritage (Garfield, 1980) which is embodied in art, music, religion, philosophy, language and literature and which is not easily superseded as scientific works are. Each work in the humanities is contributive to the whole body of knowledge. There is less emphasis on empirical evidence (Frost, 1979) as humanistic knowledge is the result of interpreting "anew in the context of the individual's total experience and understanding" (Stone, 1982).

Humanities scholars use a wider and more diverse body of literature than that used by the natural scientists, in terms of subject matter, time span and form (Stevens, 1956). In addition to books and journals, they often use newspapers, artifacts, antiquities, etc., and the time span of documents studied extend from the earliest to current years since a recent document may present the most up to date perception of a particular set of events in the light of both past and present evidence.

The channels humanities scholars use to collect information are also diverse. These include reading, talking with other colleagues, listening to lectures, studying files, conducting surveys, analysing archival works, examining artifacts, etc. However, the printed work still remains the most used medium (Case, 1986). Scholars obtained relevant information from "footnotes, personal recommendations from other scholars, serendipitious discovery, browsing personal bibliographic files" which did not involve use of the usual reference tools found in libraries (Stoan, 1984). A number of studies have indicated that scholars often found relevant materials from bibliographies and footnotes of books and journals they read (Stevens, 1956; Broadbent, 1986). Humanities scholars seldom use indexes and abstracts to collect their materials since these are considerably less complete and less adequate than those in the natural sciences. Smaller and selective bibliographies in a specific field or period were preferred (Wiberley & Jones, 1989). Apart from relying on library collections, humanities scholars are more likely to own comprehensive personal collections (Soper, 1976).

(c) Characteristics of Sources Used by Humanities Scholars

The majority of studies in this category comprise of citation and bibliographic analysis of sources used by humanities scholars.

(i) The format of sources used

Although a variety of materials are used in their research, the humanities scholars are found to be comparatively more monograph oriented than other disciplines [Stern (1983) 82.7%; Budd (1986) 64%; Broadus (1987) 67.1%; Goi (1997) 52%]. Even when special subject fields are

studied the trend was found to be similar. Cullars in a series of studies on the citation characteristics of literary scholarship amongst the British' and American (1985), German and French (1989), Italian and Spanish (1990) humanities researchers confirmed greater number of citations to monographs. Stern (1983) concluded that literary research relied heavily on research materials published in books. Most studies indicated a smaller percentage of journal use compared to books [Budd (1986) 26.7%; Goi (1997) 23.55%; Heinzkill (1980) 20%; Stern (1983) 15.1%]. The interdisciplinary nature of researches in recent years has seen an increase in the use of journal literature. This characteristic of resource use is similarly indicated in collection use studies. Broadus (1987) indicated that there was a stronger preference for monographs requested by humanities scholars from the National Humanities Center during the first year of the study which increased in the second year to 38.6%. The Pearson Product Moment Correlation for the two years was .909 which suggested that scholars in the humanities were consistent in their use of monographs. Disciplines such as the fine arts, music and archaeology were more apt to cite journal articles than books (Cullars, 1992). Dissertations were not significantly used by humanities researchers. This may be due to the assumption that worthwhile thesis material would be reworked into journal articles or monographs (Cullars, 1989). Also, most libraries do not collect and purchase theses which are often difficult to obtain through inter-library loans (Cullars, 1992). Like the dissertations the usage of manuscripts is also low and greatly dependent on the discipline. Those in the disciplines with stronger historical dimensions, oriented towards ancient literature and philological studies tended to use more manuscripts. For these types of research the use of monographic literature is often supplemented with manuscript sources.

(ii) Type of materials used

There is a strong tendency for humanities scholars to use primary over secondary sources. Besides scholarly literature, humanities scholars often refer to works of art, poems, photographs, paintings, musical scores (Garfield, 1980).

Literary research preference is for original sources such as collected letters as well as literary texts (Cullars, 1985, Stern, 1983). Cullars (1989, 1990) found that over 45% of all citations used by humanities scholars in the field of literature were to primary sources in the form of monographic literature. Even in their writings for journals, humanities scholars reportedly used more primary sources (Wiberley, 1979: 65%). Stern (1983) indicated that research on contemporary authors depended on the texts themselves and the more contemporary the author, the greater use is made of primary sources, since there are fewer critical works available to researchers.

(iii) The age of materials used

Humanities scholars are more likely to use older materials than non-humanists. Older sources, both primary and secondary, continued to be cited to a greater degree than studies in the sciences and social sciences. When comparing the citation patterns of scientists and the humanists, Garfield (1980) found that from the 300 science authors who were most cited between 1961 and 1976, the oldest author was born in 1899. Whereas amongst the 100 authors most cited in the humanities journals in 1977 and 1978, the oldest author was born in the 9th century B.C. and nearly 60% of the top 300 most cited authors in the humanities were born before 1900. This indicates that works by humanities scholars of previous decades or centuries were not superseded or discarded and that works in these disciplines were not susceptible to rapid obsolescence (Koenig, 1978; Frost, 1979; Weintraub, 1980). Humanities scholars are more cumulative about their use of literature (Garfield, 1980). Interest in a work or a period may remain dormant until it is reawakened in some way, so that previously unheeded materials may assume or resume importance. For all disciplines in the humanities, the greatest number of citations was made within 20 years (Cullars, 1989; Stern, 1983) and 50 years (Budd, 1986). Stern (1983) found that over 20% of citations to American literary works were ten years old or less.

(iv) Language

Humanities scholars are likely to use materials in foreign languages compared to researchers in

other disciplines. The findings of literary scholarship in German (75%), French (84.4%), Italian (65.7%) and Spanish (83.7%) literature demonstrated a high percentage of citations to material in the native languages. This supports the contention that if the language of the article is the same as that of the topic, 90% of all citations would be in that language, while if the language of the article differs from the topic, 60% of the citations would be to the languages of the topic and 30% to the native language of the author of the article (Cullars, 1992).

(v) Subject dispersion

The humanities scholar is more likely to use material from a broad range of subjects. The study of references used in American literature emanates from five broad subject areas, which comprise of American literature, other literature, other humanities disciplines, disciplines of sciences and social sciences (Budd, 1986). Studies on references used by fine arts researchers indicated references drawn from diverse subject areas of literature, history, biographical and religious sources (Cullars, 1992).

(vi) Categorisation of citing fuctions

Frost (1997) studied citations in German literary critical works qualitatively and quantitatively. She found that German literary scholars made use of primary literary texts to support an opinion or interpretation. Works of other scholars were used positively either to support their own work or to refer readers to additional readings. Negative citation function was seldom used by humanities scholars. Budd (1986) reported 3.5% positive compared to 1.6% negative citations, whereas Cullars (1990) found 5.7% positive and 3.6% negative citations. These studies indicate that the greatest number of citations were value free.

CONCLUSION

Studies on information needs and use have frequently been approached in two ways. First, directly by evaluating the adequacy of a library's collection and this involves analysing data collected from circulation records, in-house use, inter-library loan requests, comparing collection against bibliographies or other collections and citation to materials held within the library's collection (Kelland & Young, 1994; Sylvia and Lesher, 1995). Second, indirectly by surveying the users and analyzing bibliographic citations of users' publications (Broadus, 1987). It is found that citation studies tend to predominate and this holds true for studies on the information needs and use of humanities researchers. This may be because citation counts not only help identify facets of a subject field but also produce empirical data for an objective quantitative judgement about the ability of a collection to support research (Heidenwolf, 1994). The results of previous studies have helped libraries understand the nature of the humanities research process, the need for access to a wider selection of materials, the relevance of detailed catalogues of sources held, the need to collect specialised materials (such as lists of society publications, book auction records, art catalogues) which are potential research resources and a knowledgable librarian who can help locate relevant, original sources available in other collections and libraries. The results from the studies also indicate other possible research areas such as user needs and use in other specific humanities disciplines neglected by previous studies and the possible use of qualitative techniques to solicit meaningful answers from users.

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