Information Seeking and Source Availability in Gerontology Research

Don A. Wicks, Ph.D.

Associate Professor School of Library & Information Science Kent State University dwicks@slis.kent.edu

and

Edith Scarletto, M.L.I.S.

Resident Librarian for Map/Reference Services
Libraries and Media Services
Kent State University
escarlet@kent.edu

A Paper Presented to the 33rd Annual Conference of the

Canadian Association for Information Science/L'association canadienne des sciences d l'information (CAIS/ACSI) 2005 Annual Conference, London, ON, 2-4 June 2005

Abstract: This paper reports on a study of information seeking and resource availability in the field of gerontology. Thirteen scholars were asked to describe their information seeking behaviour, and subsequent success in acquiring resources to support their teaching and research in this area. Library resources available to these scholars were examined. Findings indicate that scholars rely heavily on available electronic resources. The findings also raise questions regarding how collection development is coordinated for a cross-disciplinary field such as gerontology.

Résumé : Cet article présente une étude sur la recherche d'information et la disponibilité des ressources dans le domaine de la gérontologie. On a demandé à treize chercheurs de décrire leur comportement informationnel de recherche et leur succès subséquents à obtenir des ressources pour étayer leurs enseignements et leurs recherches dans ce domaine. Les ressources des bibliothèques disponibles pour ces chercheurs sont examinées. Les résultats indiquent que les chercheurs se référent fortement aux ressources électroniques disponibles. Les résultats soulèvent aussi des questions en ce qui concerne la manière dont le développement de la collection est coordonné pour un domaine interdisciplinaire comme la gérontologie.

The rising numbers of seniors as a proportion of the North American population has attracted the attention of many disciplines. These scholars are engaged in teaching and research related to older adults, sometimes individually within their own disciplines and sometimes in multidisciplinary courses and research projects. This paper reports on a study carried out at Kent State University, a Carnegie Research II Research Institution with 36,000 students and between 600-700 faculty located on eight campuses in north-east Ohio. The project complements the earlier studies of Wicks (2004; also reported to CAIS/ACSI conferences in 1999, 2001, 2003) on the information seeking of older adults, as well as more recent research by the Wicks, Spohn, and Scarletto (2004) on multi-disciplinary aspects of collection development. It focuses on the gerontological researchers rather than the older adults themselves and on the adequacy of library resources at their institution to support such research. The purpose was to determine if there was a match between the information needs of gerontological researchers and the information provided, and to identify appropriate interventions that would improve the match, if needed.

The Literature and Methodology

Interdisciplinary areas of study are found more and more often in academic communities. They blend population groups subject to study, interrelated disciplines, and scholars with varied interests. Gerontology, Women's Studies, Men's Studies, and Child Development are similar kinds of interdisciplinary areas which focus on many aspects of one population group. An explanation of how interdisciplinary areas of study evolve from traditional areas was examined by Fujigaki (2002) within the scientific community for biophysics and environmental science.

That report gives three reasons for the formation: the scientific community itself decides to create a new field, there are needs for collaboration among areas of study recognized by its participants and spurred by a social need, and a need for public or consumer information arises (Fujigaki 2002, p.65). Problems that arise from these new interdisciplinary areas include the differences in defining valid research among disciplines and difficulties in communication between the disciplines (Fujigaki 2002, p.73). Spanner found similar criticism from the interdisciplinary scholars he studied, including comprehending the differences in terminology between disciplines, and insufficient time to develop collaborative relationships, and inadequate library and information resources. He used interviews to study interdisciplinary scholars to find out what challenges they faced compared to traditional single disciplines (Spanner 2001, p.352).

Even though scholars experience difficulty in adapting to interdisciplinary studies, they have often gone on to create fairly mature interdisciplinary fields with literature of their own. In this study, the authors wanted to examine the resource base of one institution for such an interdisciplinary field, namely gerontology. The first step was to examine the information needs and uses of researchers in gerontology. Bird and Heekan (1994) examined the resources scholars in the field of aging seek and especially their use of electronic sources. They indicate some of the same disciplinary interest in the topic of aging or gerontology that we found in our interviews and in the concentrations of the Kent State collection. The top five disciplines interested in aging materials (according to Bird and Heekan) included nursing, medicine (which we combined

into one category), social work, psychology and sociology, public health, biology and education (Bird & Heekan 1994, p.31). They also found interest in the same indexing and abstracting services favored by our interview subjects, MEDLINE and PsycInfo (formerly Psychological Abstracts) (Bird & Heekan 1994, p.33).

The next task was to examine the collections that the researchers were using. We chose both to ask users to evaluate the collection based on their perceived needs and uses, while also analyzing a sample of the materials. Dobson calls this the use versus materials approach (Dobson, Kuskowski &Gerhard 1996, p.281) which she encourages for interdisciplinary collection evaluation. She also suggests the subject analysis method of looking at the usefulness of a collection to its users (Dobson, Kuskowski &Gerhard 1996, p.282). For this study, we used the subject concentrations set up by Post (1992, p.35) to find the disciplinary distribution of our gerontology and aging materials. Taking a look at both of these examinations of the collections can inform future collection development, as well as help define the programs of the institution.

A significant part of the publications researchers cite is journal literature. Smith (2003) studied the change in literature usage by faculty comparing those in electronic and print formats. She found that among those that read weekly journal articles more science than social science faculty members read journal articles in electronic format (Smith 2003, p.164). She also found that rank somewhat indicated whether electronic journals from the library were read instead of personal subscriptions. Faculty on the whole seemed to be more likely to read personal subscriptions to journal articles instead of articles provided by the library (Smith 2003, p.166). This fit with at least one of our interview subjects, who indicated he did not go to the library often because he had adequate personal subscriptions to his discipline's literature, while others of our subjects, admittedly of a lower rank and slightly younger, indicated they enjoyed the large quantity of journal literature available online. This freed them up to be more productive.

While researchers have their own information needs and uses, the objects of their study have different needs. Williamson (1999) summarizes some points of concern with older adults' information needs and uses. She cites an early study which encourages librarians to enable the user by teaching needed skills which will give confidence and independence to the user (Williamson 1999, p.4). She indicated that older adults want "health, and then income and finance" (Williamson 1999, p.5) along with housing arrangements and consumer information. These topics *were* represented in lesser numbers in our collection snap shot. It should be noted that Williamson was looking at needs that older adults generally seek in a public library environment, not an academic one.

These ideas are also illustrated by an article by Mabry (2003) in *American Libraries*. She gives advice to information providers similar to Williamson's, including sensitivity, showing respect, being patient, and enabling with skills instead of taking over a search (Mabry 2003, p. 64). As libraries migrate many of their services to the online environment, senior users encounter additional needs. The American Library Association has released *Library Technology Reports* (2004) with tips for library service to seniors with regards to computers and electronic communication and information. ALA lists needs for basic introduction and instruction through adaptive technologies, introductory classes just for seniors, search engines, email and locating important information through the internet, such as government documents and genealogies

(ALA 2004, p. 39). Seniors echo this sentiment in Robertson's (2001) interviews. They are looking not only for information, but a sense of place that is both welcoming and accommodating to their physical needs (Robertson 2001, p.304). They are also looking for the basic classes, introduction to the internet, and patience in instruction mentioned above (Robertson 2001, p.305).

In summary, this project used a case study approach which employed both interviews and content analysis as methods. In one part of the research, thirteen scholars working in the field of gerontology were asked to describe their information needs, information seeking behaviour, and subsequent success as they acquired resources to support their teaching and research in this area. As such, that part of the study derives from the sense-making theoretical model where participants reported on their information seeking as it related to a particular situational need. A second part of the study examined library resources available to these scholars at their university. Details of these approaches are outlined below.

The Interviews

To identify participants, the researchers gathered a list of faculty members known to be working in the field of gerontology. The names were gathered from personal awareness, a list of participants in a short-lived gerontology interest group, and from referrals made by initial interview subjects. Of the original list of approximately two dozen, 12 scholars and one staff member were interviewed about the sources they used when working on gerontology projects. The goal was to represent as many departments as possible. The staff member, who holds a master's degree in Education, has administrative responsibilities for gerontology programs at the University. Though teaching and research are not her primary responsibilities, she does assist researchers in recruiting subjects and in survey design. The other 12 participants came from eight different disciplines (see Table 1). The 12 faculty interviewed represent approximately half of the total Kent State University faculty who had previously been identified as doing some form of research or teaching in gerontology. Disciplines *not* captured in the sample included Biology, Education, and Exercise, Leisure and Sport. ¹

Two of the Family and Consumer Studies faculty consider themselves "gerontologists". For the others, gerontology is one interest among others in their teaching and research activities. Participants were asked about their educational background, discipline and research interest in older adults. They then described a recent research project or teaching experience in the area of gerontology and the resources they used to prepare for that project or experience. Specifically, they were asked about their use of journal indexes, the availability of print and electronic journals, and their use of inter-library loan and reference services. They were also questioned about their collaboration with scholars outside their discipline, about funding sources, and,

¹ The matter of sample size in qualitative research has given rise to much discussion. Sandelowski (1995) emphasized that size is relative to the quality of information and purpose of the study. Sorin-Peters (2004) explained that the approach in qualitative research is to ask 'how' not 'why' and to adopt the role of a learner rather than a tester. Brock and Sergeant (2002) defined a "small" sample size as 30 or fewer while Crabtree and Miller (1992) suggested that 12 to 20 sampling units are common when dealing with a non-homogeneous sample. Bradley (1993) concluded that the appropriate sample size is reached when saturation of information is observed.

finally, about the positive and negative influences they experienced in their work in this area at the University.

Faculty Disciplines

Table 1

Interviewed	Discipline			
3	Family & Consumer Studies			
2	Psychology			
2	Speech Pathology & Audiology			
1	Nursing			
1	Sociology			
1	Philosophy			
1	Communication Studies			
1	Library & Information Science			

The research interests of this group are diverse, covering such areas as caregiving, social cognition of older adults, relational communication, osteoporosis, bioethics and end-of-life issues, chronic illness in older adults, the voice and aging, medical sociology, speech language, prevention of the effects of aging, nursing care, health psychology, access by disadvantaged populations to digital media, and programming for seniors.

More specifically, research topics the scholars have investigated are as follows:

- grandparents raising children
- older mothers of adults with mental illness
- web information on quality care
- care giving of stroke victims
- health education literacy
- mass media campaigns concerning depression
- alcohol use in women over 65
- osteoporosis in women 50 and older
- surrogate decision making
- older couples where one partner has diabetes
- the voice and the aging process
- health aging and body composition
- post traumatic stress disorder in older adults recovering from knee replacement surgery
- access and use of technology by older adults
- health literacy

The interviewees spoke of many sources used to inform the research and teaching processes. Networking with colleagues on campus and beyond was mentioned by ten people. This took the form of email communication, connecting at conferences, working together on committees, and other activities. The same number of subjects stated that they used inter-library loan to obtain desired materials. At least eight people spoke of their use of online journals, and seven mentioned using indexing and abstracting services. It should be pointed out that index and journal use (whether electronic or print) was also implied in some of the comments. The most frequently mentioned indexes used were PsycINFO and MEDLINE. Less frequently identified sources were library staff members (one professor in Speech & Audiology said he had not consulted with reference staff for "decades"), other libraries, government documents, and personal collections. Several stated they used Internet search engines (e.g., Google) for general searching for material. Table 2 reports the number of professors who identified particular sources.

Table 2
Sources Used

Number				
of Professors	Source			
10	networking (through email, conferences, committees, etc.)			
10	Inter-Library Loan / Document Delivery			
8	journals - electronic			
7	indexes and abstracts			
	Most mentioned:			
	Medline			
	PsycINFO			
	Other mentioned:			
	CINAHL			
	ERIC			
	AgeLine			
	Sociological Abstracts			
	Philosophy Index			
	Academic Search Premier			
	Communication Mass Media Complete			
	LISA			
	Library Literature			
	Information Science Abstracts			
5	Journals - print			
5	Books			
4	Library staff			
4	Other Library			
4	Government documents			
3	Personal collection			
6	Other (Google/Internet/WWW, Public Service Announcement			

We asked what advantages and what frustrations they had experienced in their seeking after information for gerontology research and teaching. A recurring theme was the appreciation of online access to journal literature. A Speech Pathology and Audiology professor said, "I really do like the electronic journals," and a Psychology professor exclaimed, "The E-journal access is a wonderful thing. It's made life infinitely easier...[It's an] an enormous benefit." Though only four said they sought the help of library staff to access information, those professors were most grateful. A gerontologist told of how librarians had helped him locate and learn how to use measurement instruments. The Library and Information Science professor had approached library staff for access to expensive databases and had found staff "amazingly" willing to help. The ability to make connections with area scholars in nearby research hospitals was appreciated by a Psychology professor. He had found that through these connections there was "phenomenal" access to senior populations who could serve as subjects. The fact that there were identifiable gerontologists on campus and credit and non-credit programs in gerontology available to students and the community was seen by the gerontology program administrator as a benefit to scholarship and teaching at the University.

Participants also expressed their frustrations when it came to gathering information in this area of study. The professor from Nursing had not been able to get help in the Library with government documents when she needed it. The Library and Information Science professor had some difficulty locating and using data collections, would like to see more help available in making use of GIS, and observed that the book collection in the area of information seeking behaviour and technology was weak. The gerontology administrator, a Family and Consumer Studies professor, and a Psychology faculty member, all expressed a desire to see better coordination and collaboration among scholars at the University. One Speech Pathology and Audiology professor had some difficulty tracking down articles from lesser known journals, and another had found that some books were impossible to obtain from state-wide consortia institutions.

Participant Comments

Capturing comments made by participants is always interesting and often revealing. Comments about online availability of resources were informing about how such access has influenced use of the physical library building:

I worry about maybe getting too fat and not ever walking over to the library. [laughing] I'm sort of serious. There is something special about going over to the library, and I find myself doing that much less now than I ever did in the past. (Gerontology professor)

Getting information without having to physically go to the library is the mainstay of our research trajectory; so it's been improved over the years. (Nursing professor)

I want to tell you the honest to goodness truth: I've hardly ever set foot in that library

anymore, 'cause the part I do, I do online. (Psychology professor)

Some were confident of their ability to get along without the library or library staff helping in a direct way, while others were apologetic:

The reason I don't use the library is not because I don't like the library [laughter] – don't take it personally – but it's, uh, uh, there's no point for me to be there, you know, because it is a small enough area that I'm familiar with most of what's out there; either I have it myself or I can get it very easily. (Speech Pathology and Audiology professor)

I don't think I have ever used the reference librarian here to help me sort of narrow down a focus topic. I pretty much got that under my belt [laughter], I think. (Sociology professor)

Would I, could I, and should I have contacted someone in the library to, say, help me answer this question *[on chronic disease in the USA]*: I think so. (Philosophy professor)

Another subject commented on the need for researchers to develop multi-disciplinary tools for gerontology studies:

Some kind of centralization of measurements they use in gerontological research, social science and health care research in general would be good. (Gerontology professor)

Collection Analysis Snap Shot

The next step in the project was to examine the breadth of interdisciplinary coverage of gerontology/ older adult research materials in the library collection. Kent State University Libraries have a centralized collection and does not have a subject specific library for gerontology materials. The online catalog contains materials from the seven university campus libraries and five Kent Campus branch, or subject specific libraries (Architecture, Chemistry/Physics, Fashion, Map, Math, and Music).

Using the library's online catalogue, a subject search was performed using the Library of Congress Subject Heading, "gerontology" and its SEE ALSO terms "aging," "geriatrics," "older people". The results of the search were exported into the online bibliographic utility, RefWorks (http://www.refworks.com). Duplicate items, unpublished theses or dissertations, journals, and non-human research materials were removed from the list of materials. The Library of Congress Subject Headings assigned to each of the remaining records were examined and coded into one of the twenty concentration areas described by Joyce Post in *Gerontology and Geriatric Libraries and Collections in the United States and Canada* (Table 8, p.47 1992).

Each record was assigned only one concentration area, based on the LC subject headings listed. Because the subjects of gerontology, aging and geriatrics were the query words, they were disregarded for additional subjects unless no other subject was listed. In the case of only query words in a subject heading, the materials were assigned a "research" code, as they were

considered of research value to a broad range of disciplines who study older adults. Additionally, social gerontology was assigned to the "research" code. Other coding decisions included adding personal narratives on aging or popular materials to the code "consumer materials;" adding the concentration code of "study and teaching of gerontology for higher education students or faculty" to the list of concentrations; and removing the concentration of "government publications" and coding the material based on its subject headings.

The distribution of results is displayed in Table 3. The main strengths represent research in gerontology/ social gerontology, study and teaching of gerontology, and medicine, followed by psychology, caregiving, health care, physiology and consumer materials. These subject concentrations correspond to the large academic areas at Kent State in gerontology, nursing, and psychology. The high number of research and readings in these subject areas is reasonable. Also, there are a large number of materials examining the state of education for the profession, and this also could be explained by the large numbers of participants in these programs. It should be noted that these numbers are a sample of the collection, not a comprehensive count of all materials relating to older adults. Gerontology is a mature interdisciplinary area as indicated by the number of materials in the "research" code, but the very nature of interdisciplinary subjects indicates that we could not have captured all related materials through the method we chose

Table 3.

Concentration Areas of the Collection (n=1034)

	Number	Percent
Concentration		
Research in and for social gerontology/ gerontology and statistical methods, etc.	242	23.40
Study and teaching of gerontology for higher education students or faculty, etc.	179	17.31
Medicine, nursing, rehabilitation, etc.	125	12.09
Psychology, mental health, counseling, etc.	88	8.51
Caregiving, social services, family issues, etc.	57	5.51
Health care, health promotion, etc.	55	5.32
Physiology, aging process, molecular biology, etc.	50	4.84
Consumer materials, personal narratives etc.	50	4.84
Anthropology, ethnicity, cross-cultural studies, etc.	27	2.61
Policy Issues	26	2.51
Medicare/ medicade, insurance, social security, legal, financial, etc.	25	2.42
Retirement	20	1.93
International materials	19	1.84
Housing, living arrangements, environment and product design, etc.	15	1.45
Long term care	11	1.06
Demographic, census, statistical data, etc.	11	1.06
Education, program development, planning, etc.	8	0.77
Aging network reports, documents, etc.	8	0.77
Employment	7	0.68
Dying, death, bereavement	6	0.58
Administration, including nursing homes, retirement facilities, etc.	5	0.48

Journal Holdings Snap Shot

The *Journal Citation Reports* was used to assess the strength of the gerontology journal collection. *JCR* ranks twenty-three gerontology journals according to their impact factor (average number of current citations to articles a journal published in the previous two years). The University library was checked for print and electronic holdings of these journals. It was found that the University holds 21 (91.3%) of the journals, 17 in print format and 12 with electronic access (see Table 4). Gerontology scholars at Kent State appear to have very good access to journals in this field.

Table 4

Holdings of Gerontology Journals

Total available	=	21	91.3%
Both electronic & print	=	8	34.8% (2 print runs are not current)
Electronic	=	12	52.2% (all are available full text)
Print	=	17	73.9%
Electronic only	=	4	17.4%
Print only	=	9	39.1%
Unavailable	=	2	8.7% (ranked #2 and #8)

Conclusions

Researchers and teachers at Kent State University appear to have good access to gerontology resources. The examination of the collection showed collection strength in the subject areas most related to the program concentrations at the University.

The Library holds almost all of the top-ranked journals in the field and also provides considerable electronic access to these and other journals. Its participation in the state-wide "OhioLINK" collaboration greatly supplements its local collections and the University's proximity to several other academic and medical institutions in north-east Ohio means that faculty has ready access to quality resources and subject pools.

How this access compares to other universities is a matter for another study. Similarly, how the number of scholars interested in gerontology compares to interest in other similarly-sized institutions is open to investigation. Among the faculty interviewed, there are mixed results when it comes to collaboration. Some find ways to identify and work with colleagues in other departments and others decry the lack of coordination and communication across disciplines. Multi-disciplinary collaboration is increasingly acknowledged as desirable, yet often is left to

individual effort. At Kent State an "Interdisciplinary Task Force on Gerontology" was begun and briefly met in the early 2000s but has since disappeared. The time and effort it takes to organize and attend the necessary gatherings is difficult to muster. Indeed, interviewees frequently cited the lack of time as a hindrance to collaboration. The Gerontology Center may offer potential in this respect but currently is mainly focussed on community outreach programs. A recently-appointed facilitator of research in one of the Colleges has been successful in bringing some scholars from three disciplines together to write a grant application to support health literacy research and this approach may prove the most effective. A Gerontology professor interviewed for this project also invites faculty from various disciplines to present their research at his graduate seminar for students in the Graduate Certificate program. This approach may also encourage awareness of potential collaborations.

Such activity has an impact on the Library and its planning. Currently, collection librarians make use of a "gerontology" classification available through the Library's major vendor, Yankee Book Publishing (YBP). On the whole, however, this field, like most other interdisciplinary areas of study, depends upon the collection efforts of librarians and faculty representatives in a variety of disciplines, with little coordination done. There remain questions regarding how collection development is coordinated for a cross-disciplinary field such as gerontology.

Dilevko and Dali (2004) used the citations of scholars in the interdisciplinary program of Tourism Studies to define interdisciplinary literature of interest to users (Dilevko and Dali 2004, p.216). Their conclusions indicate that a future course of action might be to examine the articles, chapters and publications of interview subjects such as ours to examine what they cite as well as compare their perceived use (Dilevko and Dali 2004, p.237). This could also inform the subject concentrations, journal use, and other needs and uses for collection development.

The interview-based portion of this study showed the dominance of (a) interpersonal information seeking and (b) the preference for digital collections. Gerontology scholars consistently (regardless of discipline) make use of personal contacts in their gathering of information to help with research and teaching. This tendency to seek the input of colleagues does not, however, lead them to make use of library staff. These scholars do use the electronic indexing and abstracting services and the electronic journal collections available to them. In some cases this tendency has lead them to use the physical building and collection much less than they once did.

References

- American Library Association. (2004). Seniors and computer technology. *Library Technology Reports* 40(3), 32-40.
- Bird, Gwen and Janet M. Heeken (1994). Survey on the use of information sources in the field of aging [Electronic Version]. *Bulletin of the Medical Library Association* 82(1), 30-35.
- Bock, Timothy and John Sergeant. (2002). Small sample market research. *International Journal of Markey Research* 44 (2), 235-244.
- Bradley, Jana. (1993). Methodological issues and practices in qualitative research. *Library Quarterly* 63 (4), 431-449.
- Crabtree, Benjamin F. and William L. Miller. (1992). *Doing qualitative research*. Newbury Park, CA: Sage Publications.
- Dilevko, Juris and Keren Dali. (2004) Improving collection development and reference services for interdisciplinary fields through analysis of citation patterns: An example using tourism studies [Electronic Version]. *College and Research Libraries* 65(3), 216-241.
- Dobson, Cynthia. (1996). Collection evaluation for interdisciplinary fields: A comprehensive approach [Electronic Version]. *Journal of Academic Librarianship* 22(4), 279-284.
- Mabry, Celia H. (2003). Serving seniors: Dos and don'ts at the desk. *American Libraries* 34(11), 64-65.
- Post, Joyce A. (1992). Gerontology and geriatric libraries and collections in the *United States and Canada: A history, description, and directory*. Greenwood: Westport, CT.
- Robertson, Guy. (2001). Seniors: What they want and what they get in Canada's public libraries. *Feliciter* 47(6), 304-306.
- Sandelowski, Margarete. (1995). Sample size in qualitative research. *Research in Nursing & Health* 18, 179-183.
- Sorin-Peters, Riva. (2004). The case for qualitative case study methodology in aphasia: An introduction. *Aphasiology* 18 (10), 937-949.
- Smith, Erin T. (2003). Changes in faculty reading behaviors: The impact of electronic journals on the University of Georgia [Electronic Version]. *Journal of Academic Librarianship* 29(3), 162-168.

- Spanner, Don. (2001). Border crossings: Understanding the cultural and informational dilemmas of interdisciplinary scholars [Electronic Version]. *The Journal of Academic Librarianship* 27(5), 352-360.
- Wicks, Don A. (2004). Older adults and their information seeking. *Behavioral & Social Sciences Librarian*. 22: 2, 1-26.
- Wicks, Don A., Melissa Spohn, and Edith Scarletto. (2004). Rationalizing collections to support multi-disciplinary research and teaching. A paper presented at the 30th Annual Conference of the Academic Library Association of Ohio, Dayton, OH, 12 November 2004.
- Williamson, Kirsty. (1999). The role of research in professional practice: With reference to the assessment of the information and library needs of older people. *APLIS* 12(4), 145-154. Retrieved 1/4/2005, from EbscoHost.