
Research into information behaviour in the South African context: a preliminary exploration and bibliography: 1980 to date

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Abstract

The article reports on research into information behaviour in the South African context from 1980 to date. While numerous papers have been presented at conferences and published as articles little is available in terms of an overview of the entire body of such research to date. More information is needed on the subjects and contexts of such research; which theoretical models and methods were used and where the gaps in terms of coverage of particular groups lie. This research is based on a systematic review of the literature contained in electronic databases and published proceedings of conferences. Some material from the pre-electronic database era was included. The research is still at an early stage, for example, an extensive listing of theses and dissertations has not been included but rather the focus is on outputs in the form of journal articles and conference papers.

The findings reveal an enormous growth in the number of articles and papers from 2000 onwards reflecting a wide array of subjects. Theoretical frameworks are discussed together with some of the influences on information behaviour research in this country as well as the research methods used.

Thesis supervisors should be encouraged to publish articles on completed research with their students using structured abstracts which would expedite access to, and the sharing of new research in the field. A listing of theses on information seeking behaviour would enable a more comprehensive examination of the whole body of research to identify approaches and methods in more detail.

Introduction

The article investigates the extent and nature of research into information behaviour in the South African context from 1980 to date. It was intended to serve as an introductory review of the field for the issue so that the articles could be contextualised in the local research into information behaviour. The literature on information behaviour shows that the concept has developed over time and many approaches are put forward for particular contexts and situations. Case (2002: 13) defines context as “the particular combination of person and situation” that serves to frame an investigation.

The literature reflects a divide between information behaviour and information searching and retrieval. As Wilson points out, the dominant paradigm in research on information behaviour has been qualitative and interpretative while information retrieval research is inherently positivistic in nature (Wilson 2005). He also argues that the two types of research are based on different “integrative levels.” Information retrieval is concerned with ways of improving “the matching of symbol strings in texts and queries for the retrieval of full-text documents and document surrogates” whereas information seeking

is concerned with the discovery of the appropriate information for tasks, research, everyday life, etc., regardless of the way information is packaged – for example, more information is communicated by word of mouth than is ever retrieved from databases”
(Wilson 2005: 1).

In their 2005 book Ingwersen and Järvelin (2005) attempt to resolve the above difficulties by proposing a “cognitive framework” for research in the combined field of what they call information seeking and retrieval. In doing so they emphasise the importance of context in information seeking and retrieval. Wilson (2005: 1-2) commends them on taking on this difficult task of attempting to bring the two fields together. He notes that their contribution at least has the “virtue of coherence.”

Ingwersen (2000;2005;2006) and Järvelin (2004) have been regular presenters of papers at ProLISSA conferences in South Africa, hence are likely to have had some influence on local approaches¹. For instance, Ikoga-Odongo and Mostert (2006) in their review of major studies that focus on the concepts of information behaviour, needs, seeking and use argue for taking the context of the information behaviour into account as the foundation for any research in this field.

While endorsing the points made by Wilson (2005) above, this article refers to (and includes in the bibliography) articles that deal with information retrieval research. This has been done where an awareness of the concept of information behaviour has been evident in the approach of the research.

For this article Wilson's (1999) definition of information behaviour is used. Information behaviour describes "those activities a person may engage in when

1. identifying his or her own needs for information,
2. searching for such information in any way, and
3. using or transferring that information" (Wilson 1999: 249).

Information behaviour is a broad term that covers information needs, information seeking behaviour, information searching and information use. These activities formed the focus of the search for relevant literature for the article. The related areas of information literacy and reading were not included.

Examples of key contributions which are often cited in the South African literature, some of which have been reviewed (Du Preez 2006) in the local literature, are Wilson (1981;1996;1999;2000;2003;2005), Dervin (1983;1992;1998;1999;2007), Vakkari, Savolainen, and Dervin (1997), Case (2002), Kuhlthau (1991;1993;1994;1997;1999;2004;2007), Fisher, Erdelez and McKechnie (2005) and Ingwersen and Järvelin (2005).

Problem statement and issues investigated

While numerous papers have been presented at conferences and published as articles little is available in terms of an overview of the entire body of information behaviour research in South Africa to date. More information is needed on the subjects and contexts of such research, about which theoretical models and methods have been used and where the gaps in terms of coverage of particular groups lie. It is these issues that this article addresses.

Research approach

This research is based on a systematic review of the literature identified in electronic databases and the published proceedings of conferences. The documents identified appeared in South African journals or were presented at conferences in South Africa but in some cases they reported on research done in other African countries or abroad. The idea was to identify contributions that

form part of and influenced the local discourse relating to information behaviour. Material was added from the pre-electronic database era where possible. The coverage for this article is from 1980, when some key articles written by authors who became influential in the field were published, to the present day. No attempt has been made in this article to trace earlier contributions.

The research is still at an early stage, in that, for example, an extensive listing of theses and dissertations has not been included but rather the focus is on journal articles and conference papers. In some cases theses were retrieved in the more general searches and these were included where there was little other coverage of a particular area.

Findings and discussion

The findings reveal an enormous growth in the number of articles and papers from 2000 onwards on a wide array of subjects (see the appended chronological bibliography). Some of the items may fall into more than one category but they have been described below in terms of their major foci.

The findings are presented and discussed in relation to the foci in the content of the items and the various groups of respondents or participants researched. The next subsection deals with theoretical and conceptual frameworks used and methods applied in the research examined for the article.

Foci in the content and the target groups researched

This section commences with looking at the contributions on specific conceptual frameworks for research in information behaviour. It then identifies papers on information storage and retrieval in formal information systems. Approaches to information behaviour research and methods follow. Finally the various groups that form the subjects of the research papers are described. With reference to using groups to describe subjects, Case (2002: 258) cites Choo and Auster:

Information needs and uses need to be examined within the work, organisational, and social settings of the users. Information needs vary according to users' membership in professional and social groups, their demographic backgrounds, and the specific requirements of the task they are performing.

Bearing this observation in mind various aspects set out above are used to group the findings reported below.

Contributions which focused on conceptual frameworks for information behaviour research were especially prevalent in the findings of the ProLISSA conference proceedings with contributions by Fourie (2004) Ingwersen (2004;2006) and Järvelin (2004). Ikoga-Odongo and Mostert (2006) provided a useful review of several models of information behaviour.

Information storage and retrieval in formal information systems was the subject of an array of papers by Cosijn (2000), Ingwersen (2000), Kebede (2000), Fourie (2002;2006) and Fourie and Bothma (2007).

Kaniki (2001) and Penzhorn (2002) motivated for the use of specific approaches to research in terms of community profiling and participatory research. Karelse (1994) argued for information work as a dynamic interactive process with a strong participatory element.

Much of the 1980s and early 1990s was taken up with research on the information behaviour of black South Africans who had been severely marginalised in apartheid society. Articles and papers traced for this article include contributions by Tsebe (1985), Manaka (1986), Fairer-Wessels (1987;1990), Bekker and Lategan (1988), Mini (1990) and Legoabe and Boon (1992).

Ethekwini Municipal Library Services (2002) undertook a substantial survey of the users and non-users of the library services offered by the Metro. Small-scale community needs assessments of urban and peri-urban sites are found in Mini (1990) and Zaverdinos-Kockott (2004). Dansoh, Stilwell and Leach (2007) addressed the issue of low-cost home owners and access to housing information in the peri-urban community of Tamboville, Msunduzi. Women's information behaviour was researched by Fairer-Wessels (1990), Kwake (2006) Kwake, Ocholla and Adigun (2006) and Migiro and Kwake (2007). African women, working as domestic workers, were targeted by Fairer-Wessels and these workers were also surveyed by Forbes (1999).

Kwake (2006), Kwake, Ocholla and Adigun (2006) and Migiro and Kwake (2007) researched rural women in particular and rural communities more generally were researched by at least four other authors: Kaniki (1995), Leach (1999;2001), Maepa (2000) and Mchombu (2001).

Farmers and the rural development context were the subject of eight contributions with papers by Meyer (2003;2005;2009), Meyer and Boon (2003),

Stefano (2004), Stefano, Hendriks, Stilwell and Morris (2005), Stefano, Stilwell, Morris and Hendriks (2009), and Lwoga, Ngulube and Stilwell (2010). Munyua and Stilwell (2010) researched the information behaviour of farmers' groups in the Kirinyaga district in Kenya.

The tertiary sector with reference to academics, researchers and academic librarians was the subject of research by Ocholla (1996;1999), Marumo (2000), Lamoral (2001), Mugwisi and Ocholla (2002), Darries (2004) and Mitha (2009).

Tertiary students came under the lens in contributions by Davis (2000;2006; 2007), Shongwe (2005), Fourie and Bothma (2006), Soyizwapi and Hoskins (2009) and Hadebe and Hoskins (2010). Ntombela, Stilwell and Leach (2008) investigated residential students' use of information about HIV/Aids at the former University of Natal whereas Adams (2010) researched the information behaviour of Generation Y students at the University of Stellenbosch.

Millward (1994) addressed the needs of teenagers while high school learners were researched by Fourie (1995), Rubushe (2000) and Stilwell and Bell (2003). Among other groups researched were parliamentarians with contributions by Mostert (2002), Mostert and Ocholla (2004;2005)and Swartz (2005).

Nurses, other healthcare professionals and patients were the subject of five contributions by Fourie and Claasen-Veldsman (2006;2007) and Fourie (2008a; 2008b;2009;2010). The information behaviour of veterinary practitioners was studied by Nel (2008).

Du Preez (2007) and Du Preez and Fourie (2009) reported on the information behaviour of engineers.

Entrepreneurs were addressed by Ikoga-Odongo (2002) and Underwood (2009) and exporters specifically by Viviers and Calof (2002).

Stilwell (2002) and Stilwell and Stilwell (2002) reported on sex workers' information behaviour. The behaviour of leisure tourists was researched by Fairer-Wessels (2004).

This section reveals the wide spread of types of groups covered in the contributions identified. Authors generally tended to contribute to one well-defined specialist area with Fourie being the most prolific author with 11 contributions.

Conceptual and theoretical frameworks and methods used

Wilson (2003: 447) reminds us that

the choice of an appropriate research method should be determined by a combination of the philosophical position of the researcher vis-à-vis the research objectives, the nature of the problem to be explored, its novelty in research terms, and the time and resources available to carry out the work.

While Wilson (2003: 445) points out the lack of “an over-arching philosophical framework that might guide the development of methods” he does observe that there is “some cohesion around models and methods that have won support” listing Wilson (1981;1999), Dervin (1992) and Kuhlthau (1994), and that “there is perhaps a developing consensus on an appropriate framework for investigation.” To address the problem of grounding research in the realities of everyday professional practice he suggests that phenomenology offers an integrative philosophical perspective that might also contribute to resolving the research/practice split. Phenomenology seeks to understand how “persons construct meaning” and a key concept is intersubjectivity, in other words “we experience the world with and through others” (Wilson 2003: 447).

In the South African context Ikoga-Odongo and Mostert (2006) specifically sought to review major studies that focussed on the concepts of information behaviour, needs, seeking and use and they endorsed awareness of the context of information behaviour as the foundation for any research in this field.

Ingwersen and Jarvelin’s nested model of context stratification for information seeking and retrieval (2005) which was developed in North America and Europe was presented over a number of years at the ProLISSA conferences. Commentators on the model, such as Wilson (2005), note its coherence and its integration of the formerly dominant positivist paradigm in information retrieval research with the dominant qualitative paradigm in information behaviour research. Dick (2006) questions, however, whether the cognitive approach embodied in the model allows “the conceptualizing and study of the socio-cultural context of information processes” described by Talja (1997: 67). Dick (2006: 9) argues that in South African society with its multiple divides, much research into information behaviour requires a “less rigidly stratified nested model of context to allow for a more flexible interplay of the several layers of context, sensitive to time, place and circumstances.” He argues that we need “to take a wider view of the social contexts in which information seeking and retrieval take place.” An examination of the research on information behaviour

in South Africa since the mid 1990s gives a sense of the extent to which this view is being taken into account.

In her study of the information behaviour of secondary school learners, Fourie (1995) used a structured questionnaire and a combination of a self-administered questionnaire and follow-up interviews with public librarians in the locality of Pretoria-Verwoerdburg.

Kaniki's (1995) research on information seeking behaviour drew on Belkin's (1980) cognitive approach in the form of the anomalous state of knowledge (ASK) approach together with Dervin's concept (1992) of the knowledge gap or situation of uncertainty, in combination with interviews based on the critical incident technique. A similar combination of approaches and methods was used by others, for example, by Forbes (1999), Stilwell and Bell (2003), Zaverdinis-Kockott (2004) and Dansoh, Stilwell and Leach (2007). Maepa (2000) used structured interviews and the critical incident technique.

Davis (2000) used Belkin's anomalous state of knowledge approach as depicted in Belkin, Brooks and Oddy's (1982) cognitive communication system for information retrieval. His method was online transaction logging.

Mchombu's (2001) report on his impact study carried out in Malawi and Tanzania reveals that the research was based on an action research model developed by Menou (1993) and influenced by Tandon (1981) and Dervin and Nilan (1986). He sought to measure the impact of information on rural development using interviews with villagers and observation.

Penzhorn (2002) supported the use of a participatory approach. Stefano, Stilwell, Morris and Hendriks (2009) employed participatory approaches with a co-research group comprising organic farmers in Umbumbulu. Meyer and Boon (2003) and Meyer (2005) used a qualitative approach with evidence drawn from a case study, with field visits to their site in Phokoane, a village in the Limpopo Province of South Africa. Kwake, Ocholla and Adigun (2006) used survey research based on interviews with rural women.

Du Preez (2009) used Dervin's gap-metaphor in her sense-making approach (1983) and Leckie, Pettigrew and Sylvain's general model of the information seeking of professionals (1996) as the framework for her research into the information behaviour of engineers. Her method was based on semi-structured time-line interviews (Du Preez 2009).

Munyua and Stilwell (2010) adopted a triangulation of qualitative, quantitative and participatory methodologies and methods for sampling, data collection and

data analysis. The methods combined Engel and Salomon's (2007) Relaxed Appraisal of Agricultural Knowledge Systems (RAAKS) and Participatory Rural Appraisal (Pretty and Vodouhe 1997), focus group discussions with farmers' groups and observation. Dervin's sense-making methodology (1998;1999;2007) was used as an approach to study information behaviour, while the soft systems methodology (Checkland 1999) was used to link up the different activities by diverse agricultural actors.

Wilson's approach (1981;1996;2000) influenced Lwoga, Ngulube and Stilwell's research (2010). They collected qualitative data through semi-structured interviews and focus groups, and quantitative data using closed questions posed to respondents during the same interviews. Focus group sessions were held in the surveyed villages. Participants covered a broad spectrum of farming systems, ethnic-religious groups, gender and age groups.

In her study of the information behaviour of patients and families in palliative cancer care Fourie (2010) also drew on Wilson's (1999) contribution. Her study was based on semi-structured interviews which were conducted by an oncology social worker using a detailed questionnaire. The author carried out individual interviews with healthcare professionals working in the same setting.

The conceptual framework for Hadebe and Hoskins' (2010) study was based on Kuhlthau's Information Search Process (2004). Qualitative and quantitative data was collected using a questionnaire and a focus group. Adams's (2010) case study drew on a constructivist approach and on the first three stages of Kuhlthau's (2004) Information Search Process to find out whether it was uncertainty, or rather the complexity of an information seeking task, which causes anxiety and lack of confidence among a small selection of Generation Y students at the University of Stellenbosch. The methods employed were semi-structured questionnaires and reflective journals.

Underwood (2009) applied a balanced scoreboard approach. Some studies did not make their approach explicit and this problem is returned to below. Darries (2004) and Mitha (2009) used a web-based questionnaire as their data collection method.

A variety of approaches, many of which were qualitative and interpretive, have been used in local research. The overview of approaches and methods above describes those that were immediately accessible. Others might become apparent in a longer term study.

Conclusion

The article has presented an overview of information behaviour research in South Africa from the 1980s to date. Information is offered about the subjects and contexts of such research and which theoretical and conceptual frameworks and methods were used. This overview should assist us in revealing where the gaps in terms of neglected groups lie. The paucity of research into information behaviour relating to HIV/Aids, given the scale of the HIV/Aids pandemic in the region, was surprising.

The findings reveal an enormous growth in the number of articles and papers from 2000. Whereas research in the 1980s focused on the information behaviour of black South Africans a wider array of subjects, approaches and methods is found from the mid 1990s onwards.

Thesis supervisors should be encouraged to publish articles with their students on completed information behavior research using structured abstracts which make the approach used explicit. In this way access to, and the sharing of new research in the field can be facilitated. A listing of theses on information seeking behaviour would enable a more systematic and comprehensive examination of the whole body of research.

Chronological listing of contributions 1980 - 2010

1980s

Tsebe, J. 1985. Information needs of the black South African society: a conceptual analysis. *Wits journal of librarianship and information science* 3: 121-130.

Manaka, S.P. 1986. Information needs of blacks. *Free State libraries* July-September: 20-24.

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Bekker, S. and Lategan, L. 1988. Libraries in black urban South Africa: an exploratory study. *South African journal of library and information science* 56(2): 63-72.

1990s

- Fairer-Wessels, F. A. 1990. Basic community needs of urban black women in Mamelodi, South Africa. *South African journal of libraries and information science* 58(4): 359-369.
- Mini, T. 1990. Reading habits and library use by blacks in Edendale. *Innovation* 1: 18-31.
- Legoabe, F.N. and Boon, J.A. 1992. Information needs of urban black South Africans with reference to Mamelodi. In Coetzer, A.G. (ed.) *Proceedings of the conference on Library and Information Services for the Future Development of Southern Africa, Pretoria, 6-8 May*. Pretoria: Info Africa Nova. Pp. 140-153.
- Karelse, C.M. 1994. Information users and their needs. *Cape librarian* 38(5): 22-25.
- Millward, J. 1994. Young adult library services in Johannesburg: addressing the needs of teenagers in a multi-cultural society in transition. *International review of children's literature and librarianship* 9(2): 57-72.
- Fourie, J.A. 1995. Pupils as curricular information seekers and the role of the public library. *South African journal of libraries and information science* 63(3): 129-139.
- Kaniki, A.M. 1995. Exploratory study of information needs in the Kwa-Ngwanese (Natal) and Qumbu (Transkei) communities of South Africa. *South African journal of libraries and information science* 63(1): 9-17.
- Ocholla, D.N. 1996. Information seeking behaviour of academics: a preliminary study. *International information and library review* 28(4): 345-358.
- Forbes, C. 1999. The information needs of domestic workers employed in Clarendon, Pietermaritzburg: an assessment. *Innovation* 19: 8-18.
- Leach, A. 1999. The provision of information to adults in rural KwaZulu-Natal, South Africa, by Non-Governmental Organisations. *Libri* 49(2): 71-89.
- Ocholla, D.N. 1999. Insights into information seeking and communicating behaviour of academics. *International information and library review* 31(3): 119-143.

2000

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Kebede, G. 2000. Proposed approaches to study information needs of users in electronic information environments. In Wormell, I. (ed.) *ProLISSA: proceedings of the first biennial DISSAnet Conference, Southern African LIS Research in Progress, Pretoria, 26-27 October*. Pretoria: Centre for Information Development. Pp. 157-166.

Maepa, M.E. 2000. Information needs and information seeking patterns of rural people in the Northern province. In Wormell, I. (ed.) *ProLISSA: proceedings of the first biennial DISSAnet Conference, Southern African LIS Research in Progress, Pretoria, 26-27 October*. Pretoria: Centre for Information Development. Pp. 287-288.

Marumo, T. 2000. Information seeking behaviour of the dental faculty lecturers and students at the University of the Western Cape's Oral Health Centre Library, Mitchell's Plain. MBibl thesis. Belville: University of the Western Cape.

Rubushe, B. 2000. An exploratory study of the information needs of secondary school students in Mdantsane Township, Eastern Cape. MIS. Pietermaritzburg: University of Natal.

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Kaniki, A.M. 2001. Community profiling and needs assessment. In Stilwell, C., Leach, A. and Burton, S. *Knowledge, information and development: an African perspective*. Pietermaritzburg: School of Human and Social Studies: 187-201. Available at: <http://www.infs.ukzn.ac.za/links.htm>. Accessed 18 May 2010.

Lamoral, D. 2001. Information seeking behaviour of researchers at the Institute for Commercial Forestry Research, University of Natal. *Journal of librarianship* 33(4): 177-190.

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Van Zijl, C. and Gericke, E.M. 2001. Methods used by South African visual artists to find information. *Mousaion* 19(1): 3-24.

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Stilwell, C. 2002. The case for informationally based social inclusion for sex workers: a South African exploratory study. *Libri* 52(2): 67-77.

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2006

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Endnotes

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