Diverse practices of information-seeking

Working Paper 11

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Executive Summary

Online search engines have brought significant changes to the ways people search for information. However, we know little about the place of online search within wider patterns of information seeking in households. This paper reports on qualitative research involving interviews with 19 individuals and household groups that investigated the ways the participants searched for information and the social and structural factors that influenced their information seeking.

The paper gives narrative accounts of four research participants to develop a picture of the 'information worlds' that they inhabit, and the wider social and economic contexts that shape these worlds.

Analysis of the interview data points to the significance of both the internet and other people as information sources. The research showed a wide range of competency in undertaking online search and discriminating between search results.

The research illustrates the diverse populations that public libraries serve, and the significance of libraries, and librarians, in providing disadvantaged population groups, especially, with effective access to the internet. The research contributes to a growing understanding of the qualitative and quantitative aspects of the digital divide.

Background to the analysis

The Searchers project examines the strategic challenges for major public libraries presented by the online information environment. The project has three components: research on current information-seeking and the role of public libraries in online information provision, analysis of wider developments in online environments and search models, and evaluation of the policy and strategic implications for public libraries highlighted by the research. The project will provide guidance for the State Library of Victoria (SLV or State Library) in developing appropriate models of information provision and contribute new thinking on the role and position of major libraries in the digital age.

This paper contributes to the series of Working Papers produced as part of the Searchers project. Other titles in the series are:

Searchers Working Paper 1: Addressing the current challenges faced by large public

libraries, March 2008

Searchers Working Paper 2: The Searchers - Project Outline, March 2008

Searchers Working Paper 3: Virtual Visitors to the website of the State Library of

Victoria, August 2008

Searchers Working Paper 4: Accessing the State Library of Victoria through iTunes

University (beyond the campus), December 2008

Searchers Working Paper 5: Searching the State Library Catalogue, December 2008

Searchers Working Paper 6: Online visits to large public libraries in Australia - a

comparison, December 2008

Searchers Working Paper 7: What do people search for on the State Library

catalogue? March 2009

Searchers Working Paper 8: Pathways to the SLV collection

Searchers Working Paper 9: Analysis of extended reference inquiries at the SLV

Searchers Working Paper 10: Information seeking

Introduction

The development of search engines and other on-line information systems have provided new ways for people to search for information. Little is known about how this affects patterns of information seeking within households. This qualitative research aims to find out more about how people find information in their daily lives, and how public libraries might respond appropriately in order to better serve the public.

There is a wealth of research on the social implications of the internet (for example, Bakardjieva 2005, Castells 2001, Cavanagh 2007, Dutton 2005, Selwyn 2005, van Dijk 2006, Wellman and Haythornthwaithe 2002). As Waller (2001) and Bakardjieva (2005) have demonstrated, the Internet is not a monolithic entity, but is comprised of a range of social practices, discourses and technologies. It follows that it is important to situate Internet 'access' and 'use' within social structures and individualized lives. Such studies of the Internet make a valuable contribution to our understanding of patterns of Internet use and the social and structural factors that shape that use. However, their focus on the Internet, whether accessed through stationary or mobile devices, provides limited insight into information-seeking in relationship to the Internet. As Julien and Michels (2004) have noted, there is a lack of attention in the literature to detailed analysis of information seeking in daily life contexts.

Waller (2009, 2011) has analysed the subject of queries entered into the SLV catalogue, and the subject of queries entered into Google and Wikipedia. However, these quantitative analyses are exploratory and raise many questions about people's information seeking needs and practices and how the library is best placed to serve them. Further, the emphasis on individuals neglects the household-level contexts and practices of information seeking. Households – understood as individuals or groups living in a private dwelling - are an important locus of research for several reasons:

- they are rich information environments and sites of complex information needs
- private dwellings are the most common site for accessing the internet
- household-level research assists comparative analysis across socio-economic strata and diverse living arrangements.

A focus on households also provides an opportunity to analyse information-seeking offline as a context for interpreting online search, a research priority identified by Di Maggio et al. (2004:380).

The central platform of SLV21, the digital strategy of the State Library of Victoria is to provide information to people when and where they want it through increased online services and access to digital collections. This focus on immediate

discoverability and availability is part of the wider National and State Libraries Australasia agenda to create a new 'library universe' in the 21st century (NSLA 2007).

This paper reports on interviews with individuals and households about their information needs, information-seeking, internet use and library use. This work builds on the research conducted by the Libraries Building Communities project (LBC) into the library use of hard to reach groups (State Library of Victoria 2008). LBC estimated that these groups, comprising 13% of the Victorian population, may be marginalised in their access to information and could greatly benefit from public library services. LBC identified some of the barriers faced by some indigenous Australians, disadvantaged young people, Horn of Africa communities, low-income families and vulnerable learners to accessing and using library services. While the LBC research focussed on the place of libraries in people's lives (or the potential for libraries to have a place in people's lives), the research reported upon in this paper had information-seeking as its focus. Hence, this research provides a useful complement to the qualitative research undertaken as part of the LBC study.

Organisation of the paper

The paper is organised as follows: A description of the methodology is followed by four 'portraits'. These portraits are brief illustrations of the 'information worlds' (Jaeger and Burnett 2010) of selected interviewees. They are illustrative rather than representative. It should be noted that this does not impact upon their validity. Each portrait is followed by a discussion indicating the prevalence of Victorians facing different issues illustrated in the portrait. Finally, the paper discusses some of the themes that have emerged from the research and the implications for public libraries.

Methodology

Drawing on the method of theoretical sampling (Glaser and Strauss 1967), the researchers deliberately sought variation in the individuals and households they chose to interview. As Table 1 shows, they selected households that spanned a range of household types, socio-economic status, and location, including participants with a disability and from non-English speaking backgrounds. This sample contrasts with the relatively homogeneous samples used in the qualitative studies discussed above.

Interviewing the assembled household enabled family members to comment on each other's responses which provided richer data and moderated any tendency by individual family members to misrepresent their activities (Morley 1988). It also allowed the researchers to observe the social setting and group interaction within the household (Moores 1996).

Case	Household type	Socio-	Location	CALD	Disability
		economic			
		status			
1	Family with	high	Urban		
	three children		periphery		
2	Family with	high	inner		
	three children		suburban		
3	Single parent	low	Urban		
	family with two		periphery		
	teenage girls				
4	Single parent	low	outer	African	
	family with four		suburban		
	children				
5	Single young	low	inner	Southern	Mental
	man in boarding		suburban	European	health
	house				
6	Single young	low	inner		Visual
	woman in group		suburban		
	house				
7	Knowledge	high	inner		
	worker with		suburban		
	iphone				

Table 1: Theoretical sampling of interviewees

This research was approved by the Swinburne University Human Ethics Research Committee. A total of nineteen interviews were conducted with families, individual family members and single householders between October 2009 and April 2010.

The purpose of the household interviews was to find out about the sort of information interviewees seek and the ways they go about this. The purpose of the individual interviews was to find out more in-depth information about the participant's use of and opinion of various different sources of information. Household interviews tended to last for about 40 minutes. Individual interviews lasted between ten minutes to half an hour depending on the interviewee's level of Internet use.

After the initial household interview, participants were left with an mp3 voice recorder which they were to use to record a brief summary of information search activities by household members every day for a week. This recorder was theirs to keep after the data on information search activities had been extracted from it. The researchers returned in approximately one week to extract the data from the recorder and interview each household member separately. Unfortunately, the mp3 recorder

was quite difficult to operate and was only used by one family. Another family took notes on their information-seeking activities for the week.

The interviews were semi-structured. The household interviews focussed on information-seeking experiences, information-seeking strategies and the use of particular sources of information. Because the household was assembled, different members could comment on the responses or activities of other members.

Additionally, household data was collected on the number of and location of computers and the type of Internet connection. The occupation and educational status of adults as well as the age of the children was also recorded.

The Individual interview focussed on the respondent's familiarity with, use of, and evaluation of the following sources of information:

- Books
- Search engines (especially Google)
- Wikipedia
- Social Networking Sites/forums/Twitter
- Youtube
- TV
- radio
- iTunes
- mobile devices
- public library/librarians
- State Library/librarians

In the case of single-person households, the household and individual interviews were combined.

All interviews were recorded and transcribed. The qualitative research software NVivo was used to code and organise the data. In the following section, we present four portraits of participants, combining narrative accounts of information seeking with published quantitative data to provide an insight into the diverse information worlds of the research sample. The participants' real names are not used.

Portraits

Portrait 1: two very different teenage girls

Rebecca and Kylie are public high school students living in different parts of Melbourne's metropolitan fringe. In grades 7 and 8 respectively, they both have English as a first language. Both live in households with broadband internet and a wireless network. Rebecca lives with her tertiary educated parents and two younger brothers. Kylie's mother, Nicole, is a single parent who left school at year 10. While

Rebecca's parents are frequent and competent users of computers and the internet, Nicole has very limited knowledge, stating that she turns the computer on every six months. When asked had she ever found what she was looking for on Google, Nicole replied "[s]ometimes with the kids. Me? No...I don't know whether it's just me but I go to look something up and I can never get into what I'm looking for and you've got to go round and round, about 1 million different places and I just crack it. I'm too impatient".

Both Rebecca and Kylie enjoy active recreation – Rebecca dances and Kylie skateboards. Beyond this, though, direct comparisons are difficult to find, especially when it comes to information seeking. Rebecca's family identify her as someone who likes to find things out. She is a confident searcher for information in physical and online environments. Her home room teacher, who is also the school librarian, is her first point of contact for books. She attempts to go to the local library "as often as possible", and also uses the knowledge resources of her extended family. Rebecca's preferred on-line search strategy is to use Google or Bing. She is aware of the limitations of search engines, and cautious about Wikipedia as an information source.

By contrast, Kylie exhibits limited curiosity and information seeking and evaluative skills. Kylie described herself as someone who does not like books or reading. Like Rebecca, she is a member of her local library, but goes there about once a year. She asks a librarian for what she wants, rather than search herself – she describes her library search strategy as walking along the shelves. Kylie's preferred online search tool is Google, and she describes her use of it in this way: "...you just sort of type something in, and then it sort of comes up with it and then you normally just like the first one, its just there, what you want."

Both Rebecca and Kylie's use of digital media appears to be closely regulated by their parents, ostensibly for welfare and financial reasons. Kylie was particularly restricted, although the comfortable household furnishings suggested that Nicole's basic 200mb internet plan was a matter of choice rather than financial hardship.

Both Rebecca and Kylie's awareness of the State Library of Victoria was limited. Rebecca had visited SLV once, but not used the website. The mother Nicole was not even sure what SLV was. "A massive library?" she ventured when quizzed.

In context

What do we know about the patterns of use of Rebecca and Kylie's age cohort, and what light does this knowledge shed on their stories? Children in the statistical age group 5-14 years comprise 13.5% of the Australian population. Australian Bureau of Statistics (ABS) statistics indicate that 96% of children aged 12-14 use the internet. Computers are the dominant medium for internet access. Over 30% of Australian children have mobile phones, but only 4% use their phones to access the internet. For the 5 to 14 year cohort, home was reported as the most common site of internet use

(92%) followed by school (86%). Of the estimated two million children accessing the internet at home in 2009, educational activities (85%) and playing online games (69%) were the most common activities, although ABS data point to a wide range of internet-based activities (social contact, music downloads etc). More than half (58%) of children who used the internet at home did so for more than two hours per week, with 17% online for ten hours or more per week (all data from *Children's Participation in Cultural and Leisure Activities*, ABS 4901.0, 2009).

Analysed in terms of the gross-level statistical data, then, Rebecca and Kylie's internet use seems broadly similar. However, their narratives point to significant differences in the way they conceptualise the task of information search, their critical awareness of information tools, even their curiosity and motivation for self-directed learning. Beyond subjective differences (eg. personality, interests), data on family and household dynamics surrounding internet use, and sociological discussion of cultural capital, highlight important modulations within this age cohort.

Kylie's mother, Nicole, is not alone in finding the internet difficult to use. A quarter of the respondents in Ewing and Thomas' (2010) survey of internet use in Australia found the internet frustrating or very frustrating to use. Lack of skill, while declining in significance, is still an important factor in non-use – nominated as more important than the cost of internet access (p. 5). A low level of formal education is also a strong predictor of non-use (p. 3). For Nicole, as with more than one in three Victorians, Year 10 is the highest level of education attained. (ABS 2006 – Source 20010-BCP-Victoria ABS basic community profile.xls). Such findings support reframing of the digital divide in qualitative (digital literacy, participation) rather than quantitative (connectivity) terms. While the analytical terms of Ewing and Thomas' survey is framed around use/non-use, the stories told here raise questions about *effective* internet use.

Portrait 2: an unemployed young man

Jose is from Southern Europe and in his twenties. He has been in Australia 13 years and has been living in a boarding house for two years. His mother and some of his brothers and sisters live in Australia. He also has brothers and sisters living in Southern Europe. He can speak and read in English – at a fairly basic level. He works intermittently as a builder's labourer but is currently not employed and not looking for work. He is interested in soccer, basketball, cooking, and music. He is very reserved.

Jose spends much of his days at the local neighbourhood house and at another local drop-in centre where he is involved in a music program.

He uses the local library to borrow books and he uses the Internet at the local library about once a month. His internet skills are rudimentary. He can only access the

Internet at the library with help from the librarians. There are computers where he lives but they are not connected to the Internet. He also uses the computer at his mother's place. He does not have his own email address but is in touch with his brothers and sisters in Portugal through the emails of family members. Jose has not heard of Wikipedia or Youtube. He has only recently purchased a mobile phone.

Jose navigates his way through daily life by asking people that he knows for the information that he needs. His family, his Centrelink case manager, staff at the neighbourhood house and staff at the drop-in centre are his main information resources.

In context

Although people like Jose tend to have low visibility in policy discussions, the factors which contribute to his socio-economic disadvantage are common to many Victorians. Like one in five Australians aged 16-85 years, Jose has experienced symptoms of a mental disorder within the past twelve months (ABS 4326.0, 2007).

The fact that Jose was born overseas in a non-English speaking country also adds to his socio-economic disadvantage. 'Youth from culturally and linguistically diverse backgrounds are more likely to experience poverty than other young people' (State Library of Victoria 2008, p.30). Connections between poverty and low proficiency in English are well established, for example in the 1966 Henderson Poverty Inquiry. The Libraries Building Community report echoes this finding. One quarter (25%) of Victorians were born outside Australia (ABS Census 2006). This includes 8% of Victorians born in Asia, 3% born in Africa and the Middle East and 6% born in Southern and Eastern Europe. According to the 2006 Census, 13% of those Victorians born overseas speak English not well or not at all. (ABS 2001.0 – 2006 Community Profile Series, Victoria B11)

The portrait of Jose illustrates the isolation commonly experienced by people who have only a marginal attachment to the labour force. While only 5.1% of Victorians were unemployed in December 2010 (ABS 6202.0 2010), almost one fifth (18%) of Victorians aged 15-24 are not fully engaged in either study or work. Additionally, more than one third (39%) of Victorians who have not attained Year 12 or equivalent education standards do not participate in the workforce (ABS 4102.0 - 2010 Australian Social Trends – Work: Table 2.2).

Jose's story also illustrates the importance of the library as a site of Internet access. Less than two thirds (61%) of Victorian dwellings were reported to have an internet connection in 2006, the latest census year (ABS 8146.0.55.001 Patterns of Internet Access in Australia, 2006). Despite exponential growth in internet activity, the *connection* rate of households across Australia had only reached 72% by 2009 (ABS 8146.0 – Household Use of Information Technology – Australia 2008-09). One quarter of library users do not have Internet access outside of the library (Library

Survey 2006, LBC Report 1, p. 37). Computers access was mentioned as a reason for using the library by 21% of respondents to the Library Census reported in LBC Report 1(p. 38). Jose's portrait also illustrates the importance of the librarians for many library users. The LBC online survey found that 71% of library users ask staff for help while at the library. (LBC 2, p. 28). Jose is unable to use the Internet without the help of the librarian, and his story illustrates the increasing and sometimes unrecognised role played by librarians in promoting digital literacy (Harding 2008).

Portrait 3: the isolated refugee

Amina is a refugee from central Africa who resettled in Australia four years ago. She is a single parent, with three school age children. She lives in rented housing in Melbourne's western suburbs.

Amina speaks several languages, but has only basic knowledge of English. She does not drive a car and her location is not well served by public transport. She does not own a mobile phone. Amina is socially isolated and economically marginalised. There are few people around who speak her native language. She wants to find work, but childcare and language skills are major constraints.

From the information provided by Amina and her translator at interview, her settlement experiences are broadly consistent with the wider refugee population. Typically, this cohort experiences high unemployment, insecure housing, English language barriers, effects of trauma, and poor health compared the wider population.

Amina has a computer at home, but does not use it. Further, she showed very limited awareness of basic technical and commercial aspects of computers and the internet. For example, when interviewed she was uncertain whether the internet was currently connected. Investigation showed it was. Amina then expressed concern about the cost of the internet connection. She reported receiving a bill from her ISP for \$700, blaming this on overuse within the household. She was not aware that her home wireless network was unsecured, possibly explaining the excessive cost.

Amina described a daily challenge in finding information, understanding bills and contracts, and accessing basic services. She is highly reliant on her children and her social worker to meet her information needs. Her oldest child scans the local newspaper to alert Amina to local news and events. Her social worker puts her in touch with social service providers. However, the social and institutional contexts of information are sometimes difficult for Amina to understand. She reported catching a taxi forty kilometres to a government shopfront to pay a bill that concerned her. Desperate for news about her son, from whom she had been separated for ten years, she travelled into Melbourne's CBD and stopped people on the street to ask in broken English for directions to the Red Cross office. It took several visits like this into the CBD before she was able to find the Red Cross office.

Amina is able to infer some information from the visuals on TV. For example, she first found out about swine flu from TV news images of people in the street wearing masks. Although she did not know exactly what the problem was, in this way she became aware of a new contagious disease in Melbourne. In a country where she knows few people and cannot speak the language, Amina struggles to obtain even the most basic survival information.

In context

Around 13,000 people are granted refugee or humanitarian visas to reside in Australia each year. People from Amina's country of birth make up a small proportion of this cohort. It is estimated that fewer than 200 are currently living in Victoria, and many of these live in a provincial city. About 85% of settlers from Amina's country of birth are recorded as having no or poor English language skills (all statistics drawn from Dept of Immigration and Citizenship: Settlement Reports http://www.immi.gov.au/livingin-australia/delivering-assistance/settlement-reporting-facility/). The changing makeup of Australia's offshore humanitarian program in recent years, in response to changing United National High Commission on Refugees resettlement priorities, has meant a decline in English language proficency in this cohort over the past decade or so. Consequent problems of social isolation and high unemployment have been recognised in a review of adult migrant English programs (Department of Immigration and Citizenship: Review of the Adult Migrant English Program -Discussion Paper, July 2008 http://www.immi.gov.au/living-inaustralia/deliveringassistance/amep discussion paper.pdf).

Amina's story is not simply about the challenge of information access, but accessibility. This refers to the format, relevance and context of information. Amina's story conveys a sense of what it is like to be functionally illiterate in Australia, but her situation is compounded by a language limitation that cuts her off from oral sources of information. The ABS Adult Literacy and Life Skills Survey (4228.0, 2006) – part of an international initiative – surveyed literacy amongst the Australian population in four domains: prose (understanding content), document (locating and using information across a range of media), numeracy and problem-solving. ABS grouped proficiency in these domains into five levels, with level 1 being the lowest measured level of literacy. ABS estimates that 47% of Australians fall within levels 1 and 2. Level 3 is regarded by the survey developers as "the minimum required for individuals to meet the complex demands of everyday life and work in the emerging knowledge-based economy" (p. 3). People from a non-English speaking background are situated disproportionately in levels 1 and 2 (the survey is conducted in English). Australia ranks about middle in this regard of the countries participating in the survey.

While Amina can be classed as one of the almost 20% of Australians who are non-users or ex-users of the internet (Ewing & Thomas 2010:1), she might also be described as a proxy user - someone who obtains online information through others

(Selwyn et al 2005). However, there is some evidence that learning to user a computer and the internet may assist in reducing Amina's social isolation and build her communication and information skills. Ewing and Thomas (2010:4) identify a higher rate of internet use by people born overseas than those born in Australia, the rate of difference increasing with age cohorts. These authors conclude that internet use offers great benefits for people born overseas who wish to keep in touch with family or friends and obtain information about their country of birth. Greater access to computers (by which we can infer greater effective access) was nominated by clients of the Adult Migrant Education Program as a desired additional learning resource (DIAC 2008:24).

Portrait 4: the confident knowledge worker

Jane is a knowledge worker who immerses herself in information daily for both professional and personal reasons. She reads several papers every morning, listens to the ABC in the morning and subscribes to several blogs. Her job requires her to find out information that is particularly hard to find out and she has very sophisticated information-seeking skills. She is confident in navigating the Internet, libraries and archives. Her main information sources for the information she needs on a daily basis are google and the professional contacts that she has built up over many years. She also uses Wikipedia to get an overview on topics that are completely new to her. As she says "You have to understand what it is and what it isn't".

She is not a big user of the local library, mainly visiting it to borrow books for her children. She has frequently used the National Library for research purposes, the State Library less so.

Jane has roaming wireless for her netbook and recently, she bought an iphone which she uses to look up information on the go – mainly the weather and public transport timetables. Occasionally she uses it to search the internet, but she usually waits until she can use a larger screen. She has started to use Twitter to find out information saying "Well I tend to use Twitter for things that I know won't be on Wikipedia like I put out a Twitter saying I'm at Docklands where is a good place to eat?"

She also uses Twitter to find out information that she needs for her job, inside information that people in her line of work who follow her might know - not the sort of information that would be on the Internet or in print - say, information about what's really going on at company x.

In context

One third (33%) of Victorians work as managers or professionals (ABS Census 2006), a group of people with particularly high information needs at work. Jane's story illustrates the blurring of information-seeking for work and information-seeking to satisfy personal curiosity. Jane's sophisticated information-seeking skills are well

above average. Jane would be included within the 2% of Victorians with the highest level of literacy (Level 5), which in ABS's rating enables them to make high-level inferences and use complex displays of information (ABS 4228.0 1996).

Use of the mobile phone to search for information is a growing phenomenon. While five years ago, few people accessed the internet on a mobile phone, last year, one quarter (25%) of Australians carried out mobile searches at least once a week (AIMIA 2009). However, there is little data on what type of searches people conduct on their mobile. Jane's mobile searches are mainly for public transport and weather information and it is quite possible that this is typical. Apart from Wikipedia, the Bureau of Metereology is the most commonly used reference site (Hitwise data), accounting for one quarter of all visits to reference sites, although it is not known what proportion of these visits are from mobile phones.

Jane is one of the 13% 1% of Australians who posted on Twitter in 2009. (Nielsen Netview http://blog.nielsen.com/nielsenwire/global/australia-getting-more-social-online-as-facebook-leads-and-twitter-grows/). While in the early days of Twitter, users tended to use it to post comments, more users are now, like Jane, using it to post questions.

Discussion

These portraits provide a glimpse of some of the library's publics. The contextual comments show the numbers of Victorians that share the characteristics and life contexts of those featured in the portraits. In this section, we expand the focus of the discussion to summarise themes arising from an analysis of all interview transcripts.

The most notable themes in the data related to the selection and use of information resources, and the fact that some people's information-seeking was limited to basic survival information.

Information resources, can be classified broadly as person, print and electronic (Julien and Michels 2004). In this study, print was occasionally mentioned as an information resource and radio was still an important source of information for some of the adult participants with higher levels of education. The most significant information resources mentioned by the participants, however, were the Internet and other people. That the Internet was regarded as a significant information resource was not surprising. A US study undertaken in 2007 found that just under half (49%) of Internet users in the US use a search engine every day (Fallows, 2008). In Australia in 2009, the Internet was considered to be an 'important' or 'very important' source of information by almost three quarters (73%) of Internet users (Ewing & Thomas, 2010). For those participants using the Internet as an information resource, Google was commonly the first port of call. Many times when asked how they would find out

about something, respondents immediately replied 'google' What the qualitative research revealed, however, is the huge variation in the sophistication of search queries entered and the understandings of how to evaluate the results.

As might be expected, children were least likely to show critical understanding of how search engines work. For example, Mark, a primary school-aged boy from a high socio-economic background selected from Google results in the following way: "I just go to any random ones. I just go 'pick". However, several of the adults also exhibited a lack of critical understanding about how to interpret search engine results. Sam, who had completed year 12 and was in her thirties, would just start at the top and go down the list until she found something relevant to her query. Sally, who was also an articulate fairly well-educated adult, had this to say: "I probably only would ever go the first page. I would never go to another page; those ones would be just too far removed if it hasn't come up on the first ten references". At the other end of the spectrum were participants who would check the first couple of pages, and check the domain name to see if it looked relevant and authoritative. These participants were also confident in knowing how to refine their search if there were too many hits.

The research also highlighted the importance of other people as an information resource or a proxy to the internet. While reference librarians have long acted as information resources, the research identified the significance of other people as informal information resources. This phenomenon appears to have been given little attention in the existing literature on information-seeking behaviour.

The research identified two very different reasons why people may rely on others to find information for them. The first relates to lack of information-seeking skill or lack of trust in one's own information seeking-skills versus trust in others. For example, it appeared that Jose relied on others, including the librarian and his caseworker for all of his information needs. Nicole, who was unable to use the Internet relied on her daughters or friends to look up information for her that she was unable to find without using the Internet.

A completely different scenario identified in the research was relying on others as an information source because they had direct access to the desired information. This phenomenon of 'social search' (Evans and Chi 2008), that is, asking questions through one's digital social networks has been identified as a growing trend. An example of this was the knowledge worker, Jane, who although very confident in her internet skills, relied extensively on 'social search' using Twitter to acquire information that was not available on the Web.

It should be noted that Jane was the only participant who used a mobile phone to access the Internet. The other participants who had mobile phones either didn't think that they had Internet access or didn't use it because of the cost. This helps explain the very small number of people who use mobile phones to access the SLV website

(less than 1% of visits to the SLV website are from a mobile phone (Source: Google analytics for May 2010).

The research also illustrated a general link between the range of information that adults search for and their social situation. Amongst those adults in the study who were easily able to acquire the information essential for survival, the types of information to which they gave attention varied widely from trivia, hobbies, product and travel information, news, social events, recipes to health and history, theoretical concepts and politics.

The research suggests, however, that for some people, attention is focussed, through necessity, on basic survival information. The cases of both Jose and Amina illustrated this as most of their information seeking was about how to access basic services. While Amina was also interested in current affairs and politics, her lack of English meant that she was unable to even begin to access this type of information.

Conclusions: Implications for SLV

This research has two main implications for SLV.

The first implication relates to the SLV21 mandate to provide information when and where people want it. The personal narratives and interview research data as a whole suggest that the implementation of this mandate should not be based on narrow assumptions regarding access and effective use of the internet and online sources. The data show that, while there is a high degree of reliance on Google for online search, competency and discrimination in searching ranges widely. These data support ongoing discussion and policy development around the role of librarians as promoters of digital literacy.

The data also suggest there is no single concept of "information". The life stories indicate diverse information worlds, or the different content and context of information seeking. This ranges from information required for basic everyday functioning in a new life setting, through to highly complex information needs of knowledge workers. While public libraries strive to serve all members of the public, the data support LBC's contention that a proportion of the Victorian population is marginalised in regard to information access. Enhancing online availability of information may only be a partial response to meeting what is a multi-dimensional challenge. The interview data support Newman et al.'s (2010) contention that disadvantaged population sectors have a greater reliance on social service and public agencies as supports and intermediaries. A strategic response for SLV and other public libraries may be to boost connections with other public and community sector agencies and community organisations to promote library information resources to and through those agencies.

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