

BARRIERS TO INFORMATION SEEKING IN EDRMS: an empirical study

PART 1

Are knowledge workers able to search and retrieve information from their EDRMS? This 2-part article reports the results of a study of the information seeking behaviour of 40 EDRMS users in four different organisations using three different types of EDRMS which highlights barriers to information seeking and discusses how RMs can address their barriers.

BY PAULINE JOSEPH, ARMA

Advancements in information and communication technologies have changed and empowered the way knowledge workersⁱ create, receive, send and use corporate informationⁱⁱ in organisations.

Knowledge workers are able to transmit and access corporate information on demand from anywhere and at anytime working from home, via their iPhones, Blackberries or from the office. The subsequent growth in corporate information has resulted in knowledge workers failing to get to grips with searching for emails, documents and records.

CURRENT BUSINESS ENVIRONMENT AND KNOWLEDGE WORKERS

Surveys and other research provide statistical evidence that search and retrieval of corporate information is an issue for organisations.

The 2006 Information Management Survey conducted by YouGovⁱⁱⁱ reported 22 per cent of respondents admit to having lost an important document that was saved as an email attachment^{iv}, 'a fifth of employees spend over 30 minutes looking for documents on the network', and employees spend on average 66 minutes a day searching for email^v.

The Delphi research showed that most business professionals spend 'more than 2 hours a day (25% or more of an 8-hour day) searching for the information they need to perform their jobs^{vi}'. The Delphi researchers maintain that these results are consistent with many other surveys, which have concluded that business professionals typically 'spend anywhere from 15% to 50% of their day seeking needed information, most of which is stored electronically and should be easily identified^{vi}'. Further in the Delphi survey, '61% of respondents believe they have a less than 75% chance of finding the information they need^{vii}'.

Consequently, it has become important for organisations operating in the age of information and communication technologies that are readily accessible to its employees to implement or strengthen records management programmes by implementing EDRMS that manage their corporate information including emails in both paper and electronic formats.

This has resulted in a paradigm shift in recordkeeping responsibilities from trained Records Managers (RMs) to the employees or knowledge workers in the organisation. This

Story Snapshot

- The ways corporate information is transmitted within organisations have changed dramatically
- A study was undertaken to determine whether EDRMS users are seeking information as the systems' designers intended

means knowledge workers need to have an understanding of: what is a record; when to capture and register information into the EDRMS; what metadata needs to be captured when registering information; and importantly how to search and retrieve this information for their work or tasks.

The latter is the impetus for the research conducted to investigate how knowledge workers searched for and retrieved information from their EDRMS. Or what is the information seeking behaviour of EDRMS users? And does this behaviour match with the manner in which RMs manage corporate information in EDRMS? The details of this research and the findings were reported in a three part series of articles republished in *iQ* in November 2007, February and April 2008^{viii}. The focus of this article is on the observed barriers to information seeking from this research and how these barriers can be overcome.

BACKGROUND TO THE RESEARCH

The aim of the research was to investigate if the way electronic document and records management systems are designed to work match the way knowledge workers or users of the system search for information. A case study approach was taken to investigate how four sampled organisations had implemented their records management programmes benchmarked to the records management standard ISO 15489^{ix} in the EDRMS implemented.

Interviews were held with each of the four RMs to find out how RM principles were implemented in their organisation. A demonstration of the EDRMS was provided to the researcher as well to gain insight into its design and working. The RMs were requested to identify 10 EDRMS users in their organisation and it was requested that these users represent a cross section of uses from various business units.

Firstly, interview sessions were conducted with each of the

40 users to find out their information searching patterns using the EDRMS. Secondly, the users were asked to describe and demonstrate how they conducted their last simple and difficult searches in the EDRMS.

For a detailed description of the research methodology and data analysis conducted, see the previously republished article in the February 2008 issue of *iQ*^x.

The information seeking behaviour model of EDRMS users was derived as one of the findings in the research and was republished in the February 2008 issue of *iQ*^x. This model is presented in Figure 1 in that article.

All forty EDRMS users reported performing a linear sequence of information seeking processes from the time they started a search to when they ended it, as presented in Figure 1. These information seeking processes conformed to the following seven stages:

- Stage 1:** Start Search;
- Stage 2:** Formulate Search Strategy;
- Stage 3:** Execute Search;
- Stage 4:** Process and Evaluate Search Results;
- Stage 5:** Access Search Results;
- Stage 6:** Decision Making about Search Results; and
- Stage 7:** End Search.

At each of these stages, users were observed to engage in different types of information seeking activities such as browsing, navigating, sorting and refining their search, as shown in Figure 1.

Simple searches

The 40 sampled users perceived a simple EDRMS search as a search that required minimum effort by them to search for and retrieve the sought information to complete their task. When users demonstrated how they conducted their simple searches

they were observed to be successful in finding and retrieving their required information, thus were able to close their searches to end their information seeking process.

Difficult searches

Users perceived a search to be difficult when they had to spend more than five minutes and considerable effort to retrieve their sought information. In difficult searches, users were not able to successfully close their search as in their simple searches. Instead, users had to stop their search and then decide how best to acquire the information to complete their task. Eight users (30%) were observed returning to retry the search in the EDRMS again if required.

Users in 67% of the difficult searches were able to find the required information and close their searches. However, 33% of users could not find the required information and had to stop their difficult searches.

WHAT USERS DID AFTER THEY STOPPED THEIR DIFFICULT SEARCHES

Figure 1 describes users' information seeking behaviour once they decided to stop their difficult searches in Stage 7: End Search.

As shown in Figure 1, when users stopped their difficult search, they verified their current task related information clues by checking from other information sources and/or by seeking help from people resources.

They checked other information repositories in the organisation to verify the information was not stored elsewhere or sought help from people resources such as their colleagues, the records section or the HelpDesk to find out if they were able to help with searching or the information. Users then analysed if the sought information was found^{xii}. If it was found, they closed their search.



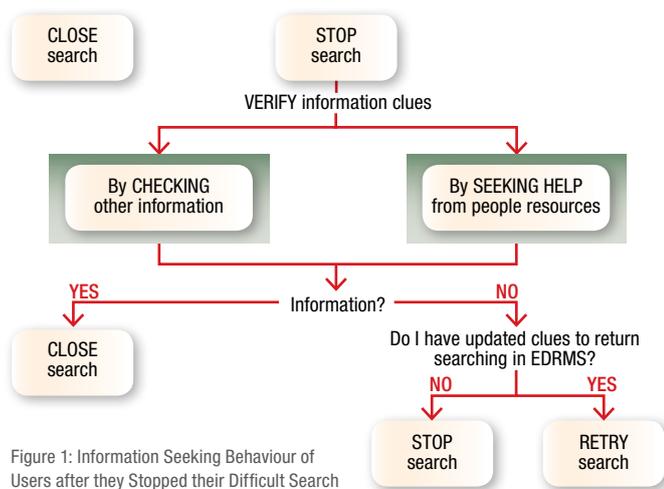


Figure 1: Information Seeking Behaviour of Users after they Stopped their Difficult Search

If not, users assessed whether their updated information clue/s would enable them to retry their search in the EDRMS. If 'yes', they retried their search formulation strategy by returning to stage 2 of the information seeking process. Otherwise, they stopped the search.

The above description indicates that when EDRMS users decide to stop their search it does not necessarily mean they have given up seeking their required information, as their tasks still need to be completed.

On the other hand, it highlights the additional time and effort they need to expend on tracking the required information, thereby affecting their productivity levels and building their frustrations working with these systems.

For these reasons, RMs need to be aware of the information seeking behaviour of their EDRMS users and take the necessary actions to address the barriers identified next from the research findings.

IN THE NEXT ISSUE

In part 2 of this article, which will appear in the February 2010 issue of *iQ*, the reasons why barriers to information seeking behaviour were experienced by the survey group will be identified, with suggestions for RMs on how to overcome these barriers. Additionally, the implications of the findings will be discussed. **iQ**



About the Author

PAULINE JOSEPH, ARMA graduated from Curtin University of Technology, WA, with an Honours degree in Information and Library Studies in 1991. She is currently an Associate Lecturer

at Curtin University of Technology, lecturing in records and archives management. A qualified librarian, she has spent 17 years as an information management professional, working in both the government and private sectors in Singapore and Western Australia. A more detailed author biography will appear with the next and final instalment of this article.

• Pauline may be contacted at: Telephone: +61 8 9266 7180. Email: p.joseph@curtin.edu.au

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- ii Corporate information includes both corporate documents and records.
- iii The 2006 Information Management survey among 1,385 business decision makers, was conducted by YouGov on behalf of Hummingbird Ltd now taken over by Open Text Ltd to research into the ability of UK business and public sector organisations to cope with the rapid increase in information sources.
- iv Open Text Ltd. (2006). Hummingbird Announces Findings of Information Management Survey 2006. Retrieved 15 June, 2008, from <http://www.hummingbird.com/international/uk/press/2006/200906.html?searchType=Basic&searchText=YouGov&rank=1>
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- xii For example, the sought information was stored in the network drive, held as a paper copy or CD-ROM and not registered in the EDRMS.