

**Article on:**

**“Knowledge Management in an academic library”**

Case study:

KM within Oxford University Library Services (OULS)

**Abstract:**

The author of this article endeavours to examine a complex Knowledge Management (KM) concept through a practical approach in the knowledge environment.

This paper attempts to distinguish information from knowledge and define Knowledge Management. The article focuses on the KM elements in the academic environment with particular reference to the Oxford University Library Services (OULS) and outlines the need to include KM in library strategy in order to retain ‘Know-How’ for the benefits of its staff and users.

Tools and techniques for KM implementation are discussed and risks and benefits analysis is offered.

**Key words:** *Knowledge Management, Academic Library, Knowledge-Sharing, Organisational Know-How*

This is an extended version of the IFLA presentation:

<http://www.ifla.org/IV/ifla70/papers/089e-White.pdf>

### ***Introduction***

Knowledge Management (KM) is a relatively new discipline in the information and library environment, which originated in the early 1990's in the private sector to help companies survive in an ever faster-moving and competitive environment.

The advent of the so-called "e-revolution", through the growth of global networks has accelerated the use of KM in many organisations, including those in the library and information environment. In the 21st century KM is increasingly becoming a crucial tool in providing a dynamic and effective service to library users.

Management gurus, such as **Peter Drucker (1999)** asserted, that for industries and institutions "the most valuable assets of a 21<sup>st</sup>-century institution, whether business or non-business, will be its knowledge workers and their productivity". This affirmation was taken up by many organisations, including the library sector. In recent years a series of talks have been held on the "knowledge economy" (**CILIP 2002**) and the "knowledge age", making KM a "hot agenda topic".

Knowledge Management has already been successfully implemented in government and health care information sectors. The researcher has developed an interest in the topic of KM in the academic sector through her work at Oxford University Library Services (OULS), which has been undergoing a major transition to becoming an integrated library. The library centralisation project has thus provided the author with a key opportunity to examine OULS' organisational culture and processes, for example, how KM could potentially smooth the change process and make the organisation as competitive as possible capitalizing on its intellectual assets.

### ***KM definition***

Through conversations and correspondence with colleagues and academics alike in the Knowledge Management field, the author recognises a particular bone of contention in a definition for KM, which, over time, has taken on various forms across literary sources.

Based on these observations, the absence of a general, agreed definition for knowledge management risks clouding rather than clarifying its *raison d'être* to new and existing audiences and thus losing credibility.

**Michael Earl (2004)**, Professor at Oxford University, recently presented views on KM in an article for *The Financial Times*. Over the course of his work and having studied more than 40 companies, which have implemented KM initiatives over the last 15 years, he found that there prevails a degree of confusion in organisations in defining KM, which affects their ability to decide on what comes with it and 'where they should start to make it work'.

When working on the theme for this case study, the author felt it was necessary to set out a working definition of KM in advance of assessing processes and providing recommendations. This definition has been developed following extensive analysis over a number of years of KM theory and practice and is a variation on the **CILIP** definition:

<p><b>Knowledge Management</b> is a process of creating, storing, sharing and re-using organisational knowledge (know-how) to enable an organisation to achieve its goals and objectives.</p>
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KM is not just about implementing "bits and pieces", it is a complex process to achieve the main aim of benefiting the organisation. One cannot claim that KM was implemented in an organisation, based only on fact of the existence of one or more KM elements.

### ***KM and academia***

One of the first significant articles on Knowledge Management within Higher Education appeared in 1999 in the electronic journal 'Ariadne' by **Sheila Corral**. This challenged many

aspects of KM in how it could be applied to HE institutions. With its origins in the business environment, KM has been seen as an attractive antidote to resolving the many problems librarians face in the fast-developing information environment.

"People often used to describe librarianship as the organisation of recorded knowledge, so perhaps our time has come?" challenges **Corrall, S. (1999)**

**Hayes, Helen (2004)** also noticed a high degree of collaboration amongst librarians, saying that they are: "increasingly seeing their role as working with faculty and students, technologists and learning and teaching specialists to create new service models and new ways of all working in a knowledge environment - a role, which we are eminently qualified to fulfil". Then she adds: that: "for universities to be competitive in the knowledge economy and create greater opportunity for research, innovation and learning, they must effectively manage their knowledge assets".

Notably, librarians generally know more than anybody else as to how organisations' information resources work. The process of organising chaotic waves of incoming information into a sensible, accessible form is a core of the librarian's job. But although familiarity of the process leads many of us into an assumption, that we are knowledge managers, there is far more to knowledge management than this - it is operational knowledge KM is after. "While librarians are learning to be proactive in the delivery of scholarly knowledge, they need to use many of the same techniques to share operational knowledge within the library". **Townley, C. (2001)**

#### ***KM in the OULS context***

The recent history of the library structure at Oxford University has seen a co-existence of separately administered academic libraries.

In the late 90's various committees of eminent academics sat to discuss how the University could improve its service to readers into the 21<sup>st</sup> Century. The conclusion of these discussions was to bring the independent library services together to form an integrated OULS under centralised administration.

It was clear from the beginning that integration presented over 600 OULS staff with a significant challenge as, by its nature, Oxford University Library Services has a high number of over 30 libraries offering very diverse services.

Given the significant changes in the running of library services, the intention with this case study was to provide an additional tool in assessing staff perception of change, knowledge creation and sharing at OULS.

The research was conducted in Spring 2003 with the agreed support of the Bodleian and OULS' Director, Reg Carr, who introduced this study to many OULS employees and encouraged a high response rate from all staff levels (averaging 70%).

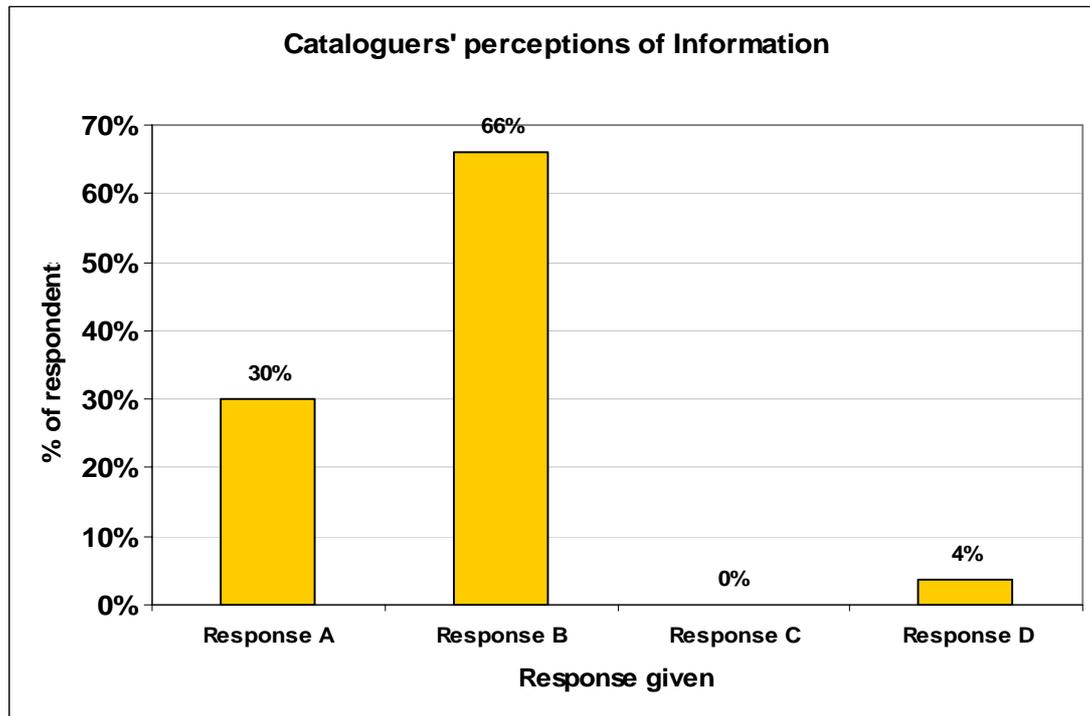
The areas surveyed covered following three groups: 51 OULS *cataloguers*; 53 "*key people*" (**Sveiby, K., 1994/1996**) - (OULS Strategy team; Project Managers; Personnel, IT, Subject Specialists); 78 *Reader Services staff* (front line and workers behind the scene-stack staff)

#### ***Information and knowledge***

In recent KM literature there have been many theories about seeing librarians, cataloguers in particular, as knowledge managers. The researcher's aim was to test this assumption by examining cataloguers' perception on information, knowledge, KM overall and how the surveyed groups distinguished knowledge from information.

**Nonaka I, Takeuchi H (1995)** states that: 'although the terms "information" and "knowledge" are often used interchangeably, there is a clear distinction between information and knowledge'. Cataloguers were asked how they define those terms.

The following graphs demonstrate from the case study – survey results the possibility of both defining and gaining conclusive data in the most sensitive areas of KM: *Figure 1 "Information"*



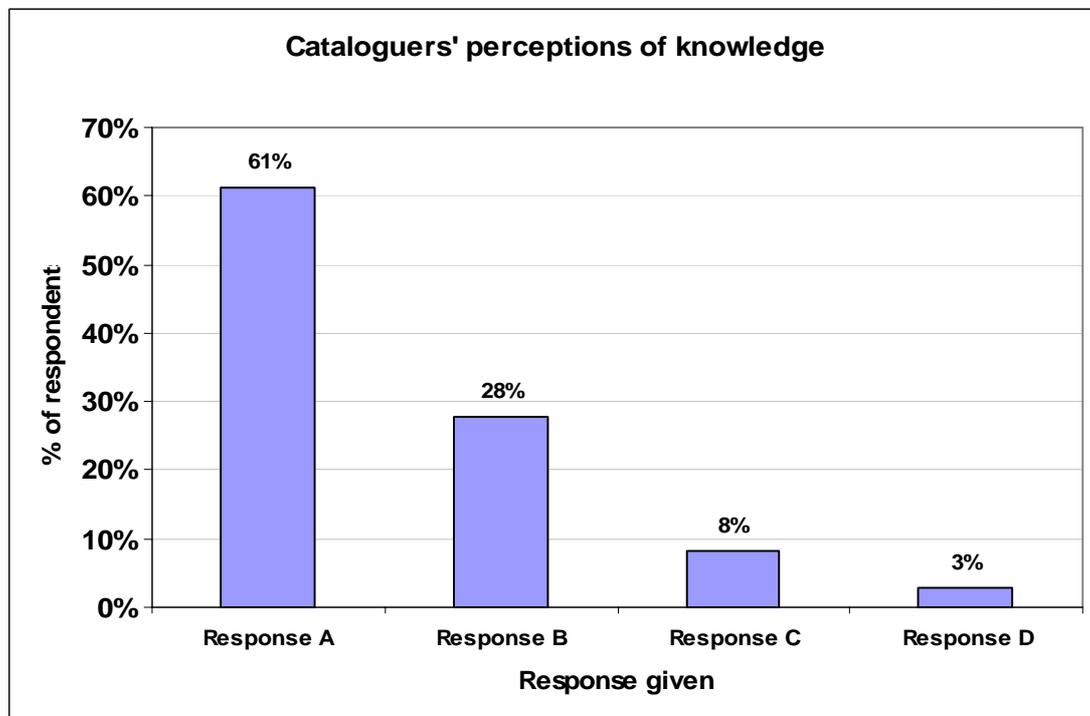
**Response A)** - Is meant to change the way the receiver perceives something to have an impact on his/her judgement and behaviour (**Davenport, T.H, Prusak L, 1998**) p.3

**Response B)** - Must inform the receiver

**Response C)** - Is the same as data

**Response D)** - Other(s)

*Figure 2 "Knowledge"*



**Response A)** - Awareness or familiarity gained by "experience" (**Collins Concise Dictionary,1995**)

**Response B)** - The sum of data and information

**Response C)** - The proof of what I know;

**Response D)** - Other(s)

The responses indicate that information is passive in nature, whereas knowledge is a dynamic and active resource, residing in peoples' heads (**Polanyi, 1962**).

The question often put at this stage is: if knowledge resides in people's heads, how we can manage it? Do cataloguers manage knowledge or information? For many years cataloguers have been organising information, but with the appearance of new terms such as 'the knowledge era' and 'the knowledge economy', LIS (Library and Information Services) professionals started describing cataloguing as a KM activity.

Consequently, the researcher was keen to gain feedback from cataloguers on what their perception of Knowledge Management is. Interestingly:

- The majority, i.e. 60% of respondents, deemed KM to fall in the category of being the management process, which enables the organisation to use and re-use employees' knowledge. This would also give credence to the working KM definition mentioned previously.
- On the question: "What do you regard Knowledge Management being about?", 90% of those surveyed considered KM to be about people and their knowledge, whereas 10% attributed KM to IT and software programs.

### ***KM elements in OULS***

In the case of organisational knowledge, librarians need to select and use the knowledge that is most critical to achieving library goals (**Townley, C, 2001**).

In any KM programmes, "the first step is to identify knowledge which can be considered as an asset" (**Wiig, K. M. 1993**).

Finding an answer the question: "What knowledge is most crucial for an organisational success?" remains the most difficult in KM process. This is where Knowledge Gap analysis (**Zack, M 1999**) could be a useful tool.

Successful KM and organisational development is also about planning knowledge acquisition. This could be achieved through training, attending conferences and communication with peers. The researcher's intention was also to learn what the surveyed groups understood their future knowledge level requirements to be, with the following results.

- On the question: "Work-related knowledge required in 5 years" the main responses were as follows: 47% of OULS key workers specified IT skills, 18% - Web development. 13% thought they would need to enhance their knowledge level in HR/Legal matters.
- Most cataloguers i.e. 28% of them would like to gain more knowledge of e-resources, 19% on metadata, and 17% on XML.
- 64% of front line Reading room staff considered it would be beneficial if customer service training was provided for their group.

### ***Knowledge sharing***

IT has provided us with a number of possible solutions for sharing recorded human knowledge via e-mail, intranets and knowledge bases. The human factor drives the process of sharing knowledge, experience, and wisdom. As people and culture are the keys for any successful knowledge-sharing activity, the researcher wanted to see if this culture and understanding of the importance of KM sharing is present at OULS. KM programmes generally fail if there is no knowledge-sharing culture in place.

**Thomas Davenport (1998)** rightly points out, that “knowledge is created invisibly in the human brain and only the right organisational climate can persuade people to create, reveal, share and use it”.

- The surveys outlined OULS staff’s willingness and readiness for knowledge sharing: 85% of OULS cataloguers are ‘happy to share all they know with their colleagues, because they know that is beneficial to the organisation’.
- A knowledge-sharing programme could help the organisation to implement a technological change. Following implementation of the Automated Stack Request (ASR) system at OULS a few years ago, 77% of staff mentioned, that sharing knowledge and experiences is important in an implementation process.
- The research has shown that the majority of OULS staff know the library’s goals and objectives. This knowledge is important, as staff reflect their personal development through organisational goals.

Most OULS staff, up to Director level, consider OULS to be a **learning organisation** (Skyrmer, D, 2003)

- 59% of knowledge workers agreed, that we learn a great deal about the library’s progress from the users. 33% weren’t sure. As the library is a service-oriented organisation, it is important to understand the role users play in planning and organising library operations.

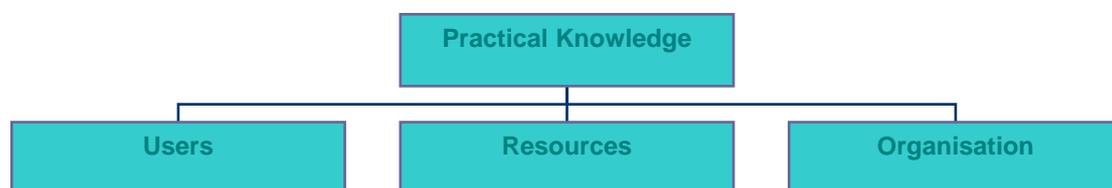
**Know-Why?** In response to the question **Why share knowledge?** 80% of surveyed OULS key workers stated that knowledge is lost when a member of staff leaves the organisation. It was recognised that retaining and recording knowledge can add value to library services and save on staff re-training costs.

When knowledge is very specialised, in areas such as manuscript collection, OULS has adopted a model of re-employing valuable retired staff as advisors on ad hoc projects.

“Know-Why” comes together with “Know-How”. According to Klein D.A. (1998) “both “Know-How” (what people learn) and “Know-Why” (how they understand and apply that learning) are important for the learning organisation”.

### **Organisational ‘Know-How’.**

Assessing OULS as a sample organisation, the researcher realised, that there should be a formula for library ‘Know-How’, shown below:



© Figure 3 “Library Know-How”

The practical knowledge of the organisation, its resources and users make, in the researcher’s opinion, a model for library ‘Know-How’. Library ‘Know-How’ resides in the heads of library staff and is embedded in their working practices and culture. Without at least one of the above 3 building blocks, the ability of staff to “know which tasks to carry out and how” is lost.

### ***What are the 'Pros' and 'Cons' of KM in academic library?***

The researcher has drawn up a list of risk and benefit factors which may be considered before implementing KM in an academic library.

Amongst **benefits (Pros)** are:

- Better ROI (Return on Investment)
- Improved measures of performance
- A greater understanding of organisational goals
- Lesson learned on organisational change
- Knowledge of long-serving staff is retained within the organisation
- A deeper understanding of user's requirements through constant evaluation of the services and its improvements.
- An opportunity to see ourselves not just service-oriented, but mostly "value-oriented" **(Corrall, 1999)**

**Risks (Cons):**

- Hard to capture knowledge and manage it within a large, diverse organisation, such as an academic library.
- Difficulty to embed KM strategy into an organisation's existing strategy.
- Fear of staff moving out of their "comfort zone" because of the knowledge they possess is passed on to colleagues.
- Financial constraints for knowledge sharing incentives.
- Protection issues are not well addressed in an organisation
- Possible fear amongst Library Directors to embark on a new venture of KM, because of its infancy in development.

KM should always start small, i.e. pilot projects, and then be widened after operation in small scope has shown to be successful **(Davenport and Prusak, 1998)**

### ***Mastering KM***

If KM is such a good thing, should we consider acquiring some additional training or develop skills on job and apply KM tools?

- Knowledge retention and recording is not an easy process. Frequently specialist knowledge of collection and processes is lost either because it has not been documented or because it is difficult to capture by documentation. This is of course an issue in KM, but could be resolved by adopting the right mechanism for converting knowledge into information for use. Mentoring and coaching could definitely assist in knowledge transfer projects.
- Any integration, centralisation, or merger requires change management skills to avoid excessive stress levels during the change. These skills could be obtained through special training via Staff Development and Training Department on developing adaptive and pro-active staff approach. Ultimately KM could accelerate integration, centralisation, change and vice-versa.
- At OULS, performance measurements are applied, such as Staff Development Review and Staff Merit Awards Review. The spectrum of merits could be broadened to commend a sharing culture. These incentives could be addressed not only through local library staff development budget, but also via national and international awards and grants for best professional achievement in the KM sector.

- SWOT analysis could assist an organization in providing a strategic outlook. (**Zack, 1999**)
- The use of intangible asset monitoring (**Sveiby, Karl-Erik, 2001**): and/or balanced scorecards (**Kaplan, Roberts S., David P. Norton, 1996**) would help library staff to measure their intellectual assets. There is also a gap in KM literature and library practice as to how KM works in capitalising the intellectual assets of library workers.

### ***Conclusions***

- There is a distinction between information and knowledge.
- KM is possible to define as a management process, which enables the organisation to use and re-use employees' knowledge in achieving organisational goals and objectives.
- KM's success depends on many KM elements, some of which are presented at OULS.
- Realisation of an organisational Know-How could help to retain organisational knowledge for the benefits of its staff and users and provides an opportunity to see a learning process in practice.
- Academia needs KM and could give us an opportunity to see ourselves not just service-oriented, but mostly "value-oriented"
- KM works better when initiated as a pilot project work under one framework
- Knowledge of KM tools and techniques is important in the KM process
- KM could accelerate integration, centralisation, change and vice-versa

Similar conclusions could be drawn from more recent case studies of KM in all sectors.

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