

Skills for the Knowledge Economy: a one day seminar

RSA, London, 5th July 1999

Skills for Knowledge Management

A briefing paper

by

TFPL Ltd

**Based on research undertaken by TFPL on behalf of
The Library and Information Commission.**

July 1999

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The Knowledge Economy

The knowledge economy has become a reality for many organisations and nation states. The rapid development of information and communications technology (ICT) has changed the basis of trading and doing business. The wealth of a nation no longer depends on its ability to acquire and convert raw materials, but on the abilities and intellect of its citizens and the skills with which organisations harness and develop those abilities. The success of organisations depend on their ability to operate in a fast moving and global market place where customers are increasingly knowledgeable, have a rich landscape of choice and where the relationships between supplier and client are changing. Individuals are operating in increasingly complex environments where their ability to navigate and utilise information, learn new skills and feel comfortable in ambiguous work situations, has become as important to success as academic achievement.

For organisations to compete effectively in the knowledge economy they need to change their values and establish a new focus on creating and using intellectual assets. To be successful in this environment individuals need to acquire new combinations of skills. In particular they need to learn skills that allow them to find, manage, share and use information and knowledge – they need ‘information literacy’ skills.

By stimulating an environment where intellectual assets are created and used efficiently and effectively, organisations can increase their ‘organisational capability’. By acquiring information literacy skills individuals can increase their ‘individual capability’. Increasing both organisational and individual capability is the primary success factor in the knowledge economy. This focus on intellectual assets and information literacy requires new approaches to the management of information and knowledge, and to the environment in which it is created and used. It requires a new combination of skills that embrace every aspect of the complex information world in which we live.

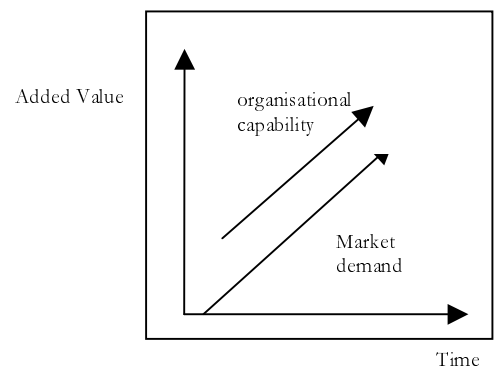
“Over the next twenty years, companies, government and individuals will face increasing difficulties in an environment of increasingly complexity.

...we have enormous positive potential, including technology, improvements in communications, availability of capital, and great increases in the quantity and availability of information...”

Open Horizons: three scenarios for 2020. The 1998 report from the Chatham House Forum.

“The purpose of our knowledge initiative is to harness the potential of our technical infrastructure across the firm to enhance the agility of The Mutual Group and to accelerate the generation of individual and organisational capabilities.”

Hubert Saint-Onge



The organisation is increasing its capability ahead of market demand – which allows it to shape the market.

Skills for Knowledge Management

Knowledge management (KM) concepts and strategies are making their mark on organisations of all sizes and in all sectors. A recent survey of chief executives put knowledge management second on their list of 'must-dos' behind globalisation. The concepts behind knowledge management are about succeeding in business – about enabling organisations to meet their corporate objectives. The business strategies of many organisations depend on their staff working together effectively and creatively, and on their ability to innovate and respond to the marketplace. Knowledge management is about facilitating this marketplace success. So while the label 'knowledge management' is beginning to be questioned, 'knowledge initiatives' reflecting KM concepts are rapidly becoming a way of life. They have become the next phase in the continuous process of improving business performance.s

"In a global economy, capital is mobile, technology spreads quickly and goods can be made in low cost countries and shipped to developed markets. British business therefore has to compete by exploiting capabilities which competitors find hard to imitate. The UK's distinctive capabilities are not raw materials, land or cheap labour. They must be our knowledge, skills and creativity."

DTI. Our competitive future: building the knowledge economy. HMSO, 1998. Cmnd 4176

Objectives and techniques of the research

The KM philosophy states that no single department or function can deliver corporate objectives alone. Corporate capability is created by:

- the skills and expertise of the staff;
- their ability to learn and to build knowledge;
- the processes which enable their skills and knowledge to be applied and shared;
- the culture and values which encourage knowledge building and sharing;
- the infrastructure (IT and physical), which supports knowledge building, flow and sharing; and
- the intellectual assets which the organisation builds, maintains, organises and exploits.

Although it is apparent that information management is very much part of the KM environment, it is only one part, and only truly effective when applied with an understanding of the full KM picture.

"In the industrial era information was like gold, providing those who had it with advantage and value. Today it is like milk. An ample supply which goes sour if not used within a short space of time."

Gerry McGovern. Chief Executive, Nua. Re-inventing human interaction in the e-age. European Business Information Conference, 1999.

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LIC commissioned this research in order to:

- gain an understanding of KM and the roles, skills and competencies needed in these environments;
- assess the implications for the library and information profession if its members are to play a full part in KM;
- assess the routes available to people wishing to develop KM skills;
- examine the need for information literacy throughout KM environments.

The research was based on wide consultation with KM practitioners, representatives from KM environments, KM experts and groups. Techniques included a mix of desk research, interviews, questionnaire survey, compilation of case studies, workshops and market testing. The research team identified organisations implementing KM initiatives in Europe and North America. Working with these firms, they mapped emerging KM related roles, and the skills and backgrounds of people recruited to undertake these roles.

Key conclusions

From Knowledge Management to Knowledge Activities

Knowledge Management is already losing its capital letters. Large KM programmes are seldom a reality and the most common approach is the introduction of a number of identifiable, and achievable KM activities. These 'quick wins' are selected as important to the main business of the company and therefore likely to have impact. Their cumulative effect contributes to changing behaviour and attitudes to sharing and building knowledge. The term KM is typically used with extreme caution and many activities are not labelled in this way.

Roles

Most organisations are still defining their KM roles, and some are a re-alignment or extension of existing posts. There is also a mix of full-time, part-time and additional duty roles. Until recently most people moving into these roles came from within the

KM planners and facilitators:

A small multi-disciplinary team responsible for developing policy, standards and tools. The team will typically undertake the following roles but, depending on the size and approach of the organisation, one person may take on a number of them:

- **director** and/or **manager** role to oversee and champion KM activities;
- a **content structuring** role providing standards and policies for design structure and quality of knowledge repositories or acquisition;
- an **IT infrastructure** and IT tools role developing IT solutions for knowledge capture and sharing;
- **intranet, extranet** activities, including the policy and standards for content and design;
- a **knowledge network** role, responsible for developing a network of knowledge practitioners, KM expertise and processes within communities and business units. This role may include development of job specifications, training programmes, motivation and reward etc (sample post title, Knowledge Network Co-ordinator);
- **human resource** activities, such as motivation, rewards, job descriptions, mentoring; training and development of 'knowledge practitioners'. This may be an additional role to the Knowledge network co-ordinator;
- **project management**. This may be a separate role to ensure KM activities are implemented;
- **external information** strategy, including supply management and integration with internal information. It may be part of the content role;
- **internal marketing** of KM concepts and activities. Generally inherent in all roles this may be a specific responsibility of the network co-ordinator;
- **help desk** roles to provide assistance to communities or groups on the use of IT applications, research support, KM techniques etc. This could be first line research request or sign-posting function;
- design of KM and information **training**.

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organisation, but the last six months has seen an increase in the number of roles and more external recruitment.

KM in every organisation is unique and the KM roles reflect this. These roles have a variety of job titles with varying definitions; some are explicitly labelled KM, others are not. It is, however, possible to draw a top-level 'generic' framework of roles and responsibilities which would be recognised by many organisations, although they may not have taken exactly that path.

People

The CKO role is almost without exception filled by someone from within the organisation who knows the business and internal politics and who has the respect of people at all levels. This may change if the KM approach becomes established but while the role continues to be regarded as one of change management it is likely in most cases, although not all, to be allocated to a senior manager within the organisation. Many of the roles that are evolving as a result of KM activities have become career development roles for interested staff. Those moving into the roles have diverse backgrounds. Common features are that they generally have demonstrated an interest in the organisation and have a good grasp of the sector in which it operates. Flexibility and willingness to take on tasks outside their own professional area, and the ability to be opportunistic and persuasive, are also key. They are business rather than function or discipline orientated.

The most significant features of people who have successfully developed KM roles are their breadth of experience, maturity of approach and ability to 'think outside their box'.

Skills

There is a great deal of interest in this area of research and in the complementary area of the development of management skills. The overlap between recognised management competencies and those required for successful knowledge practitioners are significant. This reflects the fact that these roles require skills

KM practitioners

A range of full and part time roles supporting business units or communities:

- **knowledge leaders**, responsible for championing the KM approach in their business unit, quality of knowledge activities and decisions over confidentiality etc;
- **knowledge managers**, responsible for the acquisition and management of internal and external knowledge (sample post titles Knowledge Manager, Knowledge Centre/Hub Manager);
- **knowledge navigators**, responsible for knowing where knowledge can be located (sample post titles Knowledge Navigator, Knowledge Broker, Knowledge Co-ordinator, Researcher, Analyst);
- **knowledge synthesisers**, responsible for facilitating the recording of significant project/unit knowledge. (sample post titles Knowledge Steward, Knowledge Broker, Knowledge Manager, Projects Journalist);
- **content editors**; responsible of codifying and structuring (sample post titles Knowledge Manager, Knowledge Broker, Content Editor);
- **publishing**; responsible for internal publishing functions, principally on an intranet (sample post titles Web Master, Knowledge Architect, Communication Manager);
- **coaching and mentoring** roles, responsible for assisting individuals throughout their business unit or practice to develop and learn KM activities and disciplines;
- **help desk activities**, including the delivery of KM and information related training (sample post titles Knowledge Assistant, Knowledge Broker, Information Manager).

Enterprise wide workers

- 'Knowledge workers' in that they are using, manipulating, interpreting and acting on information, and require a knowledge level that empowers them to make decisions and act on their own initiative.
- Information intensive roles such as Strategic Planning, Competitive Intelligence and the Board

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associated with change and project management and that practitioners are often needed to influence attitudes and management style. The ability to work in complex organisations, to cross boundaries and to navigate political waters is characteristic of KM players. Teams and communities feature high in KM approaches; team skills and community understanding therefore become increasingly important. Building multidisciplinary teams in order to achieve KM objectives requires people and management skills. Making those teams effective calls for leadership and facilitation skills. Coaching, training and mentoring have become increasingly important in developing KM communities and teams, in supporting KM activities, and in developing information handling skills throughout the organisation.

The findings emphasise the importance of information management skills in KM environments, but show that people employing these skills in a knowledge environment do not necessarily come from the information profession. Many of the traditional LIS skills are invaluable but need to be applied in a new context and linked to business processes and core operations. Employers demand of staff the ability to understand the organisational context in which to apply professional skills. Understanding the business and its processes is crucial for KM players, whether they are strategists, planners, facilitators, or day to day practitioners of a discipline.

Communication is also at the heart of the KM environment and many skills are represented by the catch-all phrase ‘communication skills’. Verbal, written, and presentation skills, are required in order to influence, persuade, negotiate and share knowledge.

It is apparent that an understanding of the complex information flows that underpin any enterprise is a prerequisite for designing information strategies to support a KM environment. Figure 1 represents the relationship between the core professional or technical competencies, the ‘survival’ skills required to be successful in increasingly complex organisations and ‘KM enabling’ skills.

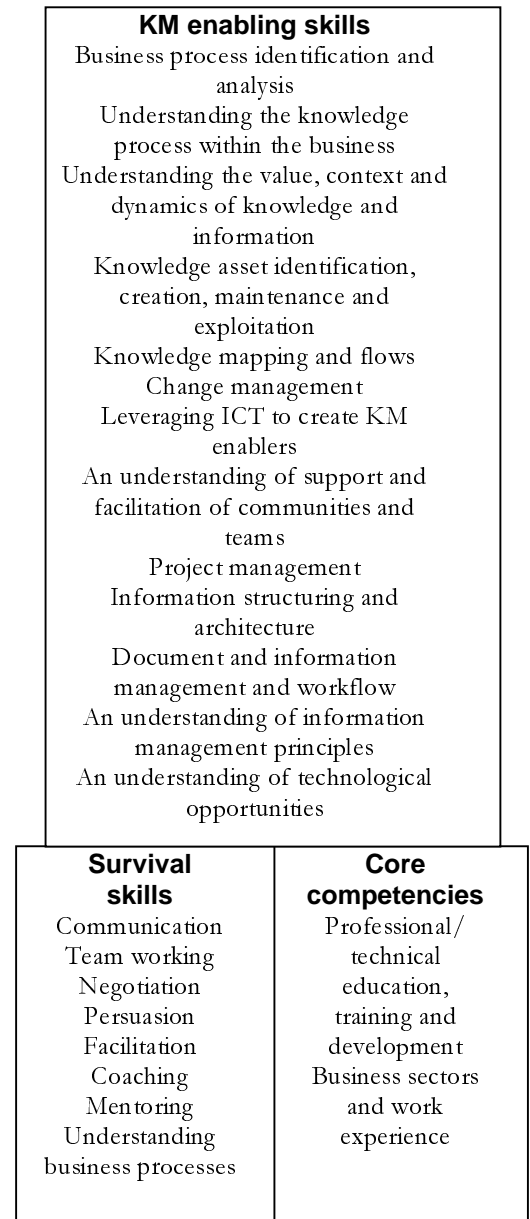


Figure 1

Enterprise wide information literacy

The skills and competencies required throughout a KM organisation are a key discussion topic in the KM arena. The initial focus has been on the development of knowledge sharing behaviours and activities but as KM activities begin to have an impact throughout organisations other concerns emerge. Do all individuals have the ability to operate in an information and knowledge rich environment? Are they able to:

- use information and knowledge tools on their desktop;
- navigate and interrogate information sources;
- assess and evaluate information found or knowledge shared;
- create, record and store information?

Do they understand the potential value of relevant information?

It is evident that an understanding of information management principles is required throughout the organisation. The development of corporate taxonomies, for example, indicate a recognition that the 'organisation of knowledge through structure and code is key to accessing relevant, filtered information. Similarly, the mechanisms in place to assist the recording of information, sharing of knowledge and navigation need to be understood by those using them in order to maintain quality and demonstrate benefit. Computer literacy has had a high priority for a number of years in order that everyone can use IT tools as part of every day working practice. The same attention to information literacy and to sound information management practice is required. The concepts of information sharing, utilisation and creation imply a level of information handling skill which has been taken for granted but not defined or explored in any depth.

Find, appraise, use

- take a structured approach to defining questions;
- navigate through information sources;
- evaluate the relevance, reliability and quality of information obtained;
- filter out irrelevant and superfluous information;
- synthesise and apply to the decision making process;
- record conclusions and reasoning.

Core literacy?

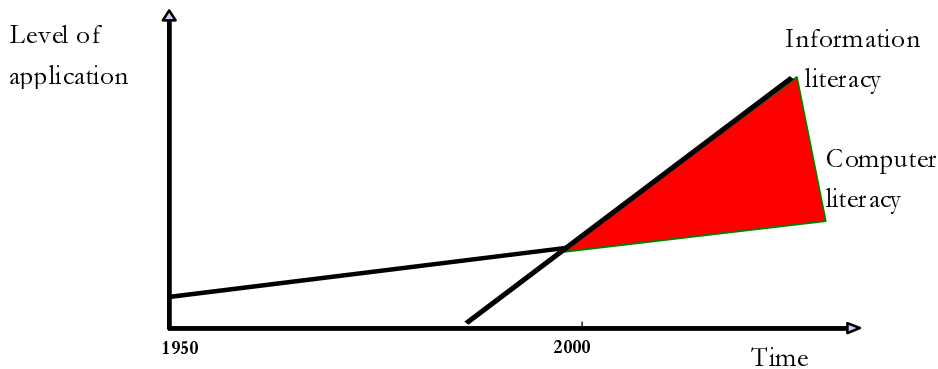


Figure 2

Information professionals in KM environments

The above model identifies skills already possessed by LIS professionals. It also includes others that they need to acquire. However, the research findings point to a problem that is more fundamental than a simple skills map may suggest.

Corporate information flows are complex and organisations are increasingly recognising that it is crucial to understand and manage their information. But the history of treating different types of information as discrete entities means that there is no one profession or function that understands or addresses the whole. The LIS profession has focused largely on the acquisition and distribution of external information. Although desktop access to information resources has expanded this focus, the LIS professional often still has narrowly defined information horizons. Similarly, records management, which is gaining a higher profile in KM environments, has developed its own particular discipline. Document management has evolved from IT and workflow routes. At the same time many other functions have developed information management capability. Market research, strategic planning and competitive intelligence departments are examples of information rich areas that often set up their own systems. Equally, customer relations, sales, technical support, research and development, all use information management tools, and IT professionals are particularly strong on key KM skills such as project management.

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So a range of skills contribute to the KM information picture. The KM environment can exploit the experience of a number of people, with diverse backgrounds, who relate to different aspects of information management. In addition new corporate roles are attracting a range of professions, such as the journalist and writers who help capture best practice. A breed of 'can do' people is evident, who relate more to opportunities than functions, and who are attracted to KM roles. In contrast the LIS profession appears to have had little impact on KM organisations. Whilst it is true that a few 'mature' KM environments are actively integrating LIS skills into their KM teams, many are late in discovering that these skills exist. And it is sobering to note that some organisations see a limited involvement for LIS professionals, despite the development of imaginative and relevant courses in LIS academic departments, because of their perception of a profession that seldom engages with 'the business'. Still more disturbing is the lack of use of the wealth of information theory directly relevant to KM concepts, in the LIS literature but which is seldom, if ever, referenced in KM literature.

The KM phenomenon presents the LIS profession with a unique opportunity to make an impact in organisations of all sizes and in all sectors. But to take advantage of that opportunity individual professionals need fully to understand the potential of those skills and the business objectives of the organisations that employ them. More fundamentally, we need a profession that represents the range of skills that are required to manage complex corporate information.

Recommendations

Understand

- KM concepts
- The business context
- LIS skills and their relevance
- What skills make these effective
- The complexity of enterprise wide information

Develop

- Awareness workshops and events;
- Distance learning materials
- Experienced based learning
- Mentoring networks and role models
- Partnerships with other professional bodies and organisations to gain and transfer skills
- Working relationships with employers
- A profession that reflects the complexity and range of information management skills within corporate bodies.
- A virtual professional suniversity
- Centres of excellence
- Accredited modules

A national framework for the diverse range of professions and skills that make up information management

Recommendations

Knowledge management concepts and activities have raised the awareness of information and information management issues in organisations in all sectors. For probably the first time, senior management is concerned to manage and maximise what they perceive as possibly their key resource. Information has moved centre stage and has therefore created opportunities for those who are able to contribute and apply it with appropriate skills and expertise. The research has shown that while the information profession now has the potential to make a significant impact in corporate environments, there are significant changes and developments to be made. But the current window of opportunity will not last forever and waiting for radical change before taking any action generally means missing the boat. The recommendations of the research have therefore been categorised as urgent, short term and medium term.

Urgent objectives

1. To further develop within the LIS profession an understanding of :
 - KM concepts and strategies;
 - the skills and competencies needed for KM and the context in which they are applied;
 - opportunities for personal and professional development within knowledge environments.
1. To demonstrate the potential value of professional information skills in KM environments.

Immediate actions

We therefore recommend that:

- A programme of workshops, experiential learning and other events, are developed specifically to update the profession on KM concepts and associated management ideas. Such a programme should include input from public and private sector educators and employers and could possibly be modelled on the approaches of the *DTI Foresight Programme* or the *Evidenced Based Medicine Workshops*.
- The development of training and distance learning materials for people already in work. Such materials and events could be used by those people providing LIS education. This may include partnerships with commercial organisations or pump priming to develop 'mindset' and learning games and simulations.
- The development of partnerships between LIC or LIS professional/representative bodies, and other professional bodies representing broad information management concerns for two way skills transfer.
- The facilitation of mentoring networks for LIS professionals wishing to extend their areas of influence and expertise.

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- Publication of articles in the KM press by a wide range of LIS professionals promoting their involvement in knowledge activities.
- A programme of awareness activities, targeting corporate sector organisations, to demonstrate
 - the range of professional information skills available
 - their potential in KM environments
 - the body of information management work relevant to KM available in the academic library and information sector

Short term objectives

1. To establish a continuous development programme to encourage and enable LIS professionals to acquire a wider understanding of the corporate drivers and requirements, and as a means to acquire the additional skills required to thrive in the KM environment
2. To improve the understanding of the value of LIS skills within an enterprise wide environment.
3. To ensure that LIS education remains relevant to developments in the market.

Short term actions

A virtual 'professional university'

The creation of a virtual 'professional university' based on the model of the 'corporate universities' as a learning environment and utilising web technologies. This development would enable a variety of activities and self-development tools to be accessible to those in the workplace and could contribute to the learning materials available to LIS educators. The virtual university could encompass activities such as:

- self assessment tools, like the Library Association professional framework document but developed with a KM focus;
- access to online training materials, courses and facilitation;
- mentoring networks;
- facilitation of communities of interest;
- best practice models;
- development of 'role models';
- links to relevant professional associations and their education and development programmes.

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Accredited modules

In order to expand access to information management courses and KM related education, a series of workplace focused modules should be developed by partnerships between corporate bodies, academic institutions or commercial training organisations, professional bodies and KM practitioners. These should be accredited by participating academic institutions as part of post graduate qualifications in a variety of disciplines.

Centres of excellence

Centres of excellence in the area of corporate information management to be developed through partnerships between academic and commercial educators, corporate bodies and software/information vendors. Activities would include:

- academic teaching and learning models;
- professional research and development;
- practitioner liaison;

Medium term objective

To develop a national framework for the diverse information management related professions and activities.

Acknowledgements

The Library and Information Commission funded the core research with additional activities funded by TFPL. The research was undertaken by a TFPL team who were supported by a continuous flow of information, comments, and contributions from colleagues in TFPL, members of the Steering Group and many people who were interested in the project. We are grateful to everyone who contributed time, experience and advice. As a knowledge management learning experience it has been invaluable.

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