

ABC of Knowledge Management

*Freely extracted from the NHS National Library for Health at <http://www.library.nhs.uk/knowledgemanagement/>
by [Géraud Servin](#)*

*Creator: NHS National Library for Health: Knowledge Management Specialist Library
Contributor: [Caroline De Brún](#)
Publication Date: July 2005*

Table of Contents

1	WHAT IS KNOWLEDGE MANAGEMENT?	3
1.1	What is knowledge management?	3
1.2	What is knowledge?	3
1.3	Why do we need knowledge management?	3
1.4	What does knowledge management involve?	4
1.5	Some “textbook” definitions of knowledge management	5
2	PRINCIPLES AND PROCESSES OF KNOWLEDGE MANAGEMENT	6
2.1	Right knowledge, right place, right time	6
2.2	Types of knowledge: explicit and tacit	6
2.3	Types of knowledge: old and new	6
2.4	Ways with knowledge: collecting and connecting	7
2.5	Ways with knowledge: people, processes and technology	8
3	GENERAL CONCEPTS	9
3.1	A brief history of knowledge management	9
3.2	The “knowledge economy”	10
3.3	Knowledge management in the public sector	10
4	GETTING STARTED	12
4.2	KM toolbox – inventory of tools and techniques	14
4.3	After Action Reviews	15
4.4	Communities of Practice	18
4.5	Conducting a knowledge audit	22
4.6	Developing a knowledge management strategy	25
4.7	Exit interviews	29
4.8	Identifying and sharing best practices	31
4.9	Knowledge centres	34
4.10	Knowledge harvesting	36
4.11	Peer assists	39
4.12	Social Network Analysis	42
4.13	Storytelling	44
4.14	White Pages	48
5	DEVELOPING THE KM ENVIRONMENT	51
5.1	People	51
5.2	KM Processes	57
5.3	KM Technology	59
6	MEASURING THE EFFECTS OF KNOWLEDGE MANAGEMENT	64
6.1	Why measure?	64
6.2	What to measure? Common measurement approaches	64
6.3	How to measure?	66
7	KNOWLEDGE MANAGEMENT GLOSSARY OF TERMS	68

1 WHAT IS KNOWLEDGE MANAGEMENT?

Knowledge management is based on the idea that an organisation's most valuable resource is the knowledge of its people. Therefore, the extent to which an organisation performs well, will depend, among other things, on how effectively its people can create new knowledge, share knowledge around the organisation, and use that knowledge to best effect.

If you have read any of the huge array of knowledge management books and articles that are currently available, you are possibly feeling slightly bewildered. Perhaps you are wondering whether knowledge management is just the latest fad and hoping that if you ignore it, it will eventually go away. Let's be honest – knowledge management is surrounded by a great deal of hype. But if you can put the hype to one side, you will find that many of the tools, techniques and processes of knowledge management actually make a great deal of common sense, are already part of what you do, and can greatly help you in your job.

1.1 What is knowledge management?

Many of us simply do not think in terms of managing knowledge, but we all do it. Each of us is a personal store of knowledge with training, experiences, and informal networks of friends and colleagues, whom we seek out when we want to solve a problem or explore an opportunity. Essentially, we get things done and succeed by knowing an answer or knowing someone who does.

Fundamentally, knowledge management is about applying the collective knowledge of the entire workforce to achieve specific organisational goals. The aim of knowledge management is not necessarily to manage all knowledge, just the knowledge that is most important to the organisation. It is about ensuring that people have the knowledge they need, where they need it, when they need it – the right knowledge, in the right place, at the right time.

Knowledge management is unfortunately a misleading term – knowledge resides in people's heads and managing it is not really possible or desirable. What we can do, and what the ideas behind knowledge management are all about, is to establish an environment in which people are encouraged to create, learn, share, and use knowledge together for the benefit of the organisation, the people who work in it, and the organisation's customers (or in the case of the NHS, patients).

1.2 What is knowledge?

Academics have debated the meaning of "knowledge" since the word was invented, but let's not get into that here. A dictionary definition is "the facts, feelings or experiences known by a person or group of people" (Collins English Dictionary). Knowledge is derived from information but it is richer and more meaningful than information. It includes familiarity, awareness and understanding gained through experience or study, and results from making comparisons, identifying consequences, and making connections. Some experts include wisdom and insight in their definitions of knowledge. In organisational terms, knowledge is generally thought of as being "know how", or "applied action". The last point is an important one. Today's organisations contain a vast amount of knowledge and the NHS is certainly no exception. However, in applying knowledge management principles and practices in our organisation, knowledge is not our end, but the means for further action. What we are trying to do is to use our knowledge to get better at doing what we do, i.e. health care and health care improvement.

1.3 Why do we need knowledge management?

Knowledge management is based on the idea that an organisation's most valuable resource is the knowledge of its people. This is not a new idea – organisations have been managing "human resources" for years. What is new is the focus on knowledge. This focus is being driven by the accelerated rate of change in today's organisations and in society as a whole. Knowledge management recognises that today nearly all jobs involve "knowledge work" and so all staff are "knowledge workers" to some degree or another – meaning that their job depends more on their knowledge than their manual skills. This means that creating, sharing and using knowledge are among the most important activities of nearly every person in every organisation.

It is easy to see the importance of knowledge in the health sector. As clinicians, managers and other practitioners, we all rely on what we know to do our jobs effectively. But....

Do we know everything we need to know or are there gaps in our knowledge? Of course there are. Medical advances are being made all the time so there is always new knowledge to be learned. Government policies are constantly evolving, as are management practices. The current modernisation programme requires us to let go of what we knew and to learn and apply new knowledge. Changing doctor-patient relationships are requiring us to revisit our whole approach to the provision of health care. And of course, every new patient that comes through our door brings a potential new learning opportunity.

Do we share what we know? The NHS is made up of over a million individuals in hundreds of organisations, each of which have their own knowledge. Is the knowledge of individuals available to the whole organisation? Is the knowledge of organisations available to the whole NHS? Not at present. How many times have we lost valuable knowledge and expertise when a staff member moves on? How many times have we “reinvented the wheel” when we could have learned from someone else’s experience? How many times have patients suffered as a result of the “postcode lottery”?

Do we use what we know to best effect? Not always. In the NHS Plan, the NHS was described as “a 1940s infrastructure operating in the 21st century”. Clearly our knowledge has not always been applied to best effect, and we have fallen behind the times. How many times have we had an idea about how a process or an activity could be improved, but felt we lacked the time or resources to do anything about it? How many times have we had an idea that might help our colleagues, but we keep quiet because our colleagues might not appreciate us “telling them how to do their job”? How many times have we implemented a new initiative, only to find we reverted back to the “old way” a few months later? Perhaps we have had insights about how our patients’ needs could be better met, but there was no forum for us to share and explore those insights so we just forgot about it.

These are just a few examples.

Almost everything we do in the NHS is based on our knowledge. If we do not constantly update and renew our knowledge, share our knowledge, and then use that knowledge to do things differently and better, then our people, our organisations, our patients and the general public will ultimately suffer. We know this because it has already happened. As The NHS Plan (2000) affirms, in spite of our many achievements, the NHS has failed to keep pace with changes in our society. What can transform that, along with the current investment and modernisation programme, is harnessing the vast collective knowledge of the people working in the NHS, and using it to best effect. That is why we need knowledge management.

1.4 What does knowledge management involve?

Knowledge management is essentially about facilitating the processes by which knowledge is created, shared and used in organisations. It is not about setting up a new department or getting in a new computer system. It is about making small changes to the way everyone in the organisation works. There are many ways of looking at knowledge management and different organisations will take different approaches. Generally speaking, creating a knowledge environment usually requires changing organisational values and culture, changing people’s behaviours and work patterns, and providing people with easy access to each other and to relevant information resources.

In terms of how that is done, the processes of knowledge management are many and varied. As knowledge management is a relatively new concept, organisations are still finding their way and so there is no single agreed way forward or best practice. This is a time of much trial and error. Similarly, to simply copy the practices of another organisation would probably not work because each organisation faces a different set of knowledge management problems and challenges. Knowledge management is essentially about people – how they create, share and use knowledge, and so no knowledge management tool will work if it is not applied in a manner that is sensitive to the ways people think and behave.

That being said, there are of course a whole raft of options in terms of tools and techniques, many of which are not new. Many of the processes that currently fall under the banner of knowledge management have been around for a long time, but as part of functions such as training, human resources, internal communications, information technology, librarianship, records management and marketing to name a few. And some of those processes can be very simple, such as:

- > providing induction packs full of “know how” to new staff;
- > conducting exit interviews when staff leave so that their knowledge is not lost to the organisation;
- > creating databases of all publications produced by an organisation so that staff can access them from their desk;

- > providing ongoing learning so that people can constantly update their knowledge;
- > encouraging people with a common interest to network with each other;
- > creating electronic filing systems that can be searched in a number of ways, making the information much easier to find;
- > redesigning offices to be open plan so that staff and managers are more visible and talk to each other more;
- > putting staff directories online so that people can easily find out who does what and where they are;
- > creating intranets so that staff can access all kinds of organisational information and knowledge that might otherwise take a great deal of time and energy to find.

1.5 Some “textbook” definitions of knowledge management

Here are a few definitions:

- > “Clinical knowledge management means enhancing the identification, dissemination, awareness and application of the results of research relevant to clinical practice in health and social care.”
Jeremy Wyatt
- > “The creation and subsequent management of an environment, which encourages knowledge to be created, shared, learnt, enhanced, organised and utilized for the benefit of the organisation and its customers.”
Abell & Oxbrow, tfpl Ltd, 2001
- > “Knowledge management is a process that emphasises generating, capturing and sharing information know how and integrating these into business practices and decision making for greater organisational benefit.”
Maggie Haines, NHS Acting Director of KM
- > “The capabilities by which communities within an organisation capture the knowledge that is critical to them, constantly improve it, and make it available in the most effective manner to those people who need it, so that they can exploit it creatively to add value as a normal part of their work.”
BSI’s A Guide to Good Practice in KM
- > “Knowledge is power, which is why people who had it in the past often tried to make a secret of it. In post-capitalism, power comes from transmitting information to make it productive, not from hiding it!”
Peter Drucker
- > “Knowledge management involves efficiently connecting those who know with those who need to know and converting personal knowledge into organisational knowledge.”
Yankee Group
- > “Knowledge management is not about data, but about getting the right information to the right people at the right time for them to impact the bottom line.”
IBM
- > “The capability of an organization to create new knowledge, disseminate it throughout the organization and embody it in products, services and systems.”
Nonaka & Takeuchi, 1995
- > “Knowledge management is a relatively young corporate discipline and a new approach to the identification, harnessing and exploitation of collective organisational information, talents, expertise and know-how.”
Office of thee-Envoy, 2002
- > “Knowledge management is the explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organizing, diffusion, use and exploitation. It requires turning personal knowledge into corporate knowledge that can be widely shared throughout an organization and appropriately applied.”
David J Skyrme, 1997

2 PRINCIPLES AND PROCESSES OF KNOWLEDGE MANAGEMENT

A “rough guide” to some of the main general approaches to knowledge management.

2.1 *Right knowledge, right place, right time*

Some people mistakenly assume that knowledge management is about capturing all the best practices and knowledge that people possess and storing it in a computer system in the hope that one day it will be useful. In fact this is a good example of what knowledge management is not about! Consider this: how often has information or knowledge been pushed at you when you don’t need it – paper, emails, training, another irrelevant meeting? Then later, when you do need it, you vaguely remember seeing something relevant but can’t find it. Some surveys suggest that professional workers spend ten per cent of their time looking for information they know is somewhere. And if what you want is in people’s heads, and they’re not always around, how can you access it when you need it? What if you don’t even know whose head it’s in, or if they’d be willing to share it with you?

In a nutshell, good knowledge management is all about getting the **right knowledge, in the right place, at the right time**.

The right knowledge is the knowledge that you need in order to be able to do your job to the best of your ability, whether that means diagnosing a patient, making a decision, booking a referral, answering a patient’s question, administering a treatment, training a new colleague, interpreting a piece of research, using a computer system, managing a project, dealing with suppliers etc. Information and knowledge can usually be found in a whole variety of places – research papers, reports and manuals, databases etc. Often it will be in people’s heads – yours and other people’s. The right place, however, is the point of action or decision – the meeting, the patient helpline, the hospital bedside, behind the reception desk and so on. The right time is when you (the person or the team doing the work) need it.

2.2 *Types of knowledge: explicit and tacit*

Knowledge in organisations is often classified into two types: explicit and tacit.

- 1 **Explicit knowledge** is knowledge that can be captured and written down in documents or databases. Examples of explicit knowledge include instruction manuals, written procedures, best practices, lessons learned and research findings. Explicit knowledge can be categorised as either structured or unstructured. Documents, databases, and spreadsheets are examples of structured knowledge, because the data or information in them is organised in a particular way for future retrieval. In contrast, e-mails, images, training courses, and audio and video selections are examples of unstructured knowledge because the information they contain is not referenced for retrieval.
- 2 **Tacit knowledge** is the knowledge that people carry in their heads. It is much less concrete than explicit knowledge. It is more of an “unspoken understanding” about something, knowledge that is more difficult to write down in a document or a database. An example might be, knowing how to ride a bicycle – you know how to do it, you can do it again and again, but could you write down instructions for someone to learn to ride a bicycle? Tacit knowledge can be difficult to access, as it is often not known to others. In fact, most people are not aware of the knowledge they themselves possess or of its value to others. Tacit knowledge is considered more valuable because it provides context for people, places, ideas and experiences. It generally requires extensive personal contact and trust to share effectively.

2.3 *Types of knowledge: old and new*

Most knowledge management strategies generally have one (or sometimes both) of two thrusts. The first is to make better use of the knowledge that already exists within the organisation, and the second is to create new knowledge.

Making better use of the knowledge that already exists within an organisation (“old” knowledge) often begins with “knowing what you know”. Very often leading managers comment: “if only we knew what we knew”. Too frequently, people in one part of the organisation reinvent the wheel or fail to solve a problem because the knowledge they need is elsewhere in the organisation but not known or accessible to them. Hence the first knowledge management initiative of many companies is that of finding out what they know, and taking steps to

make that knowledge accessible throughout the organisation. Specific approaches might include conducting a knowledge audit, mapping the organisation's knowledge resources and flows, making tacit knowledge more explicit and putting in place mechanisms to move it more rapidly to where it is needed.

Creating new knowledge can equally be approached in a number of ways such as through training, hiring external resources, bringing different people and their knowledge together to create fresh knowledge and insights, etc. It is also about innovation – making the transition from ideas to action more effective. Many managers mistakenly believe this is about R&D and creativity. In fact there is no shortage of creativity in organisations – not just in R&D but everywhere. The real challenge is not to lose these creative ideas and to allow them to flow where they can be used.

In reality, the distinction between “old” and “new” knowledge is not always that clear. Innovation will often draw on lessons from the past, particularly those that have been forgotten, or those that can be put together in new combinations to achieve new results. Similarly, the application of (old) knowledge almost always involves some adaptation, and so in the process of adaptation, new knowledge is created. At the end of the day, the quality of knowledge does not depend on whether it is “old” or “new” but rather whether it is relevant. Whether it is old or new hardly matters. The question is: does it work in practice?

2.4 Ways with knowledge: collecting and connecting

Knowledge management programmes tend to have both a “collecting” and a “connecting” dimension.

The collecting dimension involves linking people with information. It relates to the capturing and disseminating of explicit knowledge through information and communication technologies aimed at codifying, storing and retrieving content, which in principle is continuously updated through computer networks. Through such collections of content, what is learned is made readily accessible to future users.

Current examples in the NHS include various intranets, the National electronic Library for Health, the CLIP database, The Cochrane Library, and many more. This collecting dimension is often the main emphasis of many European and US knowledge programmes. However it has its limitations. Even where comprehensive collections of materials exist, effective use may still need knowledgeable and skilled interpretation and subsequent alignment with the local context to get effective results, just as reading a newspaper article on brain surgery does not qualify or enable a reader to conduct brain surgery. An organisation that focuses completely on collecting and makes little or no effort at connecting (see below) tends to end up with a repository of static documents.

The connecting dimension involves linking people with people – specifically people who need to know with those who do know, and so enhancing tacit knowledge flow through better human interaction, so that knowledge is diffused around the organisation and not just held in the heads of a few. Connecting is necessary because knowledge is embodied in people, and in the relationships within and between organisations. Information becomes knowledge as it is interpreted in the light of the individual's understandings of the particular context. Examples of connecting initiatives include skills directories and expert directories – searchable online staff directories that give much more detail about who does what and who knows what, collaborative working, communities of practice – networks of people with a common interest, and various “socialisation” activities designed to support knowledge flows. This connecting dimension tends to be the main emphasis in Japanese knowledge programmes. However an organisation that focuses entirely on connecting, with little or no attempt at collecting, can be very inefficient. Such organisations may waste time in “reinventing wheels”.

Most knowledge management programmes aim at an integrated approach to managing knowledge, by combining the benefits of both approaches and achieving a balance between connecting individuals who need to know with those who do know, and collecting what is learned as a result of these connections and making that easily accessible to others. For example, if collected documents are linked to their authors and contain other interactive possibilities, they can become dynamic and hence much more useful.

2.5 Ways with knowledge: people, processes and technology

One popular and widely-used approach is to think of knowledge management in terms of three components, namely people, processes and technology:

- > **People:** Getting an organisation's culture (including values and behaviours) "right" for knowledge management is typically the most important and yet often the most difficult challenge. Knowledge management is first and foremost a people issue. Does the culture of your organisation support ongoing learning and knowledge sharing? Are people motivated and rewarded for creating, sharing and using knowledge? Is there a culture of openness and mutual respect and support? Or is your organisation very hierarchical where "knowledge is power" and so people are reluctant to share? Are people under constant pressure to act, with no time for knowledge-seeking or reflection? Do they feel inspired to innovate and learn from mistakes, or is there a strong "blame and shame" culture?
- > **Processes:** In order to improve knowledge sharing, organisations often need to make changes to the way their internal processes are structured, and sometimes even the organisational structure itself. For example, if an organisation is structured in such a way that different parts of it are competing for resources, then this will most likely be a barrier to knowledge sharing. Looking at the many aspects of "how things are done around here" in your organisation, which processes constitute either barriers to, or enablers of, knowledge management? How can these processes be adapted, or what new processes can be introduced, to support people in creating, sharing and using knowledge?
- > **Technology:** A common misconception is that knowledge management is mainly about technology – getting an intranet, linking people by e-mail, compiling information databases etc. Technology is often a crucial enabler of knowledge management – it can help connect people with information, and people with each other, but it is not the solution. And it is vital that any technology used "fits" the organisation's people and processes – otherwise it will simply not be used.

These three components are often compared to the legs of a three-legged stool – if one is missing, then the stool will collapse. However, one leg is viewed as being more important than the others – people. An organisation's primary focus should be on developing a knowledge-friendly culture and knowledge-friendly behaviours among its people, which should be supported by the appropriate processes, and which may be enabled through technology.

3 GENERAL CONCEPTS

3.1 *A brief history of knowledge management*

Knowledge management as a conscious discipline would appear to be somewhere between five and fifteen years old. It evolved from the thinking of academics and pioneers such as Peter Drucker in the 1970s, Karl-Erik Sveiby in the late 1980s, and Nonaka and Takeuchi in the 1990s. During that time, economic, social and technological changes were transforming the way that companies worked. Globalisation emerged and brought new opportunities and increased competition. Companies responded by downsizing, merging, acquiring, reengineering and outsourcing. Many streamlined their workforce and boosted their productivity and their profits by using advances in computer and network technology. However their successes in doing so came with a price. Many lost company knowledge as they grew smaller. And many lost company knowledge as they grew bigger – they no longer “knew what they knew”.

By the early 1990s a growing body of academics and consultants were talking about knowledge management as “the” new business practice, and it began to appear in more and more business journals and on conference agendas. By the mid-1990s, it became widely acknowledged that the competitive advantage of some of the world’s leading companies was being carved out from those companies’ knowledge assets such as competencies, customer relationships and innovations. Managing knowledge therefore suddenly became a mainstream business objective as other companies sought to follow the market leaders.

Many of these companies took the approach of implementing “knowledge management solutions”, focusing almost entirely on knowledge management technologies. However they met with limited success, and so questions began to be asked about whether knowledge management wasn’t simply another fad that looked great on paper, but in reality did not deliver. In fact for a while, it looked as if knowledge management was destined to be confined to the “management fad graveyard”. However on closer inspection, companies realised that it wasn’t the concept of knowledge management that was the problem as such, but rather the way that they had gone about approaching it. Reasons for their limited success included:

- > The focus was on the technology rather than the business and its people.
- > There was too much hype – with consultants and technology vendors cashing in on the latest management fad.
- > Companies spent too much money (usually on “sexy” technologies) with little or no return on their investments.
- > Most knowledge management literature was very conceptual and lacking in practical advice, which led to frustration at the inability to translate the theory into practice – “it all makes so much sense but why isn’t it working?”
- > Knowledge management was not tied into business processes and ways of working.
- > It was seen as another laborious overhead activity or yet another new initiative.
- > A lack of incentives – employees quite rightly asked the “what’s in it for me?” question.
- > There wasn’t sufficient senior executive level buy in.

Fortunately companies are now recognising these early mistakes and are beginning to take a different approach to knowledge management – one in which the emphasis is more on people, behaviours and ways of working, than on technology. Of course there are still some sceptics who believe that knowledge management is just a fad. But according to a number of company surveys, it would seem that they are in a minority. A more popular view is that knowledge management may not remain as a distinct discipline, but rather will become embedded in the way organisations work. This can be compared to Total Quality Management which was the “in thing” in the 1980s; nobody talks about “TQM” any more, but many of its principles and practices are an integral part of how most organisations operate. It looks likely that this could also be the future for knowledge management.

3.2 The “knowledge economy”

“As we enter the 21st century we are moving into a new phase of economic and social development, which can usefully be referred to as a “knowledge economy”, in which knowledge will be a key determining factor in organizational and economic success or failure. The most effective organizations in the knowledge economy will be those which recognize and best harness the crucial role that knowledge plays both inside and outside their organisation.”

From: **Knowledge Enhanced Government: A strategy for the UK Office of the e-Envoy**, July 2002

The government’s objective is to make the UK one of the world’s leading knowledge economies.

3.3 Knowledge management in the public sector

In both the private and public sectors, more and more organisations are beginning to take responsibility for managing knowledge as a means to create value. But what does “value” mean in the context of the public sector? Public sector organisations are not usually seeking a competitive advantage, so why bother with knowledge management? If we go back to our definition of knowledge as “the capacity for effective action” (see the section [What is KM?](#)) then this probably better describes the expectations of government and public services. Every public service involves a wide range of relationships between policy makers, service providers, local authorities, the general public and various other interested parties such as voluntary and community sector organisations, the private sector etc. If we think about the many interactions within and between these groups, and their impact on policy and service provision, then we begin to see the scope for knowledge management in the public sector. How does one of these various parties share an experience and introduce one policy driven initiative with that of another for the benefit of all concerned? How can everyone involved have an awareness of the “bigger picture” as well as their own individual standpoints? How can all parties be better prepared to act?

In recent years there has been a number of government policies aimed at equipping the public sector to function more effectively in an information society. These have included:

- our Information Age (HMSO, 1998) – the de facto UK national information policy
- open for learning, open for business (National Grid for Learning, 1998) – establishing a commitment to a national grid for learning
- modernising government (HMSO, 1999) – committed government to modernising public services so that all would be capable of being delivered by computer by 2005
- e-government (Cabinet Office, 2000) – a strategic framework for public services in the information age

Building on this, subsequent developments have focused on making better use of the tacit knowledge within, and improving knowledge transfer across, the public sector.

The Office of the e-Envoy’s UK Annual Report 2000 announced the development of a cross-government knowledge management system, focusing on the creation of a Knowledge Network – “a unified cross-government communications infrastructure to enable officials in all government departments and associated bodies ... to communicate electronically with each other and share common, secure access to databases, discussion forums, web-based community sites and “knowledge pools”.”

From there, a new programme of modernisation led by the Office of the e-Envoy known as Knowledge Enhanced Government (KEG) was launched. The KEG team is working with the major central government departments in ensuring that there are departmental teams and processes in place to support participation in KEG. The Department of Health is already a key player in these processes.

As part of KEG, the Office of the e-Envoy has recently considered the development of a knowledge management policy framework to provide a holistic view of knowledge management and recommendations for activity. Early proposals have suggested that this framework could be based around ten key areas of activity:

- 1 knowledge capture – policies and processes for identifying and capturing explicit and tacit knowledge.
- 2 knowledge transfer – policies and processes for transferring knowledge among and between its various sources and forms.
- 3 knowledge retention – policies and processes for retaining organisational knowledge, especially during periods of organisational change.
- 4 content management – policies and processes for efficiently managing the organisational knowledge base.
- 5 knowledge capital – policies and processes for measuring and developing the government's human and social capital.
- 6 enabling communities – policies and processes for promoting and supporting knowledge-based community working across and between departments.
- 7 supporting a knowledge culture – policies and processes to create the necessary cultural changes to embed the knowledge management ethos into working practices.
- 8 knowledge partnerships – policies and processes for promoting and supporting knowledge partnerships between central government and key partners such as local government, departmental agencies, non-departmental public bodies, voluntary and community organizations etc.
- 9 supporting key business activities – policies and processes to support key business activities in government such as project management, the legislative process, delivery monitoring etc.
- 10 knowledge benchmarking – policies and processes for benchmarking current knowledge management capabilities and practices against UK and international best practice, and for improving performance.

For more information about Knowledge Enhanced Government and related initiatives, see the Office of the e-Envoy website at <http://archive.cabinetoffice.gov.uk/e-envoy/index-content.htm>.

4 GETTING STARTED

With such a wide range of definitions, philosophies, methodologies, tools and techniques, approaching knowledge management can initially seem quite daunting. In starting out, many practitioners tend to offer the following types of advice:

4.1.1 Review your options

It is useful to gain a broad understanding of the variety of approaches to knowledge management. Not only are there many alternatives, but also some of them differ quite widely from others in their methods. Before selecting your approach or approaches, try to explore the many options open to you.

4.1.2 Don't get too hung up on "the best"

There is no single "right" way to approach knowledge management. Knowledge management methods are as varied as the organisations in which they are implemented. Every organisation is different and so its approach to knowledge management will need to reflect its own particular circumstances. There is no "one size fits all". The "best" approach will be one that works well for your organisation.

4.1.3 Keep it simple – avoid rocket science

There is still quite a lot of confusion about what knowledge management actually is and what it involves. Don't add to that confusion by blinding people with rocket science and textbook definitions. Get clear on what knowledge management means for your organisation. Then make the concepts of knowledge management real for others in your organisation. Use simple definitions and simple language to explore real problems and opportunities. Create a clear, tangible picture of the benefits of knowledge management as they relate to your organisation's specific goals and circumstances.

4.1.4 Learn while doing

Avoid the temptation to wait until you have "mastered" the theory of knowledge management before getting started on the practice. (The theory is constantly evolving, so the chances are you will never master it). One of the best ways to learn is "on the job". You can learn a great deal from what others have done, but you will only learn what does and doesn't work for your organisation when you actually get started and do something.

4.1.5 Celebrate what you're already doing

Start from where you are, with what you have. In most organisations there will already be examples of good knowledge management practice – except they won't usually be thought of as knowledge management. Look around your organisation for current activities that might already be related to knowledge management – not necessarily big projects or initiatives, but simple, day-to-day ways of doing things. Look for teams or groups that are currently sharing knowledge, and make connections with these people. Find out how it is benefiting those people and the organisation as a whole. Celebrate and build on these examples of good practice.

4.1.6 Look at your organisation's goals

Given that knowledge management is not an end in itself, but rather a means to achieving organisational goals, then this is a logical place to start. Look at both the long-term goals and short to medium-term objectives of your organisation: what are they? How might knowledge management help you to achieve them? Then look at what people – teams and individuals – do in your organisation. What are the services they provide? What activities and processes do they perform in order to provide those services? How might they be done better for the benefit of individual staff, the organisation as a whole, and your patients? What knowledge do people need in order to do their jobs? What knowledge might they need in order to do them better? How can you acquire, create, use and share that knowledge to bring that about? In what ways are you already doing so? How might you do it better?

4.1.7 Look for needs, problems and pains

Another good place to start is with what some managers call “needs, problems and pains”. These are the things that are not working well in your organisation: things that are getting in the way of people doing a good job, things that irritate people and make their lives difficult, things that hamper the quality of your service to patients. Talk to people and start to build up a list of some of the major needs, problems and pains in your organisation. From there, you can select one or several of these with which to start, and look at how you might resolve it using knowledge management principles and practices. A great advantage of this approach is that it can allow you to achieve “quick wins”. These are problems that are generally fairly simple and quick to resolve, but their resolution has a big impact and the results are clearly visible. Quick wins can be very useful in demonstrating the potential benefits of knowledge management to both managers and staff – there is nothing like real results to win people over.

4.1.8 Start small

Attempting to launch an organisation-wide knowledge management programme without building the evidence first is unfortunately a common mistake, but one to be avoided. Some organisations prefer to “dip their toe in the water” with one or two initiatives before considering a formal knowledge management strategy; others choose not to create a formal strategy at all, choosing instead to take a more informal or incremental approach. Either way, whether you choose to create a formal knowledge management strategy or not, a large-scale, high-cost, “big bang” roll-out is not recommended. Knowledge management is more an iterative process of continuous development. Hence, it is far better to gradually introduce a series of practical, manageable changes. Then, as interest develops, you can look to expand your initiatives.

4.1.9 Don’t take off without a pilot

When looking to implement any major new initiative, conducting a pilot is essential. A pilot involves “test driving” the initiative on a relatively small scale in order to learn what works and what doesn’t, make any necessary changes accordingly, and gather clear, demonstrable evidence about the benefits, before rolling out the initiative on a larger scale. This means that when you come to roll it out, you have already made most of your mistakes, and you have something that has been proven to work well in practice. In terms of securing resources and support, this is a whole different proposition to having an idea in theory.

4.1.10 Remember the “big three”: people, processes, technology

In implementing knowledge management tools and techniques, never forget the importance of creating the right kind of environment. Your organisation’s people, processes and technology will at all times be acting as either enablers of, or barriers to, the effective use of your knowledge management tools. You need to identify the barriers and remove them, and build on the enablers. If you have already tried to implement something and it hasn’t worked, this is where you need to look. If you are about to implement something, look before you leap.

4.1.11 The ultimate aim: institutionalisation

Granted, you are just starting out with knowledge management. This is the beginning of the road. However it is worth keeping one eye on the horizon further down that road. It is useful to bear in mind that success in knowledge management does not involve building up a big new department or a whole network of people with “knowledge” in their job title. You may need to do these things to some degree in the medium-term. However the ultimate aim is for knowledge management to be fully “institutionalised”. Or in other words, so embedded in the way your organisation does things, so intrinsic in people’s day-to-day ways of working, that nobody even talks about knowledge management any more – they just do it. So if you are a knowledge manager, you will know that you have fully succeeded when you have worked yourself out of a job!

4.2 KM toolbox – inventory of tools and techniques

The following “toolbox” presents some of the most common tools and techniques currently used in knowledge management programmes. The aim is to give an introduction, to present an overview of what is involved, and to provide some pointers to further resources.

- 1 [After Action Reviews \(AARs\)](#)
A tool pioneered by the US army and now widely used in a range of organisations to capture lessons learned both during and after an activity or project.
- 2 [Communities of Practice](#)
Widely regarded as “the killer KM application”, communities of practice link people together to develop and share knowledge around specific themes, and are already being established in the NHS.
- 3 [Conducting a knowledge audit](#)
A systematic process to identify an organisation’s knowledge needs, resources and flows, as a basis for understanding where and how better knowledge management can add value.
- 4 [Developing a knowledge management strategy](#)
Approaches to developing a formal knowledge management plan that is closely aligned with an organisation’s overall strategy and goals.
- 5 [Exit interviews](#)
A tool used to capture the knowledge of departing employees.
- 6 [Identifying and sharing best practices](#)
Approaches to capturing best practices discovered in one part of the organisation and sharing them for the benefit of all.
- 7 [Knowledge centres](#)
Similar to libraries but with a broader remit to include connecting people with each other as well as with information in documents and databases.
- 8 [Knowledge harvesting](#)
A tool used to capture the knowledge of “experts” and make it available to others.
- 9 [Peer assists](#)
A tool developed at BP-Amoco used to learn from the experiences of others before embarking on an activity or project.
- 10 [Social network analysis](#)
Mapping relationships between people, groups and organisations to understand how these relationships either facilitate or impede knowledge flows.
- 11 [Storytelling](#)
Using the ancient art of storytelling to share knowledge in a more meaningful and interesting way.
- 12 [White pages](#)
A step-up from the usual staff directory, this is an online resource that allows people to find colleagues with specific knowledge and expertise.

4.3 After Action Reviews

4.3.1 What are after action reviews?

An after action review (AAR) is a discussion of a project or an activity that enables the individuals involved to learn for themselves what happens, why it happened, what went well, what needs improvement and what lessons can be learned from the experience. The spirit of an AAR is one of openness and learning – it is not about problem fixing or allocating blame. Lessons learned are not only tacitly shared on the spot by the individuals involved, but can be explicitly documented and shared with a wider audience.

After action reviews were originally developed and are extensively used by the US Army.

4.3.2 What are the benefits?

What makes after action reviews so powerful is that they can be applied across a wide spectrum of activities, from two individuals conducting a five minute AAR at the end of a short meeting to a day-long AAR held by a project team at the end of a large project. Activities suitable for AARs simply need to have a beginning and an end, an identifiable purpose and some basis on which performance can be assessed. Other than that, there are few limits.

Some examples of when to use an AAR are: when you have introduced a new set of procedures or ways of working; after a busy winter season in which capacity was stretched; following the introduction of a new computer system; after a major training activity; after a shift handover; following a piece of research or a clinical trial; after performing surgery; etc.

AARs are excellent for making tacit knowledge explicit during the life of a project or activity and thus allowing you to capture it. Learning can be captured before a team disbands, or before people forget what happened and move on to something else. Despite the name (“after action”), they do not have to be performed at the end of a project or activity. Rather, they can be performed after each identifiable event within a project or major activity, thus becoming a live learning process in which lessons learned can be immediately applied. In fact this is where AARs can add the greatest value.

AARs provide insights into exactly what contributes to the strengths and weaknesses of a project or activity, including the performance of each individual involved, of the project leader, the team as a whole, and the various processes involved.

AARs are also a useful tool for developing your employees, which they do by providing constructive, directly actionable feedback in a non-threatening way because they are not linked to employee assessment. Similarly, they give people an opportunity to share their views and ideas and to be heard.

4.3.3 How do I go about it?

AARs can be grouped into three types: formal, informal and personal. Although the fundamental approach involved in each is essentially the same, there is some variation in how they are conducted.

Formal AARs tend to be conducted at the end of a major project or event (learning after doing). They require some preparation and planning, but are not difficult as they take the form of a simple meeting. This meeting may take place over a couple of hours or a couple of days, depending on the scale of the project. Steps and tips for successful formal AARs include:

1 Call the meeting as soon as possible and invite the right people

AARs should be conducted as soon as possible after the event. The reasons are simple – memories are fresh, participants are available and where appropriate, learning can be applied immediately. As well as the project manager and the key members of the project, it may be useful to invite the project client or sponsor and also members of any project teams who are about to embark on a similar project. However, be aware that the presence of external people may inhibit some team members.

2 Create the right climate

The ideal climate for an AAR is one of trust, openness and commitment to learning. AARs are learning events, not critiques, and so should not be treated as performance evaluation. There are no hierarchies in AARs – everyone is regarded as an equal participant and junior members of the team should feel free to comment on the actions of senior members. Make it clear that the purpose of the meeting is to help future projects run more smoothly by identifying the learning points from this project.

3 Appoint a facilitator

Ideally an AAR should be facilitated. (Certainly a formal AAR should be facilitated but informal AARs and personal AARs need not be so). The main purposes of the facilitator are to help the team to learn by drawing out answers, insights and previously unspoken issues; to ensure that everyone has an opportunity to contribute; and to help create the right climate and ensure that blame is not brought in. The facilitator should be someone who was not closely involved in the project, so that they can remain objective.

4 Revisit the objectives and deliverables of the project

Ask “what did we set out to do?” and “what did we actually achieve?”. You might like to revisit the original project plan at this stage. You might also decide to construct a flow chart of what happened, identifying tasks, deliverables and decision points. This can help you to see which parts of the project were particularly effective or ineffective.

5 Ask “what went well?”. Find out why, and share learning advice for the future

It is always a good idea to start with the positive points. Here you are looking to build on best practice as well as learning from mistakes. For each point that is made about what went well, keep asking a “why?” question. This will allow you to get to the root of the reason. Then press participants for specific, repeatable advice that others could apply in similar situations.

6 Ask “what could have gone better?”. Find out what the problems were, and share learning advice for the future

Notice that you are not simply asking “what went wrong?” but rather “what could have gone better?”. This way you can learn not only from mistakes, but also from any aspects of the project that got in the way of delivering even more. Hence the focus is not on failure, but on improvement. Even if no mistakes are made as such there is almost always scope for improvement. Again, for each point that is made, keep asking a “why?” question to get to the root of the reason. Then again, press participants for specific, repeatable advice that others could apply in similar situations: what would we do differently next time?

7 Ensure that everyone feels fully heard before leaving the meeting

It is important that participants do not leave the meeting feeling that they have not been heard or that things have been left unsaid. A useful technique here is to ask them for a numerical rating of the project: “looking back, how satisfied are you with the project: marks out of ten?”. People who have said the project was fine will often still score it an eight, which enables you to then ask “what would have made it a ten for you?”.

8 Recording the AAR

It is important to have a clear and interesting account of the AAR and its learning points, both as a reminder to those involved and in order to effectively share that learning with others. You should aim to include things like: lessons and guidelines for the future; some background information about the project to help put these guidelines into a meaningful context; the names of the people involved for future reference; and any key documents such as project plans or reports. Bear in mind who will be using your account and ask yourself if you were to be the next project leader, would this account and the lessons in it be of benefit to you?

9 Sharing the learning

As well as distributing your account of the AAR to the project team, you need to consider who else could benefit from it. For example, you may be aware of another team that is about to embark on a similar project. You also need to make your learning more widely available so that people working on similar projects in the future might also benefit; your document therefore needs to be stored somewhere it can be easily found and accessed by those it could help. This may be in a library, or in some kind of knowledge database or on an intranet.

Informal AARs tend to be conducted after a much smaller event such as a meeting or a presentation (learning after doing), or a following a specific event during a wider project or activity (learning while doing). They require much less preparation and planning and can often be done on the spur of the moment, as the format is simple and quick – a “pencil and paper” or flip chart exercise. In an open and honest meeting, usually no longer than half an hour, each participant in the event answers four simple questions:

- > What was supposed to happen?
- > What actually happened?
- > Why were there differences?
- > What did we learn?

Personal AARs are a simple matter of personal reflection. For example, take a few minutes to reflect on something you did yesterday such as a patient consultation, dealing with a complaint or making a specific telephone call. Ask yourself the four AAR questions above. What does that tell you about what you could do differently tomorrow?

4.3.4 Are there any other points I should be aware of?

- > It is worth repeating is that AARs are learning events, not critiques. It is therefore vital that they are not treated as performance evaluation. The quality of an AAR depends on the willingness of participants to be open; this is unlikely to happen if they fear they are going to be assessed or blamed.
- > Studies on the learning process show that the less time that elapses between discussing a lesson and applying it at work, the more effective the application. This would suggest that AARs are most valuable when used to “learn while doing”.

4.3.5 More information

Books

Chapter 10: Networking and communities of practice

In: Learning to fly: practical lessons from one of the world’s leading knowledge companies
Collison C, Parcell G. Oxford: Capstone, 2001

Web-sites

[Post-mortem to living practice: After Action Review](#)

[After Action Reviews: 3 Step Process](#)

[Powerpoint presentation on After Action Reviews](#)

[AAR Case Studies](#)

[Step-by-step guide to writing AARs](#)

[U.S. Army Corps of Engineers guide to After Action Reviews](#)

[David Gurteen’s Introduction to After Action Reviews](#)

4.4 Communities of Practice

4.4.1 What are communities of practice?

A community of practice (CoP) is a network of people who share a common interest in a specific area of knowledge or competence and are willing to work and learn together over a period of time to develop and share that knowledge.

[Etienne Wenger](#) is credited with coining the term “community of practice” and he defines them as “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise by interacting on an ongoing basis.” He also believes that learning is a social activity and that people learn best in groups.

Communities can vary quite widely in their characteristics. Some exist for years while others form around a specific purpose and disband once that purpose has been achieved. Members may be very similar e.g. consultant gynaecologists, or they may be multi-disciplinary, such as is often the case in communities that are formed around addressing a specific challenge. Some may be small and localised while others will be geographically dispersed “virtual communities” that communicate primarily by telephone, e-mail, online discussion groups and video conferencing, etc.

Communities of practice differ from the usual notion of a team or work groups in a number of fundamental ways:

- > **Voluntary membership**
Whereas teams and work groups are formed by management, membership of a community of practice is voluntary;
- > **Specific focus**
Teams and work groups are formed to focus on a specific objective or activity, while communities of practice are not necessarily; they may have some stated goals, but they are more general and fluid;
- > **No expectation of tangible results**
Teams and work groups are required to deliver tangible results, whereas communities of practice are not necessarily;
- > **Existence defined by group members**
Teams and work groups are disbanded or reorganised once they have achieved their goals, while communities of practice last as long as their members want them to last.

Communities of practice exist in some form in every organisation – whether they have been deliberately created and labelled as such or not. The challenge for knowledge managers is to support them in such a way that they make a positive contribution to creating and sharing organisational knowledge.

Communities of practice are already being established in the NHS, based around the National Library for Health (NLH).

4.4.2 What are the benefits?

In her book “The Complete Idiot’s Guide to Knowledge Management” Melissie Clemmons Rumizen calls communities of practice “the killer knowledge management application”. Communities of practice:

- > provide a valuable vehicle for developing, sharing and managing specialist knowledge;
- > avoid reinventing the wheel;
- > cut across departmental boundaries and formal reporting lines;
- > can be more flexible than traditional reporting units;
- > generate new knowledge in response to problems and opportunities;
- > provide early warning of potential opportunities and threats;
- > can be vehicle for cultural change (creating a knowledge sharing culture);
- > are largely self-organising.

As well as the organisational benefits, communities of practice also provide benefits for individual community members, including:

- > having access to expert help to expand horizons, gain knowledge and seek help in addressing work challenges;
- > members often feel more conscious of, and confident in, their own personal knowledge;
- > provides a non-threatening forum to explore and test ideas or validate courses of action;
- > can foster a greater sense of professional commitment and enhance members' professional reputation.

4.4.3 How do I go about it?

There is a wide range of approaches to creating and developing communities of practice, and a wide range of resources full of guidelines and pointers. As a starting point, these are a few key areas for consideration:

Getting started

Communities of practice are organic and self-organising. Ideally they should emerge naturally. Organisations that have tried to create communities "from the top down" have often failed. Communities can however, be "seeded". Any area or function of your organisation where knowledge is not evenly distributed is a potential target for a community of practice. However, the impetus for a new community usually comes from the recognition of a special need or problem. From there, next steps will revolve around:

1 **Defining the scope**

What is the domain of knowledge? At the heart of every community is a domain of knowledge; that domain can be either based around a professional discipline or on some specific problems or opportunities;

2 **Finding participants**

Who can make a major contribution to this community? Who are the subject experts, and possible co-ordinators, facilitators, and librarians and/or knowledge managers? Will membership be open or by invitation only?

3 **Identifying common needs and interests**

What are the core issues within the domain of knowledge? What are members interested in and passionate about? How do they hope to benefit from membership of the community?

4 **Clarifying the purpose and terms of reference**

What are the specific needs or problems that need to be addressed? What is the community setting out to achieve? How will the community benefit the organisation? What are its values and ways of working? How will it be structured, organised and resourced?

It can often help to launch a community with a meeting or workshop so that members can meet each other and begin to develop relationships, and also spend some time together exploring and agreeing their purpose, terms of reference and ways of working.

Developing and sustaining

Once the initial enthusiasm of the set-up phase has passed, communities can easily wane and fade away unless they are actively developed and sustained.

1 **Maintaining members' interest and involvement**

The ongoing success of a community depends on members' continued interest and involvement. A good co-ordinator will be constantly seeking to maintain that using a variety of methods. For example:

- ➔ ensuring that members of virtual communities meet face to face at least once a year to keep personal relationships alive;
- ➔ allowing plenty of time for socialising at gatherings;
- ➔ ensuring that the wider organisation supports members in taking time to participate; motivating and rewarding people for their contribution;

- introducing new and challenging perspectives in the subject area from time to time, either from within the community or from external experts.
- 2 **Growing the community**
In the life of any community, members will come and go, and there will usually be a need for ongoing recruitment – both to replace lost members and to “keep things fresh”. Similarly, roles and responsibilities will often be rotated between members over time. The ongoing success of the community will be affected by how well new members are welcomed and integrated into it.
- 3 **Developing the body of knowledge**
At this stage the community will probably be taking a more proactive and formal role in assuming responsibility for the relevant body of knowledge, with typical activities including:
 - creating knowledge maps;
 - organising knowledge resources;
 - identifying and seeking to fill knowledge gaps;
 - Here, the roles of librarians and/or knowledge managers will be particularly important.
- 4 **Moving the agenda forward and adding value**
Communities thrive when they are supported and valued by the organisation. This is a “two-way street” so it is important that a community develops in alignment with overall organisational goals, rather than to its own agenda. This will increase the chances of ongoing support from the organisation, such as:
 - providing resources;
 - recognition and reward of community members and particularly co-ordinators;
 - help in removing barriers to community membership;
 - and involvement of communities in key management decisions and problem-solving

However, at the same time, care is needed not to “over-formalise” or “institutionalise” the community.

Closure

Communities can naturally fade away and this is not always a bad thing. Sometimes a natural ending is reached – a group of people or a practice reach a natural conclusion. Other times a community can break up and in its place, a number of “sub-communities” based around particular specialist subjects emerge. Either way, when a community fades it is important to celebrate its life and achievements, and to ensure that the relevant body of knowledge is captured and/or transferred.

4.4.4 Are there any points I should be aware of?

- > The successful cultivation of communities of practice requires a fine balance between giving them enough support and direction to ensure their value, while at the same time not imposing too much structure and therefore risking losing the informal social relationships that underpin their effectiveness.
- > Successful communities or practice require a simultaneous focus on two key areas:
 - developing the practice;
 - and, developing the community.

Developing the community involves a focus on the social structure – the sum of the social relationships built up within a community. Particular roles that are important and should be explicitly recognised are:

- > **Leader (or coordinator)**
recognised in the organisation at large as the spokesperson for this community; organises and co-ordinates the community's interactions and activities;
- > **Facilitator(s)**
Facilitates the interactions within the community, e.g. in face-to-face meetings, and steers the agenda of online interactions;
- > **Librarian or knowledge manager**
manages the explicit knowledge resources of the community.

You might consider providing training and support for these roles, for example in co-ordination and moderation techniques.

Developing the practice looks at the community's inputs and outputs – the resources that the community uses and develops. These resources consist not only of information and knowledge resources such as documents, databases, a web-site, etc. but also the processes and practices within the community. These include ways of developing and enhancing the knowledge base such as through peer group reviews of emerging best practice, and ways of communicating new knowledge developed within the community to the wider organisation. Many communities are becoming the focal point within their organisations for documenting best practice, identifying valuable external resources, writing case studies, and developing frameworks, techniques and tools for their particular knowledge domain.

4.4.5 Resources and references

Books

Chapter 8: Communities of practice – the killer application

In: The complete idiot's guide to knowledge management
Clemmons Rumizen, M.(2002) Madison, WI: CWL Publishing Enterprises

Chapter 10: Networking and communities of practice

In: Learning to fly: practical lessons from one of the world's leading knowledge companies.
Collison C, Parcell G.(2001) Oxford: Capstone

Cultivating communities of practice

Wenger E. (2002) Massachusetts: Harvard University Press

Articles

[Knowledge is the enemy of disease](#)

Brice, A and Gray, M. CILIP Update, 2003, March

[Working together – communities of practice in family medicine](#)

Endsley, S and Kirkegaard, M and Linares A. Family Practice Management, 2005, January

[A survey of current research on online communities of practice](#)

Johnson, CM. Internet and Higher Education, 2001, 4(1)

[A sense of community: the role of CoPs in knowledge management](#)

Lelic, S. Knowledge Management, 2001, 10 October

[Communities of practice and organizational performance](#)

Lesser, EL and Storck, J. IBM Systems Journal, 2001, 40(4)

Web-sites

[Etienne Wenger and Communities of Practice](#)

Tools

[Getting to 7 – Cultivating Communities of Practice: the 7 Stages of Development](#)

4.5 Conducting a knowledge audit

4.5.1 What is a knowledge audit?

The term “knowledge audit” is in some ways a bit of a misnomer, since the traditional concept of an audit is to check performance against a standard, as in financial auditing. A knowledge audit, however, is a more of a qualitative evaluation. It is essentially a sound investigation into an organisation’s knowledge “health”. A typical audit will look at:

- > What are the organisation’s knowledge needs?
- > What knowledge assets or resources does it have and where are they?
- > What gaps exist in its knowledge?
- > How does knowledge flow around the organisation?
- > What blockages are there to that flow e.g. to what extent do its people, processes and technology currently support or hamper the effective flow of knowledge?

The knowledge audit provides an evidence-based assessment of where the organisation needs to focus its knowledge management efforts. It can reveal the organisation’s knowledge management needs, strengths, weaknesses, opportunities, threats and risks.

4.5.2 What are the benefits?

Benefits of a knowledge audit include:

- > helping the organisation clearly identify what knowledge is needed to support overall organisational goals and individual and team activities.
- > giving tangible evidence of the extent to which knowledge is being effectively managed and indicates where improvements are needed.
- > providing an evidence-based account of the knowledge that exists in an organisation, and how that knowledge moves around in, and is used by, that organisation.
- > presenting a map of what knowledge exists in the organisation, and where it exists, revealing both gaps and duplication.
- > identifying pockets of knowledge that are not currently being used to good advantage and therefore offer untapped potential.
- > providing a map of knowledge and communication flows and networks, revealing both examples of good practice and blockages and barriers to good practice.
- > presenting an inventory of knowledge assets, allowing them to become more visible and therefore more measurable and accountable, and giving a clearer understanding of the contribution of knowledge to organisational performance.
- > supplying vital information for the development of effective knowledge management programmes and initiatives that are directly relevant to the organisation’s specific knowledge needs and current situation.

Some examples of situations in which a knowledge audit can be beneficial include:

- > you are about to embark on creating a knowledge management strategy and so need to establish exactly “where you are now”
- > people are having difficulty in finding the information and knowledge they need to make key decisions
- > useful sources of information and knowledge are frequently stumbled across by accident
- > there is duplication of information and knowledge gathering activities across different departments or teams, and hence duplication of costs

- > questions are being raised about the value of knowledge management systems, initiatives or investments
- > when findings from research and development are not making their way into practice quickly enough.

4.5.3 How do I go about it?

There are a wide variety of approaches to conducting a knowledge audit, with varying levels of coverage and detail. As a general rule, most knowledge audits will involve some or all of the following:

Identifying knowledge needs

The first step in most knowledge audits involves getting clear about precisely what knowledge the organisation and the people and teams within it need in order to meet their goals and objectives.

A knowledge audit provides a systematic way of finding this out to some level of detail. Common approaches taken to collating this information include questionnaire-based surveys, interviews and facilitated group discussions, or a combination of these.

In asking people about knowledge needs, it is important to provide a point of focus, as “knowledge” can be seen as being quite conceptual and therefore difficult to articulate. To get around this, and to ensure that you are concentrating on vital knowledge, invite people to think about their goals and objectives, and the core processes, activities and decisions that they perform in the course of their day-to-day work. You might ask them to also consider their main problems and challenges, and how might faster access to better knowledge help them in that regard.

It is always beneficial to begin a knowledge auditing process with identifying knowledge needs. This enables you to then use your understanding of these needs to guide the rest of the auditing process, and therefore be sure that you are focusing on the knowledge that is important to the organisation.

Drawing up a knowledge inventory

A knowledge inventory is a kind of stock-take to identify and locate knowledge assets or resources throughout the organisation. It involves counting and categorising the organisation’s explicit and tacit knowledge. In the case of explicit knowledge, this will include things like:

- > **what knowledge we have** – numbers, types and categories of documents, databases, libraries, intranet websites, links and subscriptions to external resources etc.?
- > **where the knowledge is** – locations in the organisation, and in its various systems?
- > **organisation and access** – how are knowledge resources organised, how easy is it for people to find and access them?
- > **purpose, relevance and “quality”** – why do these resources exist, how relevant and appropriate are they for that purpose, are they of good “quality” e.g. up-to-date, reliable, evidence-based etc.?
- > **usage** – are they actually being used, by whom, how often, what for?

In the case of tacit knowledge, the inventory will focus on people and look at things like:

- > **Who we have** – numbers and categories of people
- > **Where they are** – locations in departments, teams and buildings
- > **What they do** – job levels and types
- > **What they know** – academic and professional qualifications, core knowledge and experience
- > **What they are learning** – on the job training, learning and development.

The knowledge inventory gives you a snapshot of your knowledge assets or resources. By comparing your inventory with your earlier analysis of knowledge needs, you can begin to identify gaps in your organisation’s knowledge as well as areas of unnecessary duplication. This is also explored in greater detail in the next step.

Analysing knowledge flows

While an inventory of knowledge assets shows what knowledge resources your organisation has, an analysis of knowledge flows looks at how that knowledge moves around the organisation – from where it is to where it is

needed. In other words, how do people find the knowledge they need, and how do they share the knowledge they have? Again, the knowledge flow analysis looks at both explicit and tacit knowledge, and at people, processes and systems:

The relative focus in this stage is on people: their attitudes towards, habits and behaviours concerning, and skills in, knowledge sharing and use. This will usually require a combination of questionnaire-based surveys followed up with individual interviews and facilitated group discussions.

In terms of processes, you will need to look at how people go about their daily work activities and how knowledge seeking, sharing and use are (or are not) part of those activities. In most organisations, there will be pockets of good knowledge management practice (though they may not be called knowledge management). You will also need to look at what policies and practices currently affect the flows and usage of information and knowledge, for example are there existing policies on things like information handling, records management, web publishing? Are their other wider policies and practices that, while not directly related to knowledge management, act as enablers or barriers to good knowledge practice?

On the systems side, some assessment is needed of key capabilities that will be used in any recommended actions or solutions. This includes the technical infrastructure: information technology systems, content management, accessibility and ease of use, and current actual levels of use. In short, to what extent do your systems effectively facilitate knowledge flows, and help to connect people with the information and other people they need.

An analysis of knowledge flows will allow you to further identify gaps in your organisation's knowledge and areas of duplication; it will also highlight examples of good practice that can be built on, as well as blockages and barriers to knowledge flows and effective use. It will show where you need to focus attention in your knowledge management initiatives in order to get knowledge moving from where it is to where it is needed.

Creating a knowledge map

A knowledge map is a visual representation of an organisation's knowledge. There are two common approaches to knowledge mapping:

- 1 The first simply maps knowledge resources and assets, showing what knowledge exists in the organisation and where it can be found
- 2 The second also includes knowledge flows, showing how that knowledge moves around the organisation from where it is to where it is needed.

Clearly the second approach provides the most complete picture for the knowledge auditor. However, the first is also useful, and in some organisations is made available to all staff to help people locate the knowledge they need.

4.5.4 Are there any other points I should be aware of?

- > Be clear about your purpose. The knowledge audit is not a quick or simple process, and so the time and effort required needs to be justified by a clear purpose and a set of actions that will be taken as a result of what the audit reveals.
- > When conducting a knowledge audit, bear in mind the widely-accepted statistic that around 80% of an organisation's knowledge is tacit, hence beware of focusing too much time and energy on explicit knowledge and not enough on tacit knowledge.
- > The ease or difficulty that you have in gathering and collating the information you need as part of the audit process is itself a good indicator of the status of your current knowledge management capabilities.
- > If you decide to commission a knowledge audit from external consultants, be aware that the quality and depth of work that comes under the general banner of "knowledge auditing" varies quite. Many vendors use the term "knowledge audit" to describe what is in fact an information audit – which will only look at explicit knowledge. Auditing tacit knowledge is probably where the greater challenge lies, and is hence the area in which expert help is likely to be most valuable.

4.5.5 More information

[Know Map](#) – the Knowledge Management, Auditing and Mapping Magazine, has a range of resources about knowledge auditing available on their site.

4.6 Developing a knowledge management strategy

4.6.1 What is a knowledge management strategy?

A knowledge management strategy is simply a plan that describes how an organisation will manage its knowledge better for the benefit of that organisation and its stakeholders. A good knowledge management strategy is closely aligned with the organisation's overall strategy and objectives.

4.6.2 What are the benefits?

A good, clear knowledge management strategy can help to:

- > increase awareness and understanding of knowledge management in your organisation
- > articulate the business case and identify potential benefits
- > gain senior management commitment
- > attract resources for implementation
- > communicate good knowledge management practice
- > give you a clear, communicable plan about where you are now, where you want to go, and how to plan to get there
- > give you a basis against which to measure your progress

4.6.3 How do I go about it?

There are many ways to approach the development of a knowledge management strategy, as well as many ways of presenting the strategy document itself – there is no “one size fits all”. Larger organisations will probably need a detailed, formal strategy document whereas for a smaller organisation something briefer and less formal might be more appropriate.

The strategy document

As a general guideline, a strategy of any kind tends to include answers to three key questions: where are we now, where do we want to be, and how do we get there?

A relatively brief and informal knowledge management strategy might be structured around these three questions and include things like:

1 Where are we now?

An assessment of the current situation. How does current knowledge management practice (or lack of it) affect the organisation's ability to meet its goals? How does it affect the effectiveness of individuals and teams? To what extent do the organisation's culture, processes and systems currently act as enablers of, or barriers to, good knowledge management practice?

2 Where do we want to be?

An outline of what knowledge management will do for the organisation. How will it help the organisation and the people in it to meet their objectives? What might “good knowledge management practice” look like for this organisation specifically? How will you know when you are there i.e. how will you measure the progress and value of your efforts?

3 How do we get there?

Describing the specific actions that will be taken to get to where you want to be. An action plan covering the three key elements of people, processes and technology: what specific knowledge management tools and processes will you use; how will you motivate people and realign your organisational culture to a “knowledge friendly” one, and how will you develop the supporting technological infrastructure? Also needs to include details of resources required, deliverables, time-scales and responsibilities.

For the larger organisation requiring a more formal and detailed strategy, David Skyrme (<http://www.skyrme.com/>) suggests the following format:

- > **Executive summary** – no more than 1-2 pages.
- > **Background** – giving sufficient context about what initiated this strategy and where this document fits within the wider context.
- > **The case for knowledge management** – starting with your organisation's definition of knowledge management, then explaining the contribution that better knowledge management will make to your organisation, based on core organisational objectives.
- > **Current knowledge management situation** – highlight existing knowledge management activities and experience, outlining the benefits and explaining how these can be built upon; expose barriers to further progress.
- > **Stakeholders' challenges and knowledge needs** – summarise the key issues and knowledge needs of the organisation and relevant stakeholders (e.g. leaders, staff, patients, relevant NHS and government authorities etc.); include an assessment of the existing quality and accessibility of knowledge resources.
- > **Knowledge management vision and strategy overview** – it is often useful to encapsulate an inspiring vision and mission in one or two sentences each; this is followed by some key knowledge management objectives.
- > **Details of strategy** – outline the list of activities and projects to be implemented; it is useful to group these into specific themes or areas of action; typical themes might include: knowledge management tools and techniques; people and cultural aspects; knowledge management skills development; technology; leadership and governance (who will own and drive the strategy); communications (how will the strategy be promoted and rolled out); and measurement (how will performance and progress be measured).
- > **Action plan** – give details of deliverables, time-scales, resources and budgets required for all actions, and reiterating the benefits.
- > **Dependencies** – highlight critical dependencies such as the availability of key personnel, approval of budgets etc.; also spell out the impact of "doing nothing".
- > **Conclusions/Next Steps** – a simple outline of what needs to happen next to move the agenda forward and translate the strategy into action.
- > **Appendices** – typical appendices might include the findings of a knowledge audit, some background material on knowledge management such as definitions, summaries of any existing knowledge management projects or initiatives, etc.

Developing your strategy

In developing a knowledge management strategy, various practitioners offer a range of tips, some of which are outlined here:

1 Start with your organisation's strategy and objectives

The most important factor in guiding a knowledge management strategy is the organisation's overall strategy and goals. Given that the whole purpose of knowledge management is to help the organisation to achieve its goals, the knowledge management strategy should describe precisely that. In order to do that, you need to understand what your organisational goals are, and how you are currently performing against them. Talk to key people throughout your organisation about strategy and goals. Look at what various departments or functions are doing. Discuss plans for the future, and look at factors that influence reaching goals. Get a feel for how sub-optimal knowledge management might be currently limiting the organisation in achieving its goals, and how better knowledge management might help it to achieve them.

Look for gaps that could prevent the organisation from achieving its goals. As you talk to people, be on the look out for the issues that are really causing them problems – their "pains". As well as problems, look for opportunities – not only the chance to fix things, but also the chance to do something new or better. Needs, problems, pains and opportunities give you an opening to use knowledge to make a difference.

As well as being an integral part of the wider organisational strategy, a knowledge management strategy should also be coherent with human resources and information technology strategies.

2 Conduct a knowledge audit

A knowledge audit is an investigation into an organisation's knowledge management "health". A typical audit will look at:

- ➔ What are the organisation's knowledge needs?
- ➔ What knowledge assets or resources does it have and where are they?
- ➔ What gaps exist in its knowledge?
- ➔ How does knowledge flow around the organisation?
- ➔ What blockages are there to that flow?
- ➔ To what extent do its people, processes and technology currently support or hamper the effective knowledge management?

The knowledge audit can reveal the organisation's knowledge management needs, strengths, weaknesses, opportunities, threats and risks. It provides an evidence-based assessment of where the organisation needs to focus its knowledge management efforts.

3 Think about people, processes and technology

When planning your approach to knowledge management, be sure to address each of the three key aspects of people, processes and technology. It is often said that any knowledge management strategy that does not incorporate all three is destined to fail.

4 Think about capturing versus connecting

A key decision in developing your strategy and in selecting knowledge management tools and techniques involves looking at the relative focus on explicit and tacit knowledge – in other words, do you want to focus on connecting people with information, or on connecting people with people? Of course this is not an "either/or" decision and most knowledge management strategies tend to involve a combination of the two; the optimal balance between them will depend on your organisational context.

5 Balance a long-term vision with quick wins

A good strategy will reflect a balance between "quick-wins" and building a sustainable knowledge management capability into the long-term. The advantage of quick wins is that they allow people to see immediate benefits, and therefore they are more likely to give their support.

As well as seeking a number of quick wins, try not to be over-ambitious in the short to medium-term. Avoid long lists of things to do. You cannot change an organisation culture and ingrained work habits overnight. Pick a few core activities where you can make a difference, and prioritise and focus on those. At the same time, do keep your long-term vision in view.

6 What's in it for me?

Gaining support and acceptance for your strategy and ultimately embedding knowledge management into the organisation is about winning "hearts and minds". Think constantly about addressing the "what's in it for me?" question that those whose contribution is needed will invariably ask (and even if they don't ask it in so many words, you can be fairly sure they are thinking it). Always anticipate that question from all of those involved – senior managers, budget-holders, middle managers, staff, patients, those departments and functions whose support you will need such as human resources and information technology. In answering the "what's in it for me?" question, consider the three key levels of "me": myself, my team/department/function, and my organisation as a whole.

7 Build the evidence with pilots

The vast majority of knowledge management practitioners who have learned from direct experience strongly recommend using a pilot project as a "test bed" before launching any new knowledge management initiatives. Pilots have a number of advantages: they allow you to test an approach with a small group of users to find what works and what doesn't, and to refine your approach and "get it right" before rolling out across the wider organisation. This means that when rolling out, you already have evidence to demonstrate that what you are advocating actually works in practice. Similarly, your learning and "mistakes" have taken place in a contained environment, so they will not have a negative impact on the organisation as a whole view of knowledge management. You are

therefore strongly advised to build pilot projects into your knowledge management strategy before seeking to launch any major new initiatives.

4.6.4 Are there any other points I should be aware of?

- > It is important to define precisely what knowledge management means for your organisation. There is no single agreed definition “out there” and given that knowledge management as a concept essentially borrows from a range of other disciplines, there is a great deal of misunderstanding about what is actually involved. People from an information management background might have one viewpoint; those working in information technology will tend to have another, those in human resources another still, etc. A clear and common understanding of what it means in your organisation is therefore essential.
- > Don’t think you have to wait until you have a knowledge management strategy in place before you can “do” knowledge management. More often than not, knowledge management initiatives begin before there is a strategy. In fact many practitioners actively advocate it, believing that a strategy only becomes appropriate once knowledge management initiatives have “had their honeymoon period” and are ready to be formally organised and endorsed.
- > A common mistake is a strategy that is too theoretical and “dry”. Many knowledge management strategies read as if they have come straight from a textbook (and some probably have). Your strategy needs to be “real”, written in the language of your organisation, and relevant to your organisation’s situation. Similarly, be creative in making it interesting and bringing it alive.
- > Again, don’t forget the “what’s in it for me?” question. Clearly demonstrate the benefits of knowledge management throughout your strategy. How will it reduce costs and time, improve performance, increase efficiency, reduce risk, etc.? Use real examples.

4.7 Exit interviews

4.7.1 What are exit interviews?

Traditionally, exit interviews are conducted with employees leaving an organisation. The purpose of the interview is to provide feedback on why employees are leaving, what they liked or didn't like about their employment and what areas of the organisation they feel need improvement. Exit interviews are one of the most widely used methods of gathering employee feedback, along with employee satisfaction surveys.

More recently, the concept of exit interviewing has been revisited and expanded as a knowledge management tool, as a way of capturing knowledge from leavers. Rather than simply capturing human resources information, the interview also aims to capture knowledge about what it takes to do the job.

4.7.2 What are the benefits of exit interviews?

- > vital knowledge is not lost to the organisation when people leave
- > the learning curve of new people joining the organisation is shortened
- > they can be done relatively quickly and inexpensively
- > they can result in the leaver having a more positive view of the organisation

Done correctly, exit interviews can be a win-win situation for both the organisation and the leaver. The organisation gets to retain a portion of the leaver's knowledge and make it available to others, while the leaver gets to articulate their unique contributions to the organisation and to "leave their mark".

4.7.3 How do I go about it?

Traditional exit interviews can be conducted in a variety of ways: face-to-face, over the telephone, using a written questionnaire, or via the Internet using an exit interview management system. In a knowledge-focused exit interview, a face-to-face interview is needed.

You will need to think carefully about the information you would like to gather before the interview and start your preparations early. While the traditional exit interview will tend to collect mainly human resources information, the primary focus of the knowledge-focused interview is on knowledge that would be helpful to the next person who will do the job or to others in the organisation doing similar jobs.

Start planning the handover and exit interview as soon as you know a person is leaving. Identify who in the organisation might benefit from that person's knowledge and what they will need to know. Then work out a plan to capture the leaver's knowledge during the time remaining before they leave. This should include both explicit knowledge (knowledge that is already documented such as in files and e-mails, and knowledge that can be easily documented), and tacit knowledge (knowledge that is less easy to capture and that needs to be explained or demonstrated).

In the case of explicit knowledge, make sure the leaver moves relevant files – both hard copy and electronic – into shared folders or a document library. Ask them to prune and organise these files and to create role and task folders or notes for their successor.

For tacit knowledge, you will need to interview the leaver face-to-face. Prepare for the interview by reviewing the key tasks the person does based on a job description or annual performance plan. You can then use that information as the basis for discussing how they go about those tasks, what knowledge and skills they need, any problems or pitfalls to be aware of etc. Find out about their network of contacts and sources of knowledge. If possible, create an overlap period between the leaver and their successor so that a "live" handover can be done.

When conducting exit interviews, think carefully about who will be the interviewer. Someone from the Human Resources Department conducts traditional exit interviews. However this need not be the case in the knowledge-focused interview. Often a peer or a relevant subject expert will be most appropriate. Over and above the obvious interpersonal and interviewing skills needed, you will need to consider issues of trust and honesty. For example, if an employee has had a difficult relationship with a manager or colleague, that person might not be best placed to conduct the interview. Whoever you select, make sure they are appropriately skilled and trained.

4.7.4 Are there any other points I should be aware of?

- > Traditional exit interviews are usually only appropriate for employees who voluntarily resign or retire rather than those who are fired or made redundant. In the case of the knowledge-focused interview, much will depend on the extent to which the organisation has a culture that encourages knowledge sharing.
- > Be clear about who will use the knowledge gathered and how it will be used, before you begin to gather it; the purpose of the interview is not to gather knowledge per se, but to gather useful knowledge that will actually be used.
- > The less you capture knowledge on a regular basis, the more you need to capture it at exit. However you may decide that you could gain more value from capturing knowledge at more regular intervals. For example, The Post Office uses exit interviews as one part of a series of “cradle-to-grave” interviews to collect knowledge, using a method called 3E. The three Es are Entry, Expert and Exit. Entry interviews allow you to gather knowledge when employees first join the organisation when they have “new eyes” and a fresh perspective, and also to ask them what they would like to know to help them “get up to speed”. Expert interviews are conducted as they develop skills and become experts in a particular role or field. For more information about this wider approach, see knowledge harvesting.

4.7.5 More information

[Leverage exit interviews to collect key knowledge](#)

by Pamela Holloway – Workforce Management.
(Registration required but this is free)

[Tips and Techniques for Effective Exit Interviews](#)

by Pamela Holloway.

[Disappearing knowledge: are exit interviews the wit's end?](#)

by David Skyrme – I3 Update, 2001, November, No 55

4.8 Identifying and sharing best practices

4.8.1 What is identifying and sharing best practices?

The sharing of practices is often one of the first things to be carried out in a knowledge management initiative. In most organisations it is already being done to some degree. This often begins with common practices such as instruction manuals or “how to” guidelines. The next step from there is to identify and share best practices.

A best practice is simply a process or a methodology that represents the most effective way of achieving a specific objective. Some people prefer to use the term “good practice” as in reality it is debatable whether there is a single “best” approach – and, of course, approaches are constantly evolving and being updated. So, another way of defining a best practice is one that has been proven to work well and produce good results, and is therefore recommended as a model.

Much of best practice knowledge is tacit – held in people’s heads and not always easy to document. Therefore, most best practice programmes combine two key elements: explicit knowledge such as a best practices database (connecting people with information), and methods for sharing tacit knowledge such as communities of practice (connecting people with people). These two approaches are complementary. A database can provide enough information for a potential user of the best practice to find it and decide if it is worth pursuing further. However, the best way of sharing best practices is “on the job” and so communities and personal contact with others who have used the best practice is key.

4.8.2 What are the benefits?

The essence of identifying and sharing best practices is to learn from others and to re-use knowledge. Effective sharing of best practices can help organisations to:

- > identify and replace poor practices
- > raise the performance of poor performers closer to that of the best
- > avoid reinventing the wheel
- > minimize re-work caused by use of poor methods
- > save costs through better productivity and efficiency
- > improve services to patients

Best practice programmes are most appropriate in organisations where processes are quite well developed and where a certain amount of knowledge and experience has been accumulated. They are most useful where an organisation has several units or people performing similar tasks but who are widely dispersed and so do not tend to learn from each other through day-to-day contact.

4.8.3 How do I go about it?

In “[Best Practices in Best Practices](#)”, David Skyrme recommends a 6-step approach to identifying and sharing best practices. This is summarised here. The overall approach is aimed at documenting the essential features of a best practice, giving pointers to relevant experts in that practice, deducing general guidelines, diffusing basic knowledge, and using subject matter experts to apply and adapt the practices in a new context.

The key steps are as follows:

1 Identify users’ requirements

This step may sound obvious, but it is not uncommon for someone given the task of capturing best practices to start by designing a database, when clearly this is a case of putting the cart before the horse. Start by considering where you can really add value. Look at what areas of the organisation need attention because of poor performance or difficult challenges. Who can most benefit from better knowledge and understanding of best practices? How will they access and use them?

2 Discover good practices

There are various methods of identifying best practices. One approach is to look at who is producing excellent results and is therefore likely to be using good practices. Having discovered these people, you will then need to discern which parts of their overall approach or methods being used are relevant practices such as subject matter experts, internal auditors, consultants and peers. A range of alternative approaches for identifying best practices can be found within various knowledge management tools. These include communities of practice, after action reviews, knowledge harvesting and exit interviews. Don't necessarily limit your search to only include practices within your organisation; much can be learned from the practices of other organisations in your field, or even organisations in other industries.

3 Document good practices

Best practice descriptions are usually kept in a database in a standard format. A typical template might include the following sections:

- ➔ **Title:** short, descriptive title; this can be accompanied by a short abstract.
- ➔ **Profile:** several short sections outlining processes, function, author, keywords, etc.
- ➔ **Context:** where is this applicable? What problems does it solve?
- ➔ **Resources:** what resources and skills are needed to carry out the best practice?
- ➔ **Description:** what are the processes and steps involved?
- ➔ **Improvement measures:** are there performance measures associated with this practice?
- ➔ **Lessons learned:** what proves difficult? What would the originators of the practice do differently if they were to do it again?
- ➔ **Links to resources:** experts contact details, workbooks, video clips, articles, transcripts of review meetings, tools and techniques used.

The aim at this stage is not to describe the practice in great detail, but to give enough information to allow users of the database to decide whether it matches their needs and where they can find further information. A key consideration is how you can organize and classify the information in your database so that users can readily find what they need.

4 Validate best practices

A practice is only "good" or "best" if there is a demonstrable link between what is practised and the end result. In most organisations, and especially in areas where practices are constantly evolving, rigorous cause-and-effect analysis is impracticable. Hence a degree of subjective judgement is needed as to what constitutes "best". A common approach is to have a panel of reviewers comprising internal and external subject experts and peers, who evaluate a potential best practice against their knowledge of existing practice. It is equally important to ensure that you seek input and feedback from customers (i.e. the ultimate beneficiaries, such as patients) of the best practices.

In the context of the NHS, a further important consideration is that of evidence-based practice. When identifying and validating best practices, it is important to ensure that these are based on a combination of both on-the-job experience and sound research evidence.

5 Disseminate and apply

While a database of best practices is a useful starting point, most organisations find it essential to complement this with face-to-face knowledge sharing about those best practices. This is where the real value is added. Not only does it help the recipient dig beneath the explicit knowledge and gain more in depth insights, but it can also provide a two-benefit in that dialogue between the conveyor of best practice knowledge and the recipient can enrich the knowledge of both.

Common ways of sharing best practice knowledge include: communities of practice; improvement groups or quality circles in which teams within an organisation meet regularly to discuss ways of improving a process; visits to other departments or organisations with good performance; organised learning events such as share fairs or knowledge cafés, that bring people together to share specific knowledge and experience; job secondments or exchanges; etc.

6 Develop a supporting infrastructure

To successfully implement a best practice programme, you need to ensure you have the required infrastructure in place. This infrastructure is often developed as part of a wider knowledge management strategy. Typically, several generic aspects need attention:

- ➔ The people to facilitate and drive the process through its initial stages, until it becomes embedded in the organisation's ways of working (e.g. a best practices team, or a network of best practices co-ordinators).
- ➔ The technical infrastructure for document sharing and databases.
- ➔ The content management infrastructure to ensure that best practices are documented and classified electronically in a way that makes them easy to find.

4.8.4 Are there any other points I should be aware of?

- > Establishing a programme to identify and share best practice is not generally a "quick fix" solution for organisations that are relatively new to knowledge management. Setting up the required processes and infrastructure can be quite a big task, unless you already have some aspects of a knowledge management infrastructure in place.
- > As with an knowledge management initiative, don't forget the importance of motivation and culture. The ease with which good practices emerge and are shared depends on the culture of your organisation. If there is a "not invented here" culture, then good practices will be slow to emerge and spread, as each part of the organisation will defend its own way of doing things rather than learning from, and shearing with, others. Where people are generally encouraged to seek out knowledge and learning, best practices are more likely to emerge and spread.
- > Try not to get too prescriptive about best practices. Rather than putting in rigid rules that say "this is best practice and you should follow it", focus more on encouraging people to develop and share best practices voluntarily.
- > Do not make the mistake of focusing on capturing best practices for the sake of capturing them. Focus on how they can be used to add value. Who are the users? What are their issues? What kind of knowledge do they need to perform better? How might they best assimilate that knowledge?
- > You will need to actively promote your best practice resources. Otherwise you may end up with databases and people that are under-used and not fulfilling their potential.
- > Be sure to demonstrate the benefits and the evidence. Use case examples to show the benefits of sharing best practices, and as far as possible demonstrate how a best practice has contributed to better performance.
- > Remember that best practice is constantly evolving. Therefore feedback mechanisms must be built in so that the value of existing best practices is constantly assessed, and feedback used to create further improvements.
- > Resist the temptation to focus on explicit knowledge – it cannot be emphasised enough that databases of best practices are insufficient. Databases point to examples and people, but it is through people that deep knowledge is transferred.

4.9 Knowledge centres

4.9.1 What are knowledge centres?

In short, an enhanced version of a library. The “enhancement” lies in a wider focus on knowledge as well as on information: a knowledge centre typically provides a focus for collecting, organising and disseminating both knowledge and information. This does not necessarily mean that the knowledge centre will actually perform all of these activities itself. Rather, it will create a framework and provide leadership, co-ordination, guidance and expertise.

4.9.2 What are the benefits?

A knowledge centre can bring core knowledge management responsibilities and activities under a single umbrella rather than leaving it to dispersed individuals and teams. Economies of scale can therefore be achieved through:

- > avoiding duplication of effort and resources;
- > pooling expertise;
- > achieving bulk purchasing discounts;
- > reusing knowledge and information in a variety of contexts.

4.9.3 How do I go about it?

The services that a typical knowledge centre might provide include:

- > Maintaining and developing knowledge repositories e.g. the organisation’s intranet, key information databases and collections.
- > Providing content management services such as cataloguing, indexing and developing taxonomies for electronic knowledge repositories.
- > Coordinating the capturing of knowledge from projects and assignments and incorporating it into knowledge bases such as databases of best practices and/or case studies.
- > Identifying and forming links with sources of important knowledge, both inside and outside the organisation.
- > Providing pointers to people as well as to information – connecting people who need help with people who can provide it, identifying subject experts, maintaining a skills database, connecting people who share similar needs or are working on similar problems, etc.
- > Providing a “one stop shop” for multiple knowledge and information needs.
- > Providing pointers to resources and/or training in information and knowledge skills.

Good knowledge centres will put as much emphasis on connecting people with people – “know-who” – as they do on connecting people with information and document collections. They will be concerned with “active” not “archive” knowledge, so need to be fully up to speed with what is happening in the organisation including current priorities and work in progress – “who is doing what now”.

Knowledge centres may also be created for very specific goals. For example in the 1990s, consulting firm Ernst & Young created three knowledge centres, each with a distinct remit:

- 1 the Centre for Business Innovation would create new knowledge through research,
- 2 the Centre for Business Technology would use existing knowledge to create predefined methods and automated tools, and
- 3 the Centre for Business Knowledge would gather and store the firm’s internal and external knowledge and information resources.

The services of the latter included a library, a call centre for answering consultant requests, and a database of consultant skills. Managers of the centre also had responsibility for identifying and tracking subject matter experts, and for organising knowledge networks around each key domain of knowledge within the business. Another key task of the centre was to develop a knowledge architecture and taxonomy, in order to specify the categories and terms in which the firm needed to gather and store knowledge. Key areas of knowledge were represented by “Power Packs” – structured sets of online resources and materials including answers to frequently encountered issues.

4.9.4 Are there any other points I should be aware of?

Knowledge centres, while similar to libraries, are not the same. A knowledge centre is based on the idea that knowledge resides primarily in people rather than in documents or computer systems. Hence in a knowledge centre, there is a strong emphasis on connecting people with each other, as well as with information.

4.10 Knowledge harvesting

4.10.1 What is knowledge harvesting?

Knowledge harvesting is an approach that allows the tacit knowledge or know-how of experts and top performers in an organisation to be captured and documented. This know-how can then be made available to others in various ways such as through training programmes, manuals, best practices and knowledge management databases. Knowledge in organisations exists in two forms: explicit knowledge, which is easily captured and shared; and tacit knowledge, which is more experiential and intuitive, and so is less easy to articulate. Knowledge harvesting is about trying to make some of the tacit knowledge more explicit. Its aim is to help organisations make better and wider use of their existing knowledge by extracting it from the heads of a few key people and making it available to a much wider range of people.

4.10.2 What are the benefits?

The ultimate goal of knowledge harvesting is to capture an expert's decision-making processes with enough clarity that someone else could repeat the same processes and get the same results.

Knowledge harvesting can be effectively used in a range of situations such as:

- > When an organisation wants to "know what it knows".
- > When knowledge and information are needed for a specific, clearly defined, purpose.
- > To capture the knowledge of employees who are leaving the organisation or department.
- > To gather knowledge to support a process of change or improvement.
- > To kick-start a knowledge management programme by quickly generating a body of expert knowledge about a subject and making it available across the organisation.
- > As an ongoing practice, as part of a wider knowledge management strategy.

The benefits of knowledge harvesting include:

- > The knowledge of a few key individuals is made readily available to others who need it.
- > Individuals can access experts' knowledge when and where they need it, without being dependent on the availability of that expert.
- > Vital knowledge is not lost to the organisation when people leave.
- > The learning curve of new people joining the organisation is shortened.
- > The tangible knowledge assets of the organisation can be increased.
- > Productivity and efficiency can be improved, as people can use existing expertise rather than having to go through their own trial-and-error experiences.
- > It can be done relatively quickly and inexpensively.

4.10.3 How do I go about it?

While there is no set formula for knowledge harvesting, there are some general guidelines that facilitate the process. These can be broken down into a number of steps.

Focus

Decide on what specific knowledge and expertise you want to capture, and be clear about what the benefits will be. It is neither possible nor desirable to capture everything that everyone knows.

You need to focus on the knowledge that is most important to the success of your organisation. Start by looking at your organisation's goals and objectives. What do you need to do better, or continue to do well, in order to achieve those objectives? How does knowledge support you in doing that?

Examples of key knowledge might be:

- > knowledge about, or a relationship with, a particular type of patient or a supplier
- > key operational processes
- > a key system, technology or piece of equipment
- > a specific illness, disease or treatment
- > the organisational culture, the internal infrastructure, “how to get things done around here”

Understand your target audience

It is important to understand who will be using the knowledge that you are capturing before you start to capture it. This will help you ensure you capture the right knowledge at the right level, and make it available in the most appropriate ways. Consider who will be your target audience, how many of them there are, where they are located, what their needs are – what do they need to know about this specific subject; what is their current level of knowledge and experience of it; how will they apply the knowledge; what access to they have to various media such as an intranet; etc.?

Find your experts

Identify the experts – the people who have the knowledge and know-how you are seeking to capture. If you have a staff directory that includes details people’s skills and knowledge then this is a good place to start. Otherwise you might look at key documents on a subject and see who authored them, or ask managers and staff working in the area. Bear in mind that experts are not necessarily the most senior people in the organisation. Once you have found your experts, you can then collate some relevant background information about them including job descriptions, roles and responsibilities, education and training, work experience etc.

Choose your harvesters

An effective harvester (interviewer) is crucial. Much of the success of knowledge harvesting relies on the ability of the interviewer to elicit the right knowledge from experts. Making tacit knowledge explicit can be difficult – people often don’t “know what they know” and so helping people to talk about what they know, and then capturing that effectively, is a key skill. It is generally recommended that you use a trained harvester – whether you hire an external consultant, or develop and train someone in-house. In the latter case, consider people with strong communication, interpersonal and interviewing skills, such as recruiters, researchers, trainers, counsellors or nurses.

Harvest: interview your experts

The best way to capture tacit knowledge is using one-to-one, face-to-face interviews with your experts. The interviews will involve asking them to talk about what they do and to describe specific situations in which they have applied specific know-how. Interviews need to be well prepared in advance, including drafting a topic guide or a list of questions. Examples of questions might include:

- > Describe a time when...?
- > What’s the first thing you do?
- > How do you know to do that?
- > How do you know when to do it?
- > What do you do next? Why?
- > What usually happens?
- > What happens if something else is done?
- > What would happen if...?
- > Who else is involved?
- > What are some common mistakes or misconceptions?
- > What is the most important thing to remember when you’re doing this?
- > Describe how you currently help others learn how to do this?

- > What are the main obstacles that prevent them from achieving the same results as you?
- > What are examples of support materials, documents, procedures, manuals, research evidence, check-lists that are relevant?
- > What would make this process easier to understand?
- > What would make this process easier to achieve?
- > Etc.

In order to effectively capture the responses, you will need either a tape recorder or a second person to transcribe the interview. Some practitioners recommend a process in which the harvester conducts initial interviews with experts, and then presents the results to a group representing the eventual users of that knowledge. Any gaps in what the users need to know, or in their understanding of what has been captured, can then be used to form the basis of a second round of expert interviewing. This process of cycling between experts and eventual users can be invaluable in ensuring a fit between what is needed and what is being captured.

Organise, package and share

Once the knowledge has been gathered it can then be edited, organised and presented (or “packaged”) into a form that meets the needs of its users. This may be a check-list, a manual or a set of guidelines etc. that can then be made available either in hard copy or (ideally, assuming your users have easy access to a computer) in a knowledge database or on the organisation’s intranet. In some cases, the information is loaded into interactive software to provide an online tool to help users through relevant decision-making processes. For example, such a system might provide a variety of multiple-choice questions that guide the user to define a problem and apply the relevant criteria to solve it.

Apply, evaluate and adapt

It is important to ensure that the knowledge you have captured is being accessed and applied and that users are getting value from it. You will also need to consider its value over time: knowledge harvesting can result in relatively static documents that will, at some point, become out-of-date and so they will need to be continually refreshed if they are to retain their value.

4.10.4 Are there any other points I should be aware of?

- > Before embarking on a knowledge harvesting programme, you need to consider whether your organisation’s culture is one that encourages knowledge sharing. Successful knowledge gathering and sharing is unlikely to happen if people feel they would be at a disadvantage by sharing their knowledge. For example, experts may feel that their status or job security depends on keeping their knowledge to themselves. For more information about organisational culture, see [People](#).
- > Before you begin, be sure that you are clear on how you intend to package and make available the knowledge you have harvested and that you have the resources to do so. Otherwise you could end up with a stock of potentially useful knowledge that is going to waste.
- > Not all tacit knowledge can be made explicit. There will always be aspects of know-how and experience that remain tacit. For those aspects, you will need to apply other knowledge management tools. The challenge is therefore to determine how much of the tacit knowledge in your organisation can be harvested and made explicit, and how much is best approached in another way.
- > Some knowledge management practitioners feel that it is a mistake to focus on capturing and documenting tacit knowledge. Their view is that there is greater value in connecting people with each other so that they can share their tacit knowledge through “live” discussion and collaboration, and so they favour knowledge management tools such as communities of practice, storytelling, white pages and expertise directories, etc. In practice, it is wise to look at a combination of approaches, and adapt them to the specific needs and circumstances of your organisation.

4.10.5 More information

KnowledgeHarvesting.org

The website of a US-based knowledge management consulting firm specialising in knowledge harvesting. The site has a useful range of training documents concerning knowledge harvesting.

4.11 Peer assists

4.11.1 What are peer assists?

A peer assist is simply a process where a team of people who are working on a project or activity call a meeting or workshop to seek knowledge and insights from people in other teams. While seeking help from peers is certainly not new, the formal use of this process as a knowledge management tool and the coining of the term “peer assist” were pioneered by British Petroleum (BP).

4.11.2 What are the benefits?

- > Peer assists are part of a process of what BP calls “learning before doing”, in other words gathering knowledge before embarking on a project or piece of work, or when facing a specific problem or challenge within a piece of work. The benefits of peer assists are therefore quickly realised: learning is directly focused on a specific task or problem, and so it can be applied immediately.
- > A peer assist allows the team involved to gain input and insights from people outside the team, and to identify possible new lines of enquiry or approach – in short, reusing existing knowledge and experience rather than having to reinvent the wheel. Peer assists also have wider benefits: they promote sharing of learning between teams, and develop strong networks among people.
- > Peer assists are relatively simple and inexpensive to do: they do not require any special resources or any new, unfamiliar processes.
- > It is worth using a peer assist when a team is facing a challenge, where the knowledge and experience of others will really help, and when the potential benefits outweigh the costs of travel.

4.11.3 How do I go about it?

There is no single right way to hold a peer assist. The following is a method that has worked well for BP.

- 1 **Clarify your purpose**
Peer assists work well when the purpose is clear and you communicate that purpose to participants. Define the specific problem you are seeking help with, and be sure that your aim in calling a peer assist is to learn something (rather than seeking endorsement for a decision you have already made).
 - 2 **Has the problem already been solved?**
Do some research to find out who else has already solved or tackled a similar problem. Also, share your peer assist plans with others, as there may be other teams who are currently tackling a similar problem who could also benefit from participating in the peer assist.
 - 3 **Get a facilitator**
You will need a facilitator from outside the team, to make sure the meeting participants reach their desired outcome. The facilitator also may or may not record the event: be sure to agree on that before the meeting.
 - 4 **Timing is important**
Ensure that you plan a date for the peer assist that is early enough in your project to make use of the input you receive and to do something different on the basis of what you have learned. A frequent mistake is to hold the meeting too close to the decision date to make a real impact. Consider that you might get a different response to the one you expect: will you have time to do anything about it?
- The length of a peer assist depends on the complexity of the problem and tends to be somewhere between half a day and two days long.

5 Select the participants

Once you are clear on your purpose, select participants who have the diversity of knowledge, skills and experiences needed for the peer assist. Six to eight people is a good number. Look “across” the organisation rather than “up” it – hierarchies can hamper the free exchange of knowledge whereas peers tend to be much more open with each other and can challenge without feeling threatened. Avoid the temptation to select “the usual suspects”: if the same experts are selected for peer assists again and again, you may be limiting the number of fresh ideas and perspectives available to you. Similarly, seek to select people who will challenge your ways of thinking and working and perhaps offer a different angle, rather than looking for people who will validate your current approach. You might consider inviting people from outside your organisation.

6 Get clear about the deliverables

Get clear on what you hope to achieve during the peer assist and then plan the time to achieve that. The deliverables should comprise options and insights rather than providing an answer. It is up to the person or team who called the peer assist to then make the relevant decisions, based on what is learned. Provide the participants with any briefing materials in advance so that they have adequate time to prepare.

7 Allow time for socialising

Allow time in your agenda for the teams to get to know one another; this might be a dinner the night before or time for coffee at the start of the day. It is important to build rapport so that the group can work openly together.

8 Define the purpose and set the ground rules

At the start of the meeting, ensure that everyone is clear about the purpose of the peer assist and their roles within it. The role of the host team is to listen in order to understand and learn. The role of the visiting team is to share knowledge and experience to help resolve the challenge without adding to the workload. Agree that where there are areas of contention, you will focus on the activity rather than the individual people involved.

9 Start by sharing information and context

Divide the meeting time roughly into four equal parts. During the first quarter, the host team will present the context, history and their future plans regarding the problem or challenge in question. Keep this part short and sharp – you only want to say enough to get the visiting team started in the right direction. Remember that the purpose of the peer assist is to learn rather than tell.

When communicating the problem or challenge about which you are seeking input, be prepared for it to be redefined as part of the peer assist process. It may be that the problem you have identified is in fact the symptom of a further problem and the peer assist will help you identify the root cause.

10 Encourage the visitors to ask questions and give feedback

In the second quarter, the visitors consider what they have heard, and then begin by discussing what they have heard that has surprised them, and what they expected to hear but haven't. The host team should take a back seat at this stage and simply listen; in some cases they may even opt to leave the room. The visitors then consider what else they need to know to address the problem and where might they find that knowledge. It may be that they want to make some telephone calls and talk to some other people, or request some data or reports. Remember, they are not seeking to solve the problem but to offer some options and insights based on their own knowledge and experience.

11 Analyse what you have heard

The third quarter of the meeting is for the visiting team to then analyse and reflect on what they have learned and to examine options. Again, the home team remains largely in the back seat; it might be appropriate to involve one or two of them, provided that they continue to listen and learn rather than closing off options or seeking to draw conclusions too early.

12 Present the feedback and agree actions

In the fourth and final quarter of the meeting, the visiting team presents their feedback to the host team and answers any questions. The presentation will be along the lines of “what we have learned, what options we see, and what has worked elsewhere”. As with all feedback, this should start with the positive – what has been done well, and then what options there are to do things differently. When presenting what has worked elsewhere, presenters should simply tell the story rather than prescribing “you should...”

In closing, the person who called the peer assist should acknowledge the contribution of the visiting team, and also commit to when he or she will get back with an action list of what the team are going to do differently.

Finally, invite the visiting team to reflect on what they have learned and what they will take away and apply. Learning is never one-way.

4.11.4 Are there any other points I should be aware of?

- > In the context of the NHS, an important consideration is that of evidence-based practice. When conducting peer assists, you will need to ensure that lessons learned are based on a combination of both on-the-job experience and sound research evidence.
- > You might wish to carry out an After Action Review following your peer assist to look at whether the process went according to plan, what was different and why, and what can you learn from that for the next time.
- > While the peer assist process is designed to provide input for a specific purpose or project, consider who else might benefit from the lessons learned. Always look out for opportunities to share and re-use knowledge and learning.

4.11.5 Resources and references

As the peer assist process was pioneered by BP, the above information was taken exclusively from the following two key sources. These sources easily provide enough information to get started.

Collison, Chris and Parcell Geoff. (2001) **Learning to fly: practical lessons from one of the world's leading knowledge companies**. Oxford: Capstone. Chapter 6: Learning from your peers. (This book as a whole is well worth a read – refreshingly low on theory and jargon, and high on sound, practical advice based on proven results).

Collison, Chris Collison Parcell, Geoff. **Learning before doing: BP's peer assist process**. Knowledge Management Magazine, 2001, Volume 4, Issue 10 An article that draws on the information in the chapter 6 of the above book.

4.12 Social Network Analysis

4.12.1 What is social network analysis?

“Social network analysis is the mapping and measuring of relationships and flows between people, groups, organisations, computers or other information/knowledge processing entities.” (Valdis Krebs, 2002).

In the context of knowledge management, social network analysis (SNA) enables relationships between people to be mapped in order to identify knowledge flows: who do people seek information and knowledge from? Who do they share their information and knowledge with? In contrast to an organisation chart which shows formal relationships – who works where and who reports to whom, a social network analysis chart shows informal relationships – who knows who and who shares information and knowledge with who. It therefore allows managers to visualise and understand the many relationships that can either facilitate or impede knowledge creation and sharing. Because these relationships are normally invisible, SNA is sometimes referred to as an “organisational x-ray” – showing the real networks that operate underneath the surface organisational structure.

4.12.2 What are the benefits?

Once social relationships and knowledge flows can be seen, they can be evaluated and measured. The results of social network analyses can be used at the level of individuals, departments or organisations to:

- > identify teams and individuals playing central roles – thought leaders, key knowledge brokers, experts, etc.;
- > identify isolated teams or individuals;
- > detect information bottlenecks;
- > spot opportunities for knowledge flow improvements;
- > accelerate the flow of knowledge and information across functional and organisational boundaries;
- > improve the effectiveness of formal communication channels;
- > target opportunities where increased knowledge flow will have the most impact;
- > raise awareness of the importance of informal networks.

4.12.3 How do I go about it?

The process of social network analysis typically involves the use of questionnaires and/or interviews to gather information about the relationships between a defined group or network of people. The responses gathered are then mapped using a software tool specifically designed for the purpose (see Resources and references below for examples). This data gathering and analysis process provides a baseline against which you can then plan and prioritise the appropriate changes and interventions to improve the social connections and knowledge flows within the group or network.

Key stages of the process will typically include:

- > Identifying the network of people to be analysed (e.g. team, work group, department).
- > Gathering background information – interviewing managers and key staff to understand the specific needs and problems.
- > Clarifying objectives, defining the scope of the analysis and agreeing the level of reporting required.
- > Formulating hypotheses and questions.
- > Developing the survey methodology and designing the questionnaire.
- > Surveying the individuals in the network to identify the relationships and knowledge flows between them.
- > Use a software mapping tool to visually map out the network.

- > Reviewing the map and the problems and opportunities highlighted using interviews and/or workshops.
- > Designing and implementing actions to bring about desired changes.
- > Mapping the network again after a suitable period of time.

4.12.4 Are there any other points I should be aware of?

In order for SNA maps to be meaningful, it is important to know what information you need to gather in order to build a relevant picture of your group or network. Good survey design and questionnaire design are therefore key considerations.

Questions will be typically based on factors such as:

- > Who knows who and how well?
- > How well do people know each other's knowledge and skills?
- > Who or what gives people information about xyz?
- > What resources do people use to find information/feedback/ideas/advice about xyz?
- > What resources do people use to share information about xyz?

4.12.5 More information

Hanneman, Robert. Introduction to social network methods.

An online book available [here](#)

[International Network for Social Network Analysis](#)

4.13 Storytelling

4.13.1 What is storytelling?

“Back in the mists of time when only the monks and the monarchy could write, there three ways in which we learnt: first by having a go at it. When that didn’t work, or you wanted to improve – by watching someone who knew how to do it. Then at the end of the day when the sun had set and it got too dark to see what anyone was doing – by listening to that “someone” tell you about the time when they...” (Weaver – Grazing Animals Project, 2003)

Storytelling is quite simply the use of stories in organisations as a communication tool to share knowledge. Traditionally, organisational communications have had a tendency to be somewhat dry and lacking in inspiration. Storytelling uses a range of techniques to engage, involve and inspire people, using language that is more authentic (everyday language as opposed to “textbook buzzword speak”) and a narrative form that people find interesting and fun.

Storytelling has of course existed for thousands of years as a means of exchanging information and generating understanding. Similarly, it has always existed in organisations – otherwise known as “the grapevine”. However, as a deliberate tool for sharing knowledge it is quite recent but growing very rapidly, to the extent that it is becoming a favoured technique among an increasing number of management consultants.

4.13.2 What are the benefits?

When used effectively, storytelling offers numerous advantages over more traditional organisational communication techniques:

- > Stories communicate ideas holistically, conveying a rich yet clear message, and so they are an excellent way of communicating complicated ideas and concepts in an easy-to-understand form. Stories therefore allow people to convey tacit knowledge that might otherwise be difficult to articulate; in addition, because stories are told with feeling, they can allow people to communicate more than they realise they know.
- > Storytelling provides the context in which knowledge arises as well as the knowledge itself, and hence can increase the likelihood of accurate and meaningful knowledge transfer.
- > Stories are an excellent vehicle for learning, as true learning requires interest, which abstract principles and impersonal procedures rarely provide.
- > Stories are memorable – their messages tend to “stick” and they get passed on.
- > Stories can provide a “living, breathing” example of how to do something and why it works rather than telling people what to do, hence people are more open to their lessons.
- > Stories therefore often lead to direct action – they can help to close the “knowing-doing gap” (the difference between knowing how to do something and actually doing it).
- > Storytelling can help to make organisational communication more “human” – not only do they use natural day-to-day language, but they also elicit an emotional response as well as thoughts and actions.
- > Stories can nurture a sense of community and help to build relationships.
- > People enjoy sharing stories – stories enliven and entertain.

4.13.3 What can stories be used for?

Stories can be used for all manner of purposes in an organisation. Different purposes will tend to require different kinds of stories. Steve Denning (<http://www.SteveDenning.com>) outlines 8 possible purposes for using storytelling in organisations:

- 1 **Storytelling to ignite organisational change**
Experience has shown that storytelling can be highly effective as a change agent, even in change-resistant organisations. Telling an appropriate story can stimulate people to think actively about the implications of change and to projecting themselves into visions of the future, enabling them to better understand what it will be like to be doing things in a different way, rather than being given vague, abstract concepts about it.
- 2 **Storytelling for communications**
In contrast to the conventional approach which views communications as the sending of a message from a communicator to a recipient, storytelling is based on a more interactive view of communication. Because the listener imaginatively recreates the story in his or her own mind, the story is not perceived as coming from outside, but rather as something that is part of the listener's own identity. The idea becomes the listener's own.
- 3 **Storytelling to capture tacit knowledge**
Tacit knowledge can be a multi-layered and multi-dimensional thing and as such it is often difficult to articulate (for example, have you ever tried to explain to someone who can't swim how to swim, without actually showing them?). Stories can provide a way of allowing people to express and share tacit knowledge in rich and meaningful ways, rather than being forced to articulate it in more "structured" ways that can detract from its value.
- 4 **Storytelling to embody and transfer knowledge**
Similarly, a simple story can communicate a complex multi-dimensioned idea, not simply by transmitting information as a message, but by actively involving the listeners in co-creating that idea. Furthermore, as a story is told and retold, it changes, and so the knowledge embodied in it is constantly being developed and built upon.
- 5 **Use of stories for innovation**
The use of storytelling in innovation and knowledge creation can encourage people to move away from linear thinking towards a more multi-dimensional view, to see new connections between things, and also to marry scientific logic with a more creative or intuitive approach.
- 6 **Storytelling to build community**
There is something about stories that brings people together and fosters a sense of community. Storytelling is non-hierarchical, it unlocks feelings and emotions as well as thought processes, and hence it helps to build relationships and trust.
- 7 **Storytelling to enhance technology**
People often find it difficult to communicate about technology. Users can have trouble articulating their needs and expectations, while experts can have difficulty "talking in plain English". Wherever there is a gap in language and understanding, storytelling can provide a bridge, by communicating the real essence of what each party is trying to get across.
- 8 **Storytelling for individual growth**
Storytelling is a skill, and one that draws on a number of other key skills, mostly relating to interpersonal communication. The development of these skills is an important component of most knowledge management programmes.

4.13.4 What makes a “good” story?

Larry Prusak (see *Storytelling: passport to the 21st century* <http://www.creatingthe21stcentury.org/>) defines 4 attributes of a good story:

- 1 **Endurance**
Good stories endure. They may change a little – or even a lot, but the key lessons remain the same. They also need to be succinct enough for people to remember.
- 2 **Salience**
Good stories are relevant to their audience, they have a point, and they have emotional impact.
- 3 **Sense-making**
Good stories explain something, make sense of something. Perhaps they show you how to behave in particular situation, how to resolve a problem, or why something happened the way it did. They have a prescriptive normative value: do x and y will occur.
- 4 **Comfort level**
To be effective, stories must make sense within the context of the listener’s experience – they need to ring true.

Other tips (from Steve Denning – <http://www.SteveDenning.com>) include:

- > **Fact versus fiction**
Storytelling can be counter-productive when the story told is not true. A story can be factually accurate while being authentically untrue and many corporate communications take this form, particularly those that are told more as a public relations exercise than as a means to promote genuine learning.
- > **Oral versus written stories**
In the written word there is a distance between the speaker and the spoken, and so in an organisational context, it can lack some authenticity. Practitioners have found that oral storytelling has a greater impact than putting stories into booklets or videos or online. This doesn’t mean that written stories can’t achieve good effects, but that they work in different kinds of ways.
- > **The “happy ending”**
Steve Denning reports having had no success in telling a story along the lines of: “Let me tell you about an organisation that didn’t implement knowledge management and it went bankrupt.” In other words, focus on the positive.
- > **The “hero”**
A story needs to be told from the perspective of a single protagonist, someone who everyone in the organisation can instantly understand, empathise with, resonate with their dilemma, and understand what they were going through.
- > **The “plot”**
A story needs to have a certain strangeness or incongruity – something that is remarkable and therefore grabs attention. (“That’s remarkable that you could get an answer to a question like that in such a short time frame”). But it is nevertheless plausible (email exists, the web exists).
- > **A beginning, middle, and an end**
A story needs to embody whatever it is you are seeking to get across as fully as possible. Don’t leave loose ends.
- > **Timing**
A story should be as recent as possible – older stories can work, but the fresher the better. “This happened last week” conveys a sense of urgency.

4.13.5 Are there any other points I should be aware of?

- > Storytelling is not a panacea – it doesn't always work. Storytelling can only be as good as the underlying idea being conveyed. If that idea is unsound, storytelling may well reveal its inadequacy.
- > Even when the underlying idea is good, there are times when storytelling is inappropriate or ineffective. For example: routine situations in which nothing new, unexpected or different happened; or situations that require objectivity in reporting.
- > Storytelling does not replace analytical thinking. It supplements it by helping to give it context and meaning. Abstract analysis is often easier to understand when seen through the lens of a well-chosen story.
- > Try to avoid telling a story for the first time at a high profile, high-risk occasion. Test the story in advance on a variety of similar audiences, so that you know exactly the effect that the story will have.
- > When using the knowledge contained in the stories of others to support your own decisions, consider how you will balance that anecdotal knowledge with evidence-based knowledge: how will you assess and integrate the knowledge from stories?
- > We are all storytellers and spend much of our lives telling stories whether we realise it or not. However we can all get better at storytelling, particularly at using stories to achieve specific effects. Understanding how and why storytelling works and learning what kinds of stories work in different situations, and what kinds of effects different kinds of stories have, can enable us to be more adept storytellers in an organisational context.

4.13.6 More information

SteveDenning.com

<http://www.stevedenning.com>

Steve Denning is widely regarded as one of the main "gurus" of storytelling. His website has a collection of materials on knowledge sharing and storytelling, and also includes a facility where you can also e-mail Steve direct with questions and comments.

Storytelling: passport to the 21st century

<http://www.creatingthe21stcentury.org/>

A website in which four leading thinkers on knowledge management explore storytelling. An extremely content-rich site, almost like an online book.

4.14 White Pages

4.14.1 What are “white pages”?

An organisational “white pages” is a tool to help people to find others in their organisation that have the knowledge and expertise they need for a particular task or project. It is like a staff directory, but rather than simply listing people’s names, job titles, departments and contact details, it includes details about their knowledge, skills, experience and interests.

“White pages” are electronic rather than paper-based, so that users can search it in a variety of ways, just like they might perform a search on the Internet.

“White pages” are often also known as experts’ directories, expertise directories, skills directories or capabilities catalogues.

4.14.2 What are the benefits?

A “white pages” directory is particularly beneficial in organisations that are over a certain size or that are spread around in different locations, and so people don’t have the opportunity to get to know each other well. Specific benefits include:

- > “White pages” are technologically quite simple to create
- > They can be extremely effective in helping organisations to “know what they know”
- > They allow people to find the tacit knowledge they need, by easily finding the people who have it
- > They can underpin all of the organisations various initiatives to connect people with people, and to learn from others
- > A “white pages” is not necessarily aimed at those embarking on a major project or piece of work; often the greatest value comes from a multitude of simple ten-minute conversations in which people ask each other for a quick word of advice or a steer in the right direction.

By way of an example, can you find an asthma expert who has considerable experience in a specific treatment, has successfully used that treatment with children under five, and is currently in or around the Birmingham area, all in under a minute? A good “white pages” could enable you to do that (assuming of course that such a person exists!).

4.14.3 How do I go about it?

Be clear about your aims

First, be clear about your aims. Using a “white pages” to find people is a means to an end, not an end in itself. How do you intend for people to use it? For what purposes do you envisage them using the system to find people? How will they approach and use the system? It is vital to be clear on this before you begin designing any system. Talk to people in your organisation to find out about their needs and views. Talk to people in other organisations who have already implemented a “white pages” to find out what you can learn from their experiences.

Ownership and onus

Opinions vary about whether to make individuals’ inclusion a “white pages” compulsory or voluntary, and similarly whether to create and manage entries centrally or provide a template for individuals to create and update their own entries. Organisations such as BP-Amoco and Texaco who have implemented successful “white pages” strongly favour the voluntary approach in which individuals create their own entries if they so choose. Their experience would seem to show that ownership needs to be with the people contributing to, and using, the system.

This has a number of advantages. First, it creates a sense of personal responsibility for the system which in turn fosters support; second, it allows people to present their entries in a way that reflects how they want to be known rather than how the organisation sees them; and hence third, it helps to create a “living” system that reflects real personalities and therefore encourages personal relationships.

Balance formal with informal information

While the purpose of a “white pages” is to help people find others with relevant knowledge and expertise, the chances of them actually acting on that information and calling that person will be greatly increased if they feel they “know” them. This sense of “knowing” or familiarity can be created to some extent by including some personal information and a photograph in people’s entries. Allow people to be creative in how they present themselves. For example, at BP people are encouraged to upload photographs of themselves at home or at play – perhaps with their children or enjoying their favourite sport – rather than using a more sterile passport-style photograph.

What to include

Common fields found in a “white pages” include:

- > Name
- > Job title
- > Department or team
- > A brief job description and/or description of what is currently being worked on and what has been worked on in the past
- > Relevant professional qualifications
- > An uploaded CV
- > Areas of knowledge and expertise (selected from a pre-defined list of subjects/terms; people might also rank their knowledge, for example from “extensive” to “working knowledge” to “basic”)
- > Main areas of interest
- > Key contacts – both internal and external
- > Membership of communities of practice or other knowledge networks
- > Personal profile
- > Photograph
- > Contact information

Organising entries for ease of loading and retrieval

In order to encourage people to create entries, you will need to make it easy for them. Most organisations use a simple template into which users enter their information. In creating a template, think not only about ease of entry, but also about how users will search the system to retrieve information. You will need a common language or taxonomy to describe information in the essential fields, in particular those relating to knowledge, expertise, areas of work and interests. You might like to create fixed terms and options for these fields that users can select from a menu or a selection of tick-boxes. This could also be supplemented with a box for users to enter free text, perhaps with some suggested terms alongside it to guide their use of language.

In contrast, personal information can of course be relatively unstructured – leave scope for more creativity and free expression here!

Keeping it current

A “white pages” must be maintained and kept up-to-date. People are constantly moving locations, changing jobs, and adding to their knowledge and skills. If your “white pages” is linked with your human resources system, then job details and contact information can be automatically updated. Alternatively if individuals have sole responsibility for their own entries, then you might build a reminder process into your system, whereby an e-mail is sent automatically to remind users who haven’t updated their entries since a certain time period, such as three to six months. Similarly, be sure to build information about the “white pages” into processes for new joiners and leavers, so that new joiners know about the system and are encouraged to add their entry, and leavers remember to either delete their entry or delegate it to someone else to “own” (assuming they are happy for people to still contact them after they have left).

Encouraging use

You will need to actively market your “white pages”. Don’t assume that if you create it, people will automatically use it. Your marketing efforts will need to encourage both participation and use; the two are inextricably linked as you need a certain amount of submissions for people to see the “white pages” as being worth using. Possible ideas might include posters, presence at events such as learning fairs, nominating champions to promote the “white pages” in various parts of the organisation, or competitions that give prizes to the first departments in which everyone is uploaded, or for those with the best success stories of how using the “white pages” has helped them in their job. Be sure to focus on the benefits in your marketing efforts – people will want to know “what’s in it for me?”.

4.14.4 Are there any other points I should be aware of?

- > A “white pages” need not just include individuals – for example you might like to include formal communities of practice, project teams, etc.
- > Similarly, a “white pages” need not just cover internal people; you can also have a similar system, or a section, for suppliers of various types (e.g. IT outsourcing, consultancy services, recruitment agencies, etc.), and for other organisations with which you work or collaborate, both within and outside the NHS.
- > You can add further value to your “white pages” by linking it with other knowledge management tools, such as those available on an intranet. For example you might have collaborative working tools or best practice databases that list relevant contacts – these contact listings can be linked directly into the “white pages” – and vice versa.
- > Be careful when using the term “expert” – it can be quite a “political” one and may create hierarchies; if some people are considered as experts, this might make others feel that their knowledge is less valuable so it may discourage their contribution.
- > Be aware of issues relating to data protection – check with your legal department to ensure that your “white pages” will comply with relevant requirements, and to create a policy on its correct use.

5 DEVELOPING THE KM ENVIRONMENT

Whatever knowledge management tools and techniques you use, they are unlikely to work in isolation – they need to be supported by the right kind of environment. The three key elements of that environment are outlined here, namely:

- > People
- > Processes
- > Technology

Your organisation's people, processes and technology will at all times be acting as either enablers of, or barriers to, effective knowledge management. You will need to identify the barriers and remove them. You will probably also need to build on existing enablers and create additional ones. This is often where the greatest knowledge management challenges lie.

5.1 People

5.1.1 Introduction

Of the three components of knowledge management – people, processes and technology – the most important is undoubtedly people. Why? Because creating, sharing and using knowledge is something that is done by people. Processes and technology can help to enable and facilitate knowledge management, but at the end of the day it is people who either do it or don't do it. A number of organisations have learned this through bitter experience. Of those companies that led the way in the early days of knowledge management, many focused primarily on processes and technology – to their cost. Having made significant investments in the latest systems, they then found that people simply did not use them and so the systems ended up being confined to what became known as “the ”. Since then, organisations have learned that it is people who “make or break” knowledge management initiatives.

5.1.2 Why people don't want to share knowledge – or do they?

There is a traditional view that knowledge sharing is not a natural act and that people need to be coerced or cajoled into it. In fact why not take a few moments right now to think about some of the values, attitudes and behaviours in your organisation that constitute barriers to seeking, sharing and using knowledge? For example:

- > “Knowledge is power”
- > “I don't have time”
- > “I've got too much real work to do”
- > “That's not my job”
- > “You're just using other people's ideas and taking the credit”
- > “I want to do things my way”
- > “This is how it's always been done”
- > “I'd like to help, but my manager won't like it if I waste time doing things for another team”
- > “That's not how we do things around here”
- > “I don't trust them”
- > “Are you telling me how to do my job?”
- > “I'm already suffering from information overload”
- > “We're not allowed to make mistakes, let alone admit to them, share them or learn from them”
- > “Don't bother others by asking them for help, work it out for yourself”
- > “You should already know all the answers”
- > “It's just another management fad; if I ignore it, it'll eventually go away”

- > “What’s in it for me?”
- > “No”

These are just a few! However it may surprise you to learn that there is also a view that knowledge sharing is in fact a very natural act and that we are already doing it all the time. If you take a few moments to watch people both at work and at play, you can see the evidence daily: in corridors, by the coffee machine, on the phone, by e-mail, at the pub, etc. – people are freely sharing knowledge all the time. Similarly, knowledge management consultants have reported that in their experience of working with a range of organisations, people want to share. They want to make a valuable contribution to their organisations, they like to see their knowledge being used, they want to help their colleagues, and they want to learn from others who they trust and respect.

So why does the “people” aspect of knowledge management tend to be such a challenge for most organisations?

Because our organisational cultures get in the way, they give rise to, and reinforce, behaviours that inhibit knowledge sharing. Most of us in the Western world have been trained to believe in individual effort and competition, and this from an earlier age than you might realise – remember at school how knowledge sharing was called cheating? Since then, our working environments have largely perpetuated this way of thinking. We compete for jobs, salaries, promotions, recognition, status, power, budgets and resources, always believing that if someone else has something then there’s less of it left for us. Put simply, we have been trained not to share.

Awareness of this is the first step to overcoming it. It is important to understand that we all carry this kind of programming and we all need to take responsibility for unlearning it and rethinking our old philosophies. Contrary to popular belief, experience is increasingly showing that people are generally willing to share, but they need a supportive, encouraging and safe environment in which to do so. Sadly, most organisational cultures have some way to go before they can claim to provide such an environment.

5.1.3 The two big makers or breakers: culture and behaviour

Essentially there are two key aspects of “people” that you will need to address when introducing knowledge management into an organisation: organisational culture and individual behaviour. The two are inextricably linked.

5.1.4 Organisational culture

Effective knowledge management requires a “knowledge sharing” culture to be successful. What exactly is organisational culture? The short answer is that culture is “the way we do things around here”. A more complete answer is that an organisational culture is a set of values, beliefs, assumptions and attitudes that are deeply held by the people in an organisation. They influence the decisions people make and the ways in which they behave. In organisations that recognise only individual achievement, people are rewarded for their personal knowledge and have no incentive to share it. In a knowledge sharing culture, people can be rewarded for individual achievements, but are also recognised and rewarded for their knowledge sharing and contributions to team efforts. Key characteristics of a knowledge sharing culture include the following:

- > top leadership sees knowledge as a strategic asset and provides incentives and support for knowledge management processes;
- > the organisation focuses on the development and exploitation of its knowledge assets;
- > tools and processes for managing knowledge are clearly defined;
- > knowledge creation, sharing and use are a natural and recognised part of the organisation’s processes, not separate from normal work processes;
- > groups within the organisation cooperate instead of compete with each other;
- > knowledge is made accessible to everyone who can contribute to it or use it;
- > rewards and performance evaluations specifically recognise contributions to, and use of, the organisation’s knowledge base; communication channels and a common technology infrastructure enable and enhance knowledge management activities.

Organisational cultures run deep: the older and the bigger the organisation, the deeper they will tend to run. Which brings us to the question: to what extent can we change organisational culture? There is some debate about this, but the common view is that culture can be changed, but usually not without a great deal of time and effort. Think about the last time you tried to change somebody’s mind about just one thing: multiply that by

the number of people in your organisation then add to it the cohesive power of shared beliefs, and you begin to get an idea of the task at hand. In other words, taking on the entire organisational culture at once is simply not feasible. The good news is that there is another approach: individual behaviour.

5.1.5 Individual behaviour

If knowledge management is new to an organisation, it requires changes in individual behaviour. Individuals must be encouraged to incorporate knowledge management activities into their daily routines. This includes activities relating to seeking out knowledge when they have questions or problems, finding and using existing knowledge rather than reinventing the wheel, sharing their own knowledge, learning from others' experience and helping others to learn from theirs.

While people's behaviours are largely a function of the organisational culture, they are easier to see and to identify as "makers or breakers" – enablers or barriers – to knowledge sharing. This is best approached from the context of your current objectives, issues and the day-to-day work of your employees. By changing the way people behave and by showing them new ways of working that can make their jobs easier and more successful, you can not only change their behaviour, but also affect the underlying cultural assumptions that drive people's behaviour in the first place. In other words, people learn best by doing, rather than being told.

Of course for individual behaviours to change in a sustained way, there needs to be a conducive organisational culture, which brings us back to the earlier point that the two are inextricably linked.

5.1.6 How do we make the changes?

Assuming that people will generally share knowledge if the barriers and disincentives to doing so are removed, then you can seek to bring about lasting changes in both individual behaviours and organisational culture by:

- > focusing on changing individual behaviours first
- > understanding the barriers to knowledge sharing and seeking to eliminate them
- > introducing policies and practices that enable and encourage knowledge sharing
- > understanding your organisational culture and working within it rather than against it while gradually working to change it

Here are some approaches and issues to consider:

5.1.7 Culture – work with it while you work towards changing it

If the people in your organisation hold a fundamental belief that asking for help is a sign of weakness, then immediately launching a peer assist programme might not be the best way forward. If people prefer to seek information from other people, then loading endless documents into knowledge databases is unlikely to work. And if people feel that they are not allowed to make mistakes and that to admit to mistakes might be dangerous, then you may need to wait until this has started to shift before introducing after action reviews. In other words, if you pit yourself against the organisational culture, you are fairly likely to lose. Far better to work within it, at least initially, and then seek to change it from the inside.

For example, you might have something you feel is good practice that you want to share, but people in your organisation have a "not invented here" attitude and your good ideas have been ignored in the past. Instead of trying to sell your idea, ask for help to improve your practice. You may well find that not only do you receive plenty of input to help you improve it further, but others are suddenly more interested in finding out more with a view to applying it – because they have contributed to its development.

5.1.8 Lead by example

Actions speak louder than words. Nobody likes to be told to change their behaviour by someone who is clearly not exhibiting that behaviour themselves – and rightly so. Good leadership is key. Even if leaders are supporters of knowledge management, they still might need some coaching. Knowledge seeking and sharing behaviours may well be as new to your leaders as to everyone else. They need to be shown the way, and then be seen to be leading the way. For example, do leaders openly and actively share knowledge about what they are doing, where the organisation is going, what their plans for the future are, how things are financially? Do they gather knowledge from a range of people throughout the organisation as part of their decision-making processes? Do

they seek honest input and feedback from both staff and patients? Do they listen, and where appropriate, do they act on it?

As well as leaders, middle managers are also very important in knowledge management. For most people in an organisation, the person who most affects their day-to-day work is their line manager or supervisor. These managers are often evaluated on how their individual section or department performs which means that the focus of their attention may not be on the bigger picture. Like senior managers, middle managers will most likely need some coaching to change their behaviours.

Finally, don't forget that you, as a knowledge management change agent, will need to lead by example too.

5.1.9 Align rewards and recognition

As with any change, whenever people are asked to do something differently, they need a good reason: what's in it for me? If people believe they will benefit from sharing knowledge, either directly or indirectly, they are more likely to share.

When looking at reward and recognition, remember that different people are motivated by different things; some by money, others by status, some by knowledge, others by freedom etc. A good reward system will recognise this.

In seeking to create and sustain a knowledge sharing culture, you will need to address your organisation's formal rewards that are embedded in your human resources policies and practices including salaries, bonuses, promotions etc. Most organisations' formal reward systems still reward individual effort and knowledge. To create a culture that supports knowledge creation, sharing and re-use, you will need to recognise and reward those behaviours. However some practitioners recommend focusing on informal rewards and recognition in the initial stages; they suggest that seeking to change formal reward structures very early on in the process could be damaging as you might lose the support of people who feel threatened. While the first behavioural changes are taking place, people need a safe space to learn and readjust without being assessed or penalised.

Informal rewards and incentives need not be financial, nor need they be complicated. A number of studies have shown that one of the most effective incentives is simple recognition. For example, you might decide to personalise knowledge: "John Broadbent's Guide to Winter Capacity Planning" or "Camden NHS Trust's Booking Process". This simple approach can increase the credibility of the knowledge, thereby increasing its likely use, and also make those who created and shared it feel valued and credited.

Be sure that you reward only valuable knowledge – knowledge that is actually used. Organisations who have offered incentives to staff to submit documents to a database or other knowledge system have often ended up with systems full of worthless information that nobody uses. Similarly, do not just focus on rewarding people who share their knowledge. This is only part of the knowledge equation. At the end of the day, you are seeking to encourage people to use and reuse knowledge, so reward the user for reusing and building on existing knowledge rather than wasting time and energy reinventing the wheel.

5.1.10 Make knowledge work part of everyone's job

Of all the reasons people have for not sharing knowledge, not having time is one of the most common. People are too busy with "real work". Knowledge work needs to be recognized as "real work" – an integral part of everyone's job. People need time to seek out knowledge, to reflect, to share what they know, to change the way they do things based on knowledge and learning received. They need to know that these activities are regarded not only as acceptable, but important, by the organisation. By making knowledge sharing a formal part of people's responsibilities, using it in job descriptions, and incorporating it into performance appraisal processes, you can clearly demonstrate the importance of knowledge work and begin to lay the foundations for a real knowledge culture.

5.1.11 Develop relationships

People share things better with people they know and trust. If people don't share personal relationships or mutual trust, they are unlikely to share knowledge of high value. Similarly, whether or not people seek out and use the knowledge of others depends if they know and trust the source of the knowledge. People also generally prefer to learn from their peers than from managers telling them what to do. And studies show that people will more often than not prefer to contact someone they know for information before searching a knowledge database.

While you cannot shift an organisational culture to one of openness and mutual trust overnight, you can make significant progress by helping and encouraging individuals and teams to form new and better relationships. As organisations get bigger, people get busier, and technology creates increasingly “virtual” ways of communicating with each other (across the internet, by e-mail, via video conferencing etc.), opportunities for developing relationships can seem few and far between – unless you make it a deliberate strategy.

While early practitioners of knowledge management focused on technology, the current view is that the greatest value can be realised by building relationships and connecting people with people, using tools such as communities of practice, peer assists, learning events, coaching and mentoring, and others.

5.1.12 Educate people about what is involved and skill them to do it

Given that most of us have not been educated or trained to share, and therefore, we simply don’t know how to carry out one of the core activities of knowledge management. In many cases people simply don’t realise what they know, or they don’t realise the value of what they know. Even if they do, they may not know with whom to share or how to share what they know.

As with any other behavioural change, you need to show people clearly what is expected of them and what is involved, and then give them the skills to do it. You need to show people what creating, sharing and using knowledge looks like – both in general terms, and specifically within your organisation. You may also need to show them what exactly you mean by “knowledge”. Knowledge can seem very conceptual, at least to begin with; it is not always obvious to people what it is they need to know, what they currently know, and how that might be useful to others.

In short, you need to train people in knowledge management skills. Educate them about what knowledge is valuable, how to create it, find it, evaluate it, share it, use it, adapt it, reuse it etc. Ensure that essential communication skills are also looked at. For example, knowledge sharing works better if people develop active listening skills. Active listening is where people spend time understanding what the other person really means, instead of focusing on what their own response will be and queuing up to speak. Another important skill in knowledge sharing is giving and receiving feedback – both positive and “negative”. Challenging another person’s beliefs or approaches in a way that causes neither offence nor defence is not always easy, nor is receiving such a challenge. Similarly, many people feel equally intimidated about both giving and receiving compliments and praise.

You will also need to ensure that people have enough information about the context in which they are working; for example, to effectively seek and share knowledge, people need some understanding of organisational strategies and goals, of the interrelationships between different functions and teams in the organisation, of what knowledge is most valuable to the organisation, and how it can be used to best effect.

Start early by building aspects of knowledge work into your organisation’s induction programmes. (Note: if you don’t have a formal induction programme, are there informal processes in place to ensure that new recruits get the knowledge they need to learn what they need to know?). Look at integrating aspects of knowledge work into other general training programmes: people learn and apply learning most effectively when knowledge work is seen as an integral part of their day-to-day job rather than a separate add-on.

5.1.13 Demonstrate the value

It is important that people understand the benefits of knowledge sharing on a number of levels: benefits to the organisation, benefits to patients, and benefits to them personally. The more you can clearly demonstrate these benefits, the more people are likely to be open to change. Be ready to answer the inevitable “why should I, what’s in it for me?” question.

A number of studies have shown that by far the most effective incentive for producing lasting change is when the process of sharing knowledge is rewarded, supported, and celebrated, by the organisation. If this is not the case, then any artificial rewards and incentives will have little effect. In other words, knowledge management should provide intrinsic rewards to the people who use it. For example, does a particular knowledge system or process enable its users do their job more easily, more efficiently or more effectively? Does it help them provide a better service to their patients? Do people receive greater recognition from peers as key contributors and experts? Is their work faster, more accurate, more rewarding?

This is the bottom line: if knowledge management helps people to do their work, and the organisation’s culture supports it, then people will most likely adopt it; if it doesn’t, then they probably won’t. And probably rightly so!

There are many ways to demonstrate and reinforce value, even in the early stages when knowledge management is new and the benefits have not yet been fully realised. Again, you can build a knowledge element into training programmes, using case studies and action-based learning to demonstrate the value of good knowledge sharing practices. Storytelling can also be a very effective tool here, as can creating knowledge “champions” or “heroes”.

5.1.14 Create champions and heroes

A useful approach to showing people the benefits of knowledge sharing and to encourage them to change their behaviour is to create “knowledge champions” and/or subject “experts” dotted around the organisation. Every organisation has people who are naturally “knowledge savvy” – that is just their way of doing things: they love to learn and to share what they know with others. Similarly, every organisation has its “early adopters” – those who are first to change their behaviour and adopt new ways of working. Find these people and celebrate them as “heroes”; publicly recognise and reward their behaviour; encourage them to tell stories about what they did and what were the benefits. Create semi-formal roles that recognise this behaviour as a role model and allow these people to spend some time sharing their approach with, and inspiring, others.

5.1.15 Make it easy

Finally, remember that barriers to knowledge sharing are not just related to culture and behaviour. There are also barriers that relate to organisational structures and processes, and to technology. If you want people to change their ways of working, then you need to make it as easy and painless as possible for them. You need to identify, and as far as possible eliminate, these other barriers. Otherwise, even with the best will in the world, seeking and sharing knowledge may simply be more effort than it is worth for people. If technology is slow and unreliable, if different people use different systems and therefore cannot communicate or share documents easily, if structures promote hierarchies and internal competition rather than peer relationships and co-operation, if processes are highly task-oriented rather than people-oriented, then people will find knowledge sharing a challenge.

Similarly, when seeking to eliminate barriers and to introduce knowledge management tools, be sure to do so in a way that is integrated with people’s day-to-day working practices. A common mistake in knowledge management is to introduce technology and processes and then sit back and wait for people to use them – “if we build it, they will come”. If systems and processes are created in a way, which is not integrated with how people actually work, then they will not be used. It is critical to include users in the development of knowledge tools so that this all too common and costly mistake can be avoided.

5.1.16 Cultural change is not just a knowledge management issue

A final word on seeking to change organisational cultures and individual behaviours: this is neither quick nor easy, but for effective knowledge management, it is not optional.

However, you should not expect knowledge management to carry the full weight of cultural change. Culture is critical to knowledge management, but it is equally critical in either enabling or disabling most other organisational processes. Cultural change is too big a task for knowledge management to take on alone. A better approach is to combine initiatives and present a common vision and focus that integrates knowledge management with overall organisational learning and performance improvement. This may well be all the more important in the context of the NHS, where people are already becoming “initiative-weary”. That being said, there is currently a tremendous opportunity to align knowledge management with the context of the massive transformation currently under way in the form of the ten-year modernisation programme, set out in the NHS Plan. Delivery of the Plan will require change and transformation on a vast scale and on a number of levels throughout the NHS. Knowledge management is a natural partner to such transformation, as it will require major cultural change, new ways of working, and a strong focus on knowledge and learning. Strike while the iron is hot!

5.1.17 More information

Lelic Simon. [“Your say”: creating a knowledge sharing culture](#). Inside Knowledge, 2001, 4(5)

5.2 KM Processes

5.2.1 Introduction

Knowledge management processes are the activities or initiatives you put in place to enable and facilitate the creation, sharing and use of knowledge for the benefit of your organisation. Processes also refer to your organisation's general infrastructure and processes (or "ways of doing things"), and the extent to which these act as enablers of, or barriers to, good knowledge management practice. Hence the "process" component involves looking at:

- > Organisational processes and infrastructure – and whether they currently help or hinder knowledge management;
- > Knowledge management processes and infrastructure – the "process" element of what needs to be put in place to make knowledge management happen (as well as people/culture and technology).

5.2.2 Organisational processes and infrastructure

Every organisation has a structure and processes, and these operate on a number of levels. The buildings, in which you work, and their geographical location, provide a physical structure. The way the organisation is divided into departments and functions provides another form of structure. How people are organised into hierarchies and the relationships between them provides another. The way that resources are allocated – finances, technology, equipment, etc. – provides yet another. Each of these types and layers of structure will have an impact on how knowledge is created, shared and used in an organisation. For example:

- > Does everyone in your organisation have ready access to a computer? Do they know how to use it?
- > Is everyone located in the same building or are they dispersed across different buildings or even different towns or regions?
- > Within each building, how is the space organised? Are people shut off from each other in offices with closed doors or is the space more open? Are managers located in the same areas as their teams, are they visible and accessible, or are they hidden away in a private area? Are there areas where people can simply "be" together – such as a café, or chairs and tables near a coffee machine, or informal "breakout rooms" – in addition to formal office and meeting space?
- > What is the nature of the relationship between various departments and functions? Is it competitive or collaborative? How is this sustained, for example do departments have to compete for resources? Or is there a higher "status" attached to some departments over others?
- > Is your organisation very hierarchical with lots of layers of management and staff, and long chains of command? Or is it a flatter, more functional structure? Do people's job titles reflect that hierarchy and imply status, or do they simply describe what a person does?
- > How do people go about their jobs? Are there set processes and procedures in place to do particular jobs that people must follow? Or is there scope for creativity and initiative? Do these processes include knowledge components? Do people have time to seek and share knowledge and to reflect on it as they go about their work, or are they always under pressure to get the job done and produce results?

Often, the best way to find out whether and how an organisation's infrastructure and processes are helping or hindering people is to ask them. But before you do, be aware of the impact of both infrastructure and culture on people's willingness to tell the truth – does your organisation make it safe for them to speak their mind openly?

5.2.3 Knowledge management processes

In bringing knowledge management into your organisation, you will need to select and implement a number of processes that will help your organisation to be better at creating, finding, acquiring, organising, sharing and using the knowledge it needs to meet its goals. There are many such processes, including for example:

- > Conducting knowledge audits to identify knowledge needs, knowledge resources and knowledge flows
- > Creating knowledge strategies to guide the overall approach

- > Connecting people with people to share tacit knowledge using approaches such as communities of practice or learning events
- > Connecting people with information to share explicit knowledge using approaches such as best practices databases, and using content management processes to ensure that explicit knowledge is current, relevant and easily accessible
- > Creating opportunities for people to generate new knowledge, for example through collaborative working and learning
- > Introducing processes to help people seek and use the knowledge of others such as peer assists
- > Teaching people to share knowledge in ways that inspire people by using storytelling techniques
- > Encouraging people to prioritise learning as part of their day-to-day work, by learning before, during and after the tasks and projects they have performed

You can find more details of each of these in the KM toolbox. Some knowledge management processes are fairly new to organisations but many are not – they are simply being considered from a new perspective, that of focusing on knowledge. There is no “perfect” process nor is there a “one size that fits all”. Your choice of processes will depend on the nature of your organisation.

5.2.4 Knowledge management infrastructure

A knowledge management infrastructure includes the knowledge management processes (as above) put in place to ensure good knowledge management practice, and also the organisational infrastructure that is created to enable these processes – the essential management and staff roles and responsibilities that need to be put in place to support the new processes and initiatives. In other words, the people who will take the lead in driving it all forward and bringing about the necessary changes. This infrastructure may have a number of levels, depending on the size and structure of your organisation. For example:

- > **Ownership and a “home”**
Where will knowledge management “live” within your organisation? Who “owns” it? Who is accountable for results? Knowledge management can reside in a range of places in organisations such as within information management, information technology, human resources, training, corporate universities, research and development, support services, or as a separate function reporting directly to the board. When making this decision, think not only about practicalities, but also about what message you are conveying about knowledge management by the “home” you are giving it, and also what impact that “home” is likely to have on the direction and development of your knowledge management efforts. For example, if knowledge management is part of IT (information technology), might issues of people and organisational culture take a back seat to technology? Or, if knowledge management is part of research and development, might there be too much focus on creating and finding new knowledge and not enough on reusing the knowledge you already have? There are no “right” answers here, but an awareness of these kinds of issues is key.
- > **Knowledge managers and the core team**
Your knowledge management efforts will need a core team of managers and co-ordinators to lead the way and drive the changes – to secure budgets and resources, provide direction, oversee and co-ordinate efforts, give encouragement and assistance, and monitor and evaluate progress and value. Again, the nature of your core team will depend largely on the size and structure of your organisation. A large organisation may need a Chief Knowledge Officer (or equivalent) supported by a network of Knowledge Managers and perhaps also Knowledge Co-ordinators, while a smaller organisation may simply need a single Knowledge Manager.
- > **Steering committees and senior supporters**
Management buy-in and support, especially at senior level, is vital to any knowledge management programme. Similarly, the more support you have from the various different functions and departments across the organisation, the better, as this can greatly speed the adoption of knowledge management. Having a steering committee with representatives from various functions can also help you to create better solutions: you get input from a range of perspectives and types of expertise, and can also clearly see the “big picture” across the organisation, allowing you to better prioritise resources and approaches.
- > **Knowledge brokers and champions**
In addition to your core team, there will also be people throughout the organisation whose job it is

(or part of whose job it is) to gather and share knowledge on a day-to-day basis. These people will already exist in most organisations even if there have previously been no deliberate knowledge management efforts. Such people include researchers, information workers, librarians, writers/editors/publishers, website producers, help desk advisers, internal communications people, team secretaries and administrators, etc.; they might be part of a central service such as a library or publications department, or they may be spread throughout the organisation in various departments and functions. Either way, you will need to identify these people and bring them on board, given that they are already acting as “brokers” or “champions” of knowledge and knowledge working.

> Support from outside

Your core team might want to attend some courses or conferences, do some research and reading, and make some contacts in other organisations, to “get up to speed” in knowledge management. Even if your core team comprises people with considerable experience in the field, knowledge management is a rapidly-evolving discipline and so there are always new developments of which they will need to keep abreast. Attendance at events, contacts with knowledge managers in other organisations, journal subscriptions and joining professional membership bodies can all be useful. You may also wish to bring in more specific external support in the form of knowledge management consultants for any projects for which you feel you do not have the required expertise in-house.

Obviously in smaller organisations this infrastructure will be much simpler, although the same principles will still need to be applied, albeit in less formal ways.

Similarly, whatever the size of your organisation, this infrastructure is likely to “thin out” and simplify in the long term, as knowledge management becomes integrated into the organisation and knowledge management practices become part of “the way we do things around here”. As that begins to happen, dedicated knowledge management roles and functions will probably disappear, but this will take some time – it will not happen overnight.

In the meantime, you will need to create, resource and maintain this knowledge management infrastructure to drive and support your knowledge management processes.

5.3 KM Technology

5.3.1 IT and knowledge management

In the early days of knowledge management, there was a strong focus on information technology (IT). As knowledge management became the latest buzzword, technology vendors were quick to spot an opportunity to sell “knowledge management solutions” and many of the companies that led the way in knowledge management were quick to buy – to their cost. Having made significant investments in the latest systems, they then found that people simply did not use them and so the systems ended up being confined to what became known as “the knowledge management graveyard”. These companies learned the hard way that knowledge management is about people, processes and technology – in that order of priority.

That being said, technology is an important enabler of many, if not most, knowledge management initiatives. Technology can support and enable knowledge management in two main ways:

- 1 It can provide the means for people to organise, store and access explicit knowledge and information, such as in electronic libraries or best practices databases.
- 2 It can help to connect people with people so that they can share tacit knowledge, such as through white pages, groupware or video conferencing.

Much of the early focus on technology was driven by an over-focus on explicit knowledge – on “getting things down” and into high-level databases. However, given the current view that up to 80% of an organisation’s knowledge is always going to be in people’s heads, there is a growing interest in technologies that support communication and collaboration between people.

Technology adds value when it reduces the cost, time and effort needed for people to share knowledge and information. However if it is not closely aligned with organisational needs and with people’s ways of working, or if it results in information overload and so people can no longer make sense of it all, then even with the best technology in the world, you will end up right back at square one: people still cannot easily find the knowledge or information they need. The importance of this cannot be overemphasised.

The reality is that technology can only fulfil some of our needs. And how well it fulfils them depends critically on managing the knowledge behind them – content management, assigning knowledge roles etc. There are many tools that can help enable individuals and organisations to be more effective at accessing and sharing their knowledge. How well we exploit these opportunities depends more on good knowledge management than on finding the “best” piece of technology. In other words, technology by itself does not create shared knowledge: it needs to be supported by, and integrated with, relevant people and processes. Tom Davenport, a prominent author on knowledge management, is often quoted as offering the following rule of thumb: your investment in technology in terms of both cost and effort should stay under one third of the total knowledge management effort – otherwise you are going wrong somewhere.

So, what kinds of technology are we talking about? The following is a brief and simply overview, aimed at giving the non-technical manager an overall idea of some of the knowledge-enabling technologies currently available.

5.3.2 Groupware

Groupware is a term for software specifically designed for groups of people, not just individuals. As the name suggests, groupware allows groups of people to share information and to coordinate their activities over a computer network. Examples of popular proprietary groupware packages are Lotus Notes, Novell GroupWise and Microsoft Exchange. Groupware packages are diverse in the functions they offer. Most include a shared database where team members can work on common documents and hold electronic discussions. Some include group schedulers, calendars and/or e-mail. Others focus on real-time meeting support. Combined, these pieces allow team members to work on a single document, discuss ideas online, maintain records, and prioritise and schedule teamwork and meetings. A true groupware package should include several of these functions, not just one.

In recent years, intranets have emerged as cheaper and more open alternatives to proprietary groupware products so many companies are giving up proprietary groupware in favour of intranets.

5.3.3 Intranets

An intranet is simply a private Internet. Internet-type services are installed onto an organisation’s internal computer network which enables it to then provide web pages and related services such as e-mail, discussion boards, access to shared documents and databases, and collaboration tools such as shared calendars and project management tools. An intranet can convey information in many forms, not just web pages but documents, tables, spreadsheets and images; it can host applications and databases. Above all, it provides connectivity that allows people to collaborate, wherever they are located.

Intranets can support knowledge sharing in a variety of ways, including:

- > Ease of access and use: the use of World Wide Web browsers provides a low cost and user-friendly interface to information and applications.
- > Universal access to information: information can be kept on any “server” on the network, and can be accessed from anywhere within the intranet.
- > Connecting people with people: intranets can simplify interaction between people in different locations through applications such as email and discussion boards.
- > Informal networks: publishing information and making contact can be quick and informal on an intranet.
- > Providing a “one stop knowledge shop”: an intranet can provide a single access point for internal information and knowledge, as well as providing “gateways” to the Internet for access to external information resources.

5.3.4 Connecting people with people: collaborative tools

Collaborative tools are simply electronic tools that support communication and collaboration – people working together.

Essentially they take the form of networked computer software that lets different people coordinate their work activities.

There are a number of key considerations and characteristics to bear in mind when looking at collaborative tools. These include:

- > **Time**
Is the collaboration taking place simultaneously (e.g. video conferencing) or at different times (e.g. email)?
- > **Place**
Is the collaboration taking place in the same location or at different locations?
- > **Information richness**
How much and what types of information can be conveyed? For example video conferencing conveys body language and tone of voice, whereas e-mail focuses almost exclusively on the written word and given this lack of context, can be prone to misinterpretation.
- > **Social presence**
How well can the tool help people to connect with each other and form relationships? For example an email has low social presence while a face-to-face meeting has a high social presence.
- > **Technology**
What technology is needed? How comfortable are people with technology? How easy to use is the tool? How much training will people need?

In short, no one tool is ideal for all situations.

Collaborative tools can provide a number of benefits, such as:

- > allowing people to work together in teams, over a network, irrespective of location or time
- > enabling the sharing of tacit knowledge between a wide range of people
- > the ability to access the knowledge of experts wherever they are located
- > savings on meeting costs – travel and subsistence, meeting rooms, etc.

The various tools can be provided as part of a groupware package, over an intranet, or in some cases as standalone tools. Common collaborative tools include the following:

- > **Email**
A simple electronic version of written mail, and undoubtedly the most widely used collaborative tool. Messages are sent via an electronic network and attachments can be added such as copies of documents and presentations. Email can be used between individuals, or to broadcast messages to a wider audience.
- > **Discussion boards**
Discussion boards (also known as message boards, bulletin boards or chat rooms) give people the ability to post and reply to messages in a common area. Sometimes a leader or facilitator will moderate these boards. Their purpose is to provide an “informal meeting place” a bit like a café. People can ask for advice and share information around topics of interest. Discussion boards are often used to support communication within communities of practice.
- > **Video conferencing**
Video conferences can either be done using specialized video facilities, or from people’s desktops using computer software. Video conferencing works well for situations that require a degree of trust and relationship building, for discussing issues and exploring ideas, and in situations where you don’t need a detailed permanent record to be generated automatically. Consideration needs to be given to the quality of the video link, as many of the benefits can be lost through poor quality. Also, be aware that not everyone likes, or feels comfortable with, video conferencing. An alternative is audio (telephone) conferencing, which tends to work best when participants already know each other.
- > **Project support tools**
There are a number of tools that enable work groups and project teams to share documents and exchange messages across different locations in “real time”. For example, when a group is working on a shared document, there needs to be a tool to make the document centrally available, allow people to make changes, synchronise the changes made, and ensure that the most up-to-date version is clearly available. Similarly, remote project teams can take advantage of “electronic whiteboards” to brainstorm together, generate lists of options, draw or map concepts visually to aid understanding, display and analyse data together etc.

> Work flow tools

Work flow tools are developed to model typical processes that take place in organisations. They enable people to work together on shared tasks, with some of the core process knowledge embedded in the design of the work flow software application. An example would be a purchasing or transaction process, starting with the creation of an order and ending with the supply of goods. Where several people and a sequence of documents and processes are involved, automation can help speed up the process and also provide information about what stage the process is at, at any given time.

> E-learning tools

E-learning is a rapidly growing field and uses information technology to deliver learning and training to people electronically at their desktop. There is a wide variety of tools and technologies available to support e-learning, many of which include facilities for learners in different locations to work together on assignments, case studies and projects.

> Virtual working tools

At the highly sophisticated end of the spectrum, technologies are emerging that allow the knowledge and expertise of a person in one location to be directly applied in another location in real time. Such technologies allow knowledge to be not only shared, but applied, remotely. For example, in 2001 a pioneering surgical procedure was tested in which two surgeons in New York operated on a patient in France, using joysticks and voice commands to direct three robotic arms in the operating room. This was the first instance of remote surgery on a human. Similar technologies have already been used quite extensively in fields such as engineering.

5.3.5 Connecting people with information: managing content

Whether you use an intranet or some other form of groupware to network and share documents, applications and collaborative tools across your organisation, you will need processes in place to ensure that users can easily and quickly find the information they need. You need to consider content management. There are three critical aspects of managing content:

> Collecting the content

Including issues such as: where will the content come from; who will collate it; how will they find and evaluate sources to ensure that quality and reliability of content; how will they ensure it meets users' needs both now and in the future, as needs change; how will they weed out out-of-date content; how will you ensure that your content complies with issues such as copyright, legal liability, data protection, and information risk and security?

> Organising the content

How will the content be organised so that people can easily find what they need, when they need it? How will content be classified and indexed, and what terms and language will you use? Will you use taxonomies? A thesaurus?

> Retrieving and using the content

How will people find and access the information they need? What combination of navigation tools will you offer them – menus, maps, search engines? What balance will you strike between “pushing” information to users (e.g. through alerting services) or waiting for users to “pull” information out for themselves (e.g. using search engines)?

Be aware that while there are a number of content management systems and software packages available, an important element is people to manage the content; this function is often best performed by people with a background in librarianship and information management. Some examples of tools and processes used in content management are:

> Taxonomies

A taxonomy is a hierarchical structure for organising a body of knowledge; it gives a framework for understanding and classifying that knowledge – how to group it and how the various groups relate to each other. In content management, the purpose of taxonomy is to organise information so that users can more easily navigate their way through it. Taxonomies can be generated either manually or automatically using a software programme.

> Thesauri

A thesaurus is a list of the various terms and language that are used to describe a body of knowledge, and which specifies the relationship between the terms: antonyms and synonyms,

broader terms and narrower terms, etc. In content management, the aim of a thesaurus is to enable content to be indexed in a variety of ways so that different users who tend to use different terms can still find it.

> Search engines

A search engine is a piece of software that carries out searches for information across multiple sources. Search engines vary widely in their level of sophistication. Some simply allow users to search for documents that contain a specific word or phrase, which can leave users having to sift through great deal of irrelevant information. More advanced search engines allow users to construct more specific searches, enabling them to narrow their search and reduce the amount of irrelevant material retrieved.

> Portals

A portal is a website or a web page that provides your main point of entry into an intranet or the Internet, and which gathers and integrates information from various sources into a single location. Portals are essentially “personalised gateways” – a kind of one-stop-shop for information that is personalised, either to an organisation’s needs or to individual people’s needs.

The purpose is to avoid information overload by providing at each person’s desktop access to the specific information and tools they need to do their job, while filtering out those they don’t need. Think about your computer desktop for example: you will probably have arranged your applications and files in a way that suits you, making the ones that you use most the easiest to find. A portal does the same thing, except through an intranet or the Internet. On the Internet, for example, you may have set up a personalised portal on AOL, Yahoo or Freeserve.

Portals are relatively new in organisations, largely because an effective portal is technically difficult to create, and so the technology is still evolving.

5.3.6 Knowledge creation technologies

As well as technologies designed to enable the sharing of knowledge, there is also an increasing number of tools aimed at supporting the creation of knowledge – helping to generate information and knowledge from data. A few examples are briefly mentioned here for general interest only:

> Data mining

Tools that analyse data in very large databases and look for trends and patterns that can be used to improve organisational processes.

> Information visualization

Computer-supported interactive visual representations of abstract data to help improve understanding.

> Decision trees

Provide a structure in which alternative decisions and the implications of taking those decisions can be displayed and evaluated.

> Root cause analysis

A method or series of actions taken to find out why a particular failure or problem exists, and correcting those causes.

5.3.7 More information

Four articles by David Skyrme Associates available online:

[Intranets: sharing organizational knowledge](#)

Insights, No. 25

[Getting to grips with groupware](#)

Insights, No. 7

[Is content king?](#)

I3 Update No. 59

[Portals: panacea or pig?](#)

I3 Update No. 44

6 MEASURING THE EFFECTS OF KNOWLEDGE MANAGEMENT

6.1 Why measure?

Measurement is undoubtedly the least developed aspect of knowledge management, which is not surprising given the difficulties in defining it let alone measuring it. In fact some practitioners feel that measurement is premature at this stage and that trying to measure knowledge before you fully understand how knowledge is created, shared and used is likely to lead you to focus on the wrong things. Elaborate measurement systems, they say, cannot currently be justified because we simply do not yet know enough about the dynamics and impact of knowledge.

That being said, in practice, few organisations have the luxury of being allocated resources to implement something without being required to demonstrate its value. Without measurable success, enthusiasm and support for knowledge management is unlikely to continue. And without measurable success, you are unlikely to be able to what works and what doesn't and therefore make an informed judgement regarding what to continue doing, and what to adjust.

6.2 What to measure? Common measurement approaches

There are a number of approaches that are increasingly being used to measure the value of, and progress in, knowledge and knowledge management in organisations. Some of the more common approaches are outlined here for the purposes of providing a general overview.

6.2.1 Measuring the impact of knowledge management on the organisation's performance

Given that the whole point of knowledge management is to improve the performance of your organisation and to help it to achieve its objectives, the best and most logical approach is tie-in measurement of knowledge management with your organisation's overall performance measurement systems. This can be done either at an organisational level, or for individual projects and processes.

However, one limitation of this approach is that if knowledge management practices are made an integral part of work, you cannot be sure of the relative contribution of those knowledge management practices to the success of a project or process, versus other factors. In view of this, O'Dell and Grayson, in Chapter 12 of their book "If only we knew what we knew: the transfer of internal knowledge and best practice (1998)" recommend a two-pronged approach that seeks to measure both outcomes and activities.

Measuring outcomes focuses on the extent to which a project or a process achieves its stated objectives. The success of the project or process serves as a proxy measure for the success of the knowledge management practices embedded in it. In other words, knowledge management is seen as an integral tool for improving a project or process, rather than as a separate thing. For example, outcomes might be measured in terms of the reduced cost of a process, improved efficiency, the reduction in time taken to do it, the improved quality of delivery, etc.

Measuring activities then shifts the focus onto the specific knowledge management practices that were applied in the project or process. What were the specific knowledge management activities behind this practice and what was their effect? In measuring activities, you are looking specifically at things like how often users are accessing, contributing to, or using the knowledge resources and practices you have set up. Some of these measures will be quantitative ("hard") measures such as the number and frequency of hits or submissions to an intranet site per employee. However these measures only give part of the picture – they do not tell you why people are doing what they are doing. Hence to complete the picture, you will also need qualitative ("soft") measures by asking people about the attitudes and behaviours behind their activities.

6.2.2 The balanced scorecard

An increasingly popular approach to measuring an organisation's performance, and one that is being widely adopted in knowledge management, is the balanced scorecard. The advantage of this approach in knowledge management terms is that it directly links learning to process performance, which in turn is linked with overall organisational performance. Developed by Kaplan and Norton, the balanced scorecard focuses on linking an organisation's strategy and objectives to measures from four key perspectives: financial, customers, internal

processes, and learning and growth. In contrast to traditional accounting measures, the balanced scorecard shifts the focus from purely financial measures to include three key measures of intangible success factors. These roughly equate to the three components of intellectual capital – namely human capital (learning), structural capital (processes), and customer capital. The four perspectives can be framed as follows:

- 1 **Financial**
How do we look to our “shareholders” (or governing bodies)?
- 2 **Customer**
How do our patients see us? Are we meeting their needs and expectations?
- 3 **Internal processes**
What do we need to do well in order to succeed? What are the critical processes that have the greatest impact on our patients and our financial objectives?
- 4 **Learning and growth**
How can we develop our ability to learn and grow in order to meet our objectives in the above three areas?

This knowledge management, which is about learning and growth, is measured as an integral and yet distinct part of overall organisational performance.

The balanced scorecard approach can be applied to individual initiatives as well as to a whole organisation.

6.2.3 Return on investment (ROI)

Most initiatives that require resources will be expected to show a return in investment – what benefits did we get to justify the costs involved – and knowledge management is usually no exception. The problem is that both the costs and the benefits of knowledge management can be notoriously difficult to pin down. While the costs associated with an investment in information technology can be relatively straightforward to identify, other costs can be less so, such as for projects that involve an amalgam of resources from across the organisation, or those inherent in challenging an organisation’s culture. On the benefits side, how do you measure things like increased knowledge sharing, faster learning or better decision-making?

A number of approaches have been developed for showing financial returns on knowledge assets. Such approaches tend to be rather complex, and therefore are probably more appropriate to organisations that are reasonably advanced in their knowledge management efforts, rather than just starting out.

6.2.4 The knowledge management life cycle

Some organisations measure the progress of their knowledge management activities in terms of their maturity – how far “down the line” they are in implementing knowledge management practices and ways of working. The American Productivity and Quality Center has developed a framework known as Road Map to Knowledge Management Results: Stages of Implementation. The aim is to provide organisations with a map to guide them from getting started right through to “institutionalising” knowledge management – embedding it in the organisation and making it an integral part of the way an organisation works. The map has five stages:

- 1 Get started
- 2 Develop a strategy
- 3 Design and launch a knowledge management initiative
- 4 Expand and support
- 5 Institutionalise knowledge management

There are measures associated with each stage.

6.2.5 Employee surveys

Given the importance of people in knowledge management, employee surveys can be a useful addition to your measurement toolbox. Surveys can be used to assess aspects of organisational culture and the extent to which people’s opinions, attitudes and behaviours are, or are not, changing. Obviously such surveys measure people’s subjective perceptions and these may or may not reflect reality, but in many ways that can be their very benefit, as people’s perceptions will determine their behaviours with respect to knowledge management. In order to be

effective, it is vital that any such surveys are carried out by people with the required expertise, whether that is through in-house capabilities or by hiring external consultants.

6.2.6 Measuring the value of knowledge assets

As well as measuring the progress and value of knowledge management initiatives, organisations are also developing ways to measure the value of their knowledge assets. The traditional balance sheet is increasingly being regarded as an incomplete measure of an organisation's worth, as it does not place a value on intangible assets such as knowledge or intellectual capital. As already mentioned, intellectual capital is commonly regarded as having three components: human capital (the knowledge and skills of people), structural capital (the knowledge inherent in an organisation's processes and systems), and customer capital (customer relationships). There are a number of key models for measuring the value of intellectual capital. Among the best-known are:

- > **The Skandia Navigator and its associated Value Creation Model**
Developed by Swedish financial services company Skandia, this approach uses the metaphor of a house whose roof represents an organisation's financial assets and whose foundations represent innovation and renewal. The model includes a long list of measures, which are organised into five categories, namely: financial, customer, process, renewal and development, and human.
- > **Sveiby's Intangible Assets Monitor**
Developed by knowledge management pioneer [Karl Erik Sveiby](#), the monitor categorises intangible assets into human competence, internal structure and external structure, with further subdivisions into indicators of efficiency and utilisation, stability, and growth and renewal.
- > **Intellectual Capital Services' IC- Index**
Originally developed in Scandinavia and Australia by Johan and Göran Roos, the index identifies four categories of intellectual capital: relationship, human, infrastructure and innovation; it then looks at the relative importance of each, and also at the impact of changes in intellectual capital.
- > **Philip M'Pherson's Inclusive Value Methodology (IVM)**
A model in which users create hierarchies of intangibles to which they assign value ratings according to priorities, then a computer model determines the overall value rating and tests for areas of risk.

6.3 How to measure?

Melissie Clemmons Rumizen outlines the following steps in developing measures, in Chapters 19-22 of her book "The complete idiot's guide to knowledge management (2002)":

6.3.1 Revisit your goals

Your starting point for measuring any knowledge management initiative will be the original goals of that initiative: what is it that you set out to achieve? Developing measures will often lead you to get clearer about how you define your goals in the first place; if your goals are not concrete and clear enough, then measuring your success or progress against them will be difficult. Hence ensure that your goals define clearly what constitutes success in measurable terms.

6.3.2 Know the audience for your measures

In defining success, you will often find that different people have different ideas about what constitute success. Managers who approve the allocation of resources will want to know about the returns on their investment. Users of the knowledge management initiative will want to know how it has benefited them and whether their participation has been worthwhile. Other beneficiaries of the initiative, such as patients, will want to know how they have gained.

6.3.3 Define the measures

Define what exactly you are going to measure, and what measurement approach or approaches you intend to take. Ensure that your measures are:

- > **Valid**
They actually measure what they are intended to measure rather than something else,
- > **Reliable**
They give consistent results
- > **Actionable**
They give information that can be acted upon if necessary.

6.3.4 Decide what data will be collected and how it will be collected

This is a process of “putting the meat on the bones” – spelling out the details: what data will be collected, who will collect it, how, when, where, etc.?

6.3.5 Analysing and communicating the measures

When analysing and presenting the results, be sure to refer back to your original goals and your audience. Aim to present results in a way that answers their questions in a meaningful way, rather than simply presenting facts and figures.

6.3.6 Review your combination of measures

Monitor and evaluate how your measures are working. Developing measures is a process of trial and error – don’t necessarily expect to get it right first time. Similarly, remember that as objectives and situations change over time, so will your measures need to.

Additional pointers emphasised by other practitioners include:

- > Measuring for the sake of measuring is a waste of time – be sure that you are measuring for a specific purpose or purposes.
- > Be sure that some kind of action or decision will be taken as a result of your measures
- > Don’t try to measure everything; instead, focus on what is important. Trying to measure too much not only requires a great deal of work, it also tends to dilute the important issues.
- > If your organisation already has a measurement system in place, then you can use those measures.
- > If your knowledge management initiatives work, then you might assume that this will show up in your organisation’s other performance measures. Of course there is no guarantee that existing measures are good ones so you might like to look into them, but there are two major advantages to “piggy-backing” on existing measures: first, they are already accepted practice in the organisation, and second, they are most likely measuring things that are important to the organisation.

6.3.7 More information

[American Productivity and Quality Center \(APQC\)](#)

Road Map to Knowledge Management Results: Stages of Implementation

[The Balanced Scorecard Collaborative](#)

7 KNOWLEDGE MANAGEMENT GLOSSARY OF TERMS

The glossary (go directly to <http://libraries.nelh.nhs.uk/knowledgemanagement/default.asp?page=GLOSSARY>) is arranged in alphabetical order. Where terms are also known by other names, or where two or more terms are closely related, you can click on links from one to the other.

If there is a term that is not included and you think it should be, if you feel that a better explanation of a term is needed, or if you want to suggest an alternative explanation, please, please [contact us](#).