

Developing and Retaining Organisational Knowledge

by

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Chapter I Executive overview

This is the second report in our research into how organisations are developing a knowledge creating culture. The first phase of our research looked at: the characteristics of knowledge-creating organisations; some of the generic barriers to knowledge sharing, together with different strategies for addressing these; how different organisations have set about developing a knowledge culture, as well as some of the ways to link HR and knowledge management practices.

This current phase of our research has focused on different approaches for developing and retaining organisational knowledge, including the different roles and responsibilities for effective knowledge management. The research approach has again involved a combination of desk-based research, developing organisational cases studies, as well as building insights into different organisational practices through collaborative learning with other knowledge management practitioners.

The case study organisations included in this research report are drawn from diverse business sectors, they include: KPMG, English Nature, the BBC, PPP healthcare, Lewisham Council, as well as a group of doctors working on a collaborative knowledge-building project aimed at building and maintaining their clinical knowledge. Whilst the start-point for the knowledge-building and sharing activities in these organisations was different, some similar themes emerged: the importance of facilitating and supporting learning and change; acknowledging the value of collaborative working; a focus on skills development, as well as the need to take stock and revisit assumptions about effective ways of working in a knowledge business.

Whilst there is still some general scepticism around about knowledge management i.e. that it is just another management fad, this phase of the research has identified some noticeable changes in the level of importance that organisations are placing on knowledge management. First, there has been a marked increase in the number of organisations indicating that knowledge management is a strategic priority for them. Second, HR seems to be taking more of a leading role in knowledge management. Twenty per cent of organisations in Roffey Park's Management Agenda sample indicated that HR, in their organisation, is taking more of a leading role. This contrasts with three per cent in the 2001 Management Agenda sample. This suggests that organisations (possibly HR themselves) are realising that they need to place a greater emphasis on the people side of knowledge management.

Other sources drawn on in this research also suggest that the scene is being set for HR to move more centre stage in the knowledge management arena, taking more of a leading role. There are two things that are steering HR in this direction. One is that the HR function in general is beginning to take on more of a strategic role, through the business partner model. Second there is a growing consensus that what knowledge management is really about is learning and change, an area that maps directly onto HR's core competence.

Over the past three to four years there has been a renewed interest in Social Learning Theory, where learning is seen as being mediated by social relations, rather than it being a solitary activity. Several writers stress that one of the advantages of Social Learning Theory is that it breaks down existing distinctions between formal and informal learning, particularly that of where formal learning being perceived as superior to informal learning. This renewed interest in social learning is now being reflected in the practice introduced in many

organisations for learning in Communities of Practice, either face-to-face, computer mediated, or a combination of these approaches.

Learning in Communities of Practice also has the advantage that it helps build social capital (i.e. “ ... the oil that lubricates the process of learning through interaction” (Kilpatrick, Bell and Falk, 1998)), as well as developing intellectual capital. In large geographically dispersed organisations, this collaborative approach to learning can thus help to create a greater sense of community. In addition, with the emphasis in today’s workplace on managing your own career, social capital is also vital for successful career management.

Even if the scepticism about knowledge management remains, the demands of today’s business world are such that only those organisations that are prepared to try out new ways of working and are capable of learning quickly from their successes and failures will be able to stay one step ahead of their competitors. This requires a knowledge-based approach i.e. a focus on knowledge building and organisational learning (Stonehouse, Pemberton and Barber, 2001).

Key lessons draw out from this phase of the research include:

- Organisations need to strike a balance between adopting a mechanistic knowledge management approach (i.e. top-down, heavily controlled, with a strong emphasis on IT solutions) and an organic knowledge management approach (i.e. based on open and evolving systems with a strong emphasis on encouraging knowledge-building and sharing through the use of collaborative learning practices). Evaluation also needs to form an integral part of an organisation’s knowledge management approach, thus ensuring that the organisation remains alert to new possibilities for developing their knowledge-building capabilities.
- The theory indicates that there are a number of key building blocks in an effective knowledge management approach. These include: Establishing knowledge goals; Knowledge identification; Knowledge acquisition; Knowledge distribution and sharing; Knowledge utilization; Knowledge development; Knowledge retention and Knowledge assessment (Probst, Raub and Romhardt, 2001). However in practice, organisations do not necessarily focus their energies equally in each of these building blocks.
- Knowledge management interventions need to be chosen carefully so that they are appropriate for the size of the organisation, as well as reflecting the organisation’s history and existing areas of expertise. The English Nature case study, for example, shows how an IT solution would not have been a key enabler for facilitating knowledge transfer for them because not all of their employees use IT extensively in their day-to-day work. In addition equal attention needs to be given to the formal and informal practices that facilitate knowledge sharing.
- The way in which an organisation is structured has implications for how knowledge is developed and retained. Whilst decentralised structures can enable more in-depth knowledge to be developed locally there is a danger that, unless carefully managed, this knowledge remains localised, rather than flowing freely across the organisation.
- Building a successful knowledge creating culture requires a collaborative approach between managers, individuals and specialists teams, such as the IT department, Corporate Communications and HR.
- The need to develop and retain specialist knowledge, as well as more generic knowledge, needs to be reflected in an organisation’s knowledge retention plans.

- Building and keeping knowledge up-to-date, as the GP's story in this report shows, is something that all individuals need to plan into their daily life routines.
- Collaborative ways of working such as cross-functional team working, partnership working, learning through volunteering, as well as in communities of practice, all need to become natural ways of working if organisations want to maximise the opportunities for developing and retaining knowledge.
- Although one of the key priorities for organisations, striving to maintain their strategic position, is more likely to be on maintaining a focus on developing specific human capital, the changing psychological contract of employment means that employees are more likely to want to work for employers that are prepared to invest in developing their generic human capital. Organisations will thus need to address individuals' needs to be supported in developing their careers within a broader eco-system (as indicated in the KPMG case study).
- Organisations that want to develop and retain their knowledge assets need to revisit their assumptions about leadership and management. Instead of managers seeing themselves as 'subject experts' they need to develop their role as learning facilitators and knowledge connectors, thus helping to build both intellectual capital and social capital.
- HR can really add value in the knowledge management arena in four key areas: helping to build a learning-centric organisation; developing a focus on capability building and retention; helping the business develop more efficient business processes, as well as facilitating relationship building, both within and outside the organisation.

Chapter 2 The business context for managing knowledge

The most important source of wealth in contemporary society is knowledge and information (Drucker, 1993)

Managing knowledge - today's key business challenge

There is no doubt that knowledge is now a key business asset with information and knowledge representing the primary source of economic value. The percentage of our Gross National Product that comes from knowledge-based businesses is now around fifty percent (OECD, 1999).

George Stonehouse et al (2001) argue that there are three factors that influence why one business outperforms another. These are: competitive positioning, resource or competitive-based positioning and a knowledge-based approach i.e. having a focus on knowledge building and organisational learning.

Operating in a business world where information and knowledge have become the primary source of competitive advantage has resulted in a shift in emphasis from products to processes. As processes fall into the domain of human activity (Castells, 1989), organisations are having to face up to the reality that true real competitive advantage lies in their employees not in other fixed assets, as in the past. It is not surprising then that talent management has become a key business priority. Without effective strategies for building and retaining employee 'know how' organisations do not have a sustainable knowledge management approach.

The demands of the knowledge-based economy, identified in our research, include:

- The only certainty is uncertainty.
- Increased global competition, combined with more knowledgeable and discerning customers.
- New technologies that are increasing the reservoir of what is available to be known – leading to the 'cannot see the wood for the trees' syndrome or, information overload.
- An increasing demand within the workplace for cognitive skills (e.g. problem solving, communication, analysing and interpreting information), as opposed to manual skills, in many business sectors.
- A need for greater flexibility and adaptability.

Other writers (Ahmed et al, 2002) refer to other demands of the knowledge-based economy as being: increasing complexity of products; a growing reservoir of relevant knowledge, both technical and non-technical; as well as shorter product life-cycles, which require faster learning processes.

Survival in today's business world means having to focus on providing 'just in time' service delivery. As Wayne Brockbank (1977) points out the key competence of the firm is "... *not what a firm does based on what is known, but is, rather a firm having a culture which encourages flexibility, change, learning, credibility and adaptability to customers*".

Broadbent suggests that to achieve the level of flexibility needed to meet the ever-changing and more demanding needs of customers, organisations need to adopt more flexible ways of working. Certainly the demand for, and the supply of, flexible work options are on the increase (DfEE Labour Market & Skills Trends, 2001).

Paradoxically, a combination of new organisational forms and employment models, based around the use of different flexible working practices, is shortening the timescales that organisations have to capitalise on their employees' 'know how'. It is not surprising therefore that retaining talent, which if we unpack this, is really about retaining organisational 'know how', has become one of the top strategic issues for organisations.

Thus when considering structural change, such as the introduction of flexible working practices, organisations also need to consider and plan for the impact that this might have on their ability to manage their knowledge. Whilst having mobile workers may make it easier to deliver a more responsive service to customers, unless properly managed this could have an adverse affect on an organisation's knowledge sharing capabilities. Whilst the IT department will no doubt be able to offer an IT solution to help address this dilemma, it is important not to underestimate the human factor of knowledge sharing i.e. how knowledge flows through social networks and through dialogue. Hence the growing importance of building and maintaining good social networks, where there is an ongoing dialogue, preferably face-to-face.

Are organisations taking knowledge management seriously?

One of the areas that we have been tracking in our research into how organisations are building a knowledge-creating culture is the extent to which organisations are treating knowledge management as a strategic priority. In the 2002 Roffey Park Management Agenda findings almost half of the sample (49%) reported that knowledge management is a key business priority within their organisation. This represents a strong increase from the 32% in the 2001 Roffey Park Management Agenda findings, suggesting that businesses are taking knowledge management more seriously.

Of those organisations that indicated that knowledge management is not a key business priority for them, 67% reported that this was due to a lack of understanding of the benefits of knowledge management and 45% reported that this was because there are too many other change initiatives within their organisation. When conducting this research I have found that different functional teams have a different perspective on what knowledge management is about and also on what the strategic focus should be.

The main drivers for introducing knowledge management, identified in the Roffey Park Management Agenda, include to improve internal efficiency (25%) and to share good practice (25%); something that is expected to lead to enhanced profitability (16%) and better customer service (14%).

Who is driving knowledge management within organisations?

The 2002 Roffey Park Management Agenda findings indicate that in a number of organisations (24%) the overall responsibility for knowledge management rests at senior level - with a specific Executive Director. However below this, those driving knowledge

management are not the business strategists, or human resources, but the IT department. As with the 2001 Management Agenda findings, a number of respondents (17%) reported that knowledge management is seen as being primarily an IT issue.

Yet the systems that the IT function deliver is only part of the overall knowledge management solution, providing a means for managing an organisation's 'know of', or 'know about', and 'know who'. Managing other forms of knowledge, such as 'know how' (i.e. tacit knowledge), requires a greater focus on human systems and processes.

However there is a glimmer of hope, the 2002 Roffey Park Management Agenda findings indicate a substantial increase in organisations where HR are taking more of a leading role in knowledge management (20% compared to 3% last year). This suggests that organisations (possibly HR practitioners themselves) are realising that they need to place a greater emphasis on the people aspects of knowledge management. Hence the spotlight is turning on the people management practices that enable the organisation to build a knowledge-creating culture.

Chapter 3 **Breaking down the knowledge management task**

Clarifying what knowledge needs managing

One of the biggest difficulties that organisations still seem to be struggling with is being able to bound, and give clarity, to their knowledge management approach, as well as giving sufficient priority to the different the type(s) of knowledge that need managing.

The 2001 Management Agenda findings show that in the majority of participating organisations there is no working definition of knowledge management, or if there is, respondents are not aware of it. In some organisations knowledge management is seen as being concerned with the development of technical skills and the use of IT systems such as e-mail, Internet and Intranets. However other respondents suggested that in their organisations knowledge management is associated with: global and cultural awareness; making access to information easier; avoiding reinventing the wheel and the collection, management and dissemination of both explicit and implicit (tacit) knowledge.

Another difficulty identified in this research is that many knowledge management practitioners themselves do not find the knowledge management label particularly helpful. However, they too are struggling to come up with a suitable alternative label. Despite these difficulties, there does seem to be some distinct areas of knowledge that need managing, these include:

Know of, or know about

This is often referred to as Operational Level knowledge i.e. knowledge that is used as part of individuals' day-to-day work. In a retail environment, Operational Level knowledge might include awareness of the current week's special offers, new promotions, store layout changes etc. In a legal environment Operational Level knowledge might include changes in legislation relating to employment law.

This type of knowledge lends itself to being codified and is thus more readily accessible through intranet systems, or transmitted via mass communication techniques (e.g. through email, memos).

Know how

This again is often referred to as Operational Level knowledge. However, the type of knowledge that is being referred to here is tacit knowledge i.e. our accumulated experience of how things work and also how things get done. It is the type of knowledge that gets called upon when problem solving and decision-making. It is highly contextualised and thus more difficult to codify.

Accessing 'Know how' isn't something that can always easily be extracted through the use of interviewing techniques. This was an important discovery made by the Xerox Corporation when researching how to design information systems to support the way people really work (Seely Brown, 1998). The initial stage of the Xerox research involved interviewing certain groups of employees about how they went about their day-to-day jobs. When clerks working in the organisation's accountants department were interviewed about their jobs what they described in the interviews matched the information in their job description.

However when these same clerks were observed at work by anthropologists what was discovered was a very different picture of their jobs from that built up in the interviews. What the anthropologists observed was that whilst the clerks referred to formal procedures as they went about their work, in practice they also had to improvise in their day-to-day work activities in order to get the job done. What the researchers concluded was that employees use formal procedures as a way of understanding what needs to be done, rather than to identify the steps that need to be taken to get from A to B. Instead the clerks drew on 'workarounds' i.e. informal steps, which were undocumented and which managers were often unaware of.

Know why

In the complex and ever-changing business world that we operate in today employees need to be more strategically aware of where their organisation is going. This is important for two reasons. One is to ensure that the decisions that individuals make as part of their day-to-day jobs, are consistent with the overall strategic direction. The second reason is so that they can understand their own role and contribution to the organisation's strategic goals.

The findings from the first phase of this research highlighted the importance of senior managers making time to discuss strategic decisions with employees, as well as remaining in touch with the difficulties that they experience in implementing strategic decisions.

Know who

As much of an organisation's knowledge resides within individuals' heads, knowledge of who is who, both within and outside the organisation, and what knowledge can be unlocked is critical. The ability to build and maintain social networks, as we shall see later in this report, has become one of the critical knowledge-building competencies.

In any organisation it is important to have this taxonomy of knowledge in mind when developing policies and practices for managing knowledge. Without this organisations may focus their energies, and other resources, on developing one particular type of knowledge, leaving themselves vulnerable in other areas.

Evolutionary stages in the knowledge management journey

As well as giving consideration to different types of knowledge that need managing, organisations seem to be faced with other choices and dilemmas with regard to their overall knowledge management approach. Ahmed et al (2002) suggest that there are four evolutionary stages in an organisation's knowledge management approach:

Reactive knowledge management - this is characterized by a narrow technical focus, typically as a reactive response to a specific external force.

Mechanistic knowledge management – this is characterized by a strong emphasis on IT solutions and knowledge management practices that tend to be very top-down and prescriptive.

Organic knowledge management - this is characterized by an emphasis on open and evolving structures and processes where there is a strong emphasis on the people aspects, including encouraging communities of practice and the use of support systems to reinforce knowledge sharing.

Adaptive knowledge management – the adaptive knowledge management stage builds on the practices developed under the organic management approach, but here the structures are even more open and permeable. These characteristics, according to Ahmed et al, lead to an environment that is more open to experimentation: something that can enhance an organisation's ability to adapt.

Whilst Ahmed et al suggest that these are evolutionary stages, with organisations progressing from one stage to the next over time, the findings from some of our case study organisations suggest that their model does not necessarily reflect organisational practice. The BBC case study, later in this report, shows how a more organic knowledge management approach was taken, largely influenced by the leadership style of those involved in the organisation's knowledge management initiatives. Thus instead of initiating knowledge management projects as major Organisational Development initiatives, the projects were kept more low key with interest being generated through personal networking and referral. A similar personal networking approach was adopted within English Nature as this was felt to be more appropriate for the organisation's existing culture.

Essential building blocks for managing knowledge

Probst, Raub and Romhardt (2000) argue that eight elements form the building blocks of an effective knowledge management approach:

Knowledge goals

Probst et al argue that organisations need to include a small number of knowledge goals as part of their overall business strategy in order to give direction and clarity to their knowledge management approach and practices. Without these strategic knowledge goals defined by the senior management team, knowledge management interventions at the operational level may lack direction and focus.

Knowledge goals help to provide clarity about the overall skills and competencies that an organisation needs to develop and at what levels, and also how best to develop these. Having identified the organisation's core competencies, decisions can then be made about whether to outsource those parts of the business that are not part of the organisation's core competence, thus freeing resources to develop its core competence.

Knowledge identification

Knowledge identification involves mapping the organisation's knowledge environment, both externally and internally. In practical terms this means addressing the questions:

What type(s) of knowledge is important for your business?

Where is it located? How accessible is it? Where are the gaps and areas of duplication?

Who is good at locating knowledge sources?

Knowledge acquisition

Knowledge acquisition is concerned with how and where an organisation acquires its knowledge. Much of an organisation's knowledge is acquired from external sources (e.g. customers, suppliers, strategic partners). Some key questions for organisations to consider include:

What priority is given to knowledge acquisition activities?

How do you acquire knowledge? How does your approach compare with that of your competitors?

How open are you to developing joint ventures, or learning from the experience of outsiders?

Knowledge distribution and sharing

Probst et al argue that the sharing of knowledge within an organisation is vital for turning isolated information and experience into something that is of benefit to the organisation as a whole. This requires addressing the questions:

Who needs to know what, or be able to do what?

What good practices already exist for distributing 'know of' and how can you extend these?

What good practices already exist within the organisation for sharing 'know how' and how can these be replicated or adapted?

What practices are in place for communicating 'know why'?

Knowledge utilization and reuse

Whilst creating new knowledge is obviously important, one of the issues that many organisations face is ensuring that existing 'know how' is fully utilized. For managers this means ensuring that operational practices allow for existing 'know how' to be captured and utilized as part of daily operational routines and that knowledge reuse is recognised and rewarded alongside knowledge acquisition and creation.

Knowledge development

Knowledge development, according to Probst et al, complements the task of knowledge acquisition. Its focus is on developing new skills, products, better ideas, as well as more efficient processes. For organisations this means addressing the questions:

How clear are you about the capabilities that are most important for the organisation's strategic direction?

Will you invest equally in what Calder and McCollum (1998) refer to as general human capital (i.e. skills and knowledge which enhance employees' productivity, regardless of where they are employed) and specific human capital (i.e. skills and knowledge which can only be applied within the current employment environment)?

How much do you encourage and support employees to engage in activities outside the organisation that can lead to knowledge development?

What is your attitude to risk? Are you 'early adopters' or 'late adopters' of new approaches and/or ways of working?

Knowledge retention

Given the amount of change within business today an important, but often overlooked, element of an organisation's knowledge management approach is that of knowledge retention. There are a number of dimensions to knowledge retention: retention of key knowledge assets/players; retention of knowledge following organisational restructuring and retention of knowledge in merger situations. Some important questions for organisations to consider include:

What type of knowledge does your organisation need to retain and over what timescale?

How do you estimate the life-span of different types of knowledge?

What frameworks do you have in place for passing on 'know how' within individual teams, as well as across departmental boundaries?

How do you know whether you are preserving your most vulnerable knowledge assets?

Are responsibilities for knowledge retention clearly defined? Where does this responsibility rest?

What contingency plans do you have in place should your organisation suffer a significant loss of 'know how' at a particular point in time?

Do you need to create new roles to facilitate and focus on knowledge retention?

Evaluation

The final element of the building blocks of an effective knowledge management approach is that of evaluation, or what Probst et al refer to as knowledge assessment. They see knowledge assessment as providing valuable data for the strategic control of an organisation's knowledge management projects.

In the knowledge economy we may need to reframe our view of what we understand by evaluation. In traditional evaluation models, evaluation is seen as a proving process, however a more enlightened view is one where evaluation is perceived as a valuable source of learning in its own right (Evans, 2001). For organisations this requires paying attention to questions such as:

How do you know how well you are doing on your knowledge management journey?

What have been your key successes and failures and why?

What overall learning is occurring? What is happening to that learning?

Where should you focus your energies and resources going forward?

The next three chapters include approaches drawn from our case study organisations for acquiring, sharing, developing and retaining knowledge. They provide insights into how these case study organisations, drawn from different business sectors, are addressing some of the questions raised in this chapter.

What these case studies also illustrate is some of the difficulties encountered between the theory and practice of knowledge management. For example, whilst Probst et al argue that it is important for businesses to include a small number of knowledge management goals in their overall business strategy, this is not always where the knowledge management journey within organisations starts. Sometimes the journey starts with localised knowledge management activities that, once others in the organisation start to see the benefits, then become linked to broader strategic aims. In addition, these case studies also illustrate how often organisations are doing knowledge management but they are not necessarily labelling it as such.

Chapter 4 Case studies in acquiring and building organisational knowledge

The previous chapter set out the key building blocks in an effective knowledge management approach. As the previous chapter indicated these building blocks come from giving consideration to the following questions:

- As an organisation how should we set about building 'know how'?
- How do we ensure that 'know how' is shared?
- How do we ensure that 'know how' is re-used?
- How should we develop our 'know how'?
- How do we retain our 'know how'?

This chapter considers the cultural values that characterise knowledge-creating organisations and how these inform organisational practice. It contains case studies of organisations that are developing their 'know how' through collaborative and partnership working.

Building organisational 'know how'

An organisation's ability to build/acquire 'know how' is influenced by its cultural values. The initial phase of our research identified a number of values that characterise knowledge-creating organisations. These include:

- *Openness* i.e. to information exchanges, both in and outside the organisation, as well as in questioning and challenging existing organisational practices.
- *Trust and integrity*. Without this individuals will be less willing to share their knowledge with others.
- *Respect for individual contributions*. This goes hand-in-hand with the value of trust, particularly in teams where there is a high degree of creativity, reflecting the process by which creative ideas are developed.
- *Tolerance of failure*. Without this individuals will be unwilling to experiment and take risks – behaviours that are crucial for building 'know how'.
- *Generosity and reciprocity*. Rather than having to specifically reward knowledge-sharing, individuals willingly share their knowledge with others based on the understanding that this will be reciprocated.
- *Collaborative and partnership working*. This is based on the assumption that collaborative working will be more knowledge enhancing. One of the core values within BG, for example, is Partnership, which is described as "... the sharing of information, knowledge, experience and skills both within the Group and, where appropriate, externally."

Of course value statements alone will not necessarily lead to organisational change: these values need to become embedded in day-to-day practice. For this to happen organisations need to clearly define the behaviours that they are looking for to bring their defined values alive, so that these inform day-to-day practice. An example of how one of our case study

organisations, KPMG, is bringing about cultural change is given in the next chapter. The UK firm has taken the firm's global values and produced a Values Charter to explain what these values mean in terms of expected behaviours. The firm's development practices and assessment processes also reflect the Values Charter.

When it comes to building organisational 'know how' how might the value of openness affect an organisation's ability to build knowledge? Reflect for a moment on the way projects get done in your own organisation. No doubt you have a project management handbook that sets out the steps that should be followed for project work. Typically these steps include: Requirements Analysis, Design, Build, Test, Implementation and Post-Implementation Review.

But where does 'intelligence gathering', or 'experimentation', fit into your project life-cycle? At what point are teams encouraged to gather intelligence? Are they encouraged to cast their net wide i.e. gather intelligence both from within and outside the organisation? To what extent is your organisation open to learning from the experience of other organisations, even where there may not seem a natural synergy?

Would your organisation be prepared to send someone from your product design team to work alongside an expert in a different business sector in order to facilitate cross-learning? This is exactly the approach that Matsushita took when they were designing a new home bread-making machine (Nonaka, 1998). When the product developers were experiencing difficulties getting the machine to knead the dough in the way that they wanted, a member of the design team went to work alongside an expert bread-maker in a top international hotel. After observing how this expert bread-maker set about kneading dough, the individual was able to transfer this knowledge to the design of the home bread-making machine.

The next case study continues the theme of openness to learning from external sources, but with a slightly different focus, that of building 'know how' through strategic partnering.

Case study: Acquiring and building 'know how' through strategic partnering.

Like many local authorities Lewisham council is undergoing significant change. The Modernising Government agenda means local authorities are having to radically re-think how they can deliver public services to local communities in a more timely, cost effective and responsive way.

Lewisham rose to the challenge of the Modernising Government agenda by initiating a Best Value review (known as Citizen First) of its entire customer interface with the aim of identifying how to re-engineer this to better serve the needs of local citizens.

The strategic decisions taken by the Chair of Citizen First, with regard to how the review was to be carried out, had significant benefits from a knowledge management perspective.

First, the decision to operate the review as a Select Committee, taking in evidence from wide-ranging sources (i.e. customers, other service providers, as well as local businesses), meant that broader insights could be gained into what existing Council services were currently working well, as well as where there was scope for improvement.

Second, the decision to invite experts from outside the Council to sit on the review panel, to work in partnership with elected members, meant that the council were able to tap into

specialist knowledge in the areas of: managing change, implementing a customer-focused service culture, as well as the technological considerations associated with implementing a customer-focused service strategy.

Having a number of independent experts working alongside elected members on the review panel, led to a way of working whereby assumptions about the way in which Council services have traditionally been delivered were questioned and challenged.

The lessons learnt from this partnership working approach, detailed in the final Citizen First review report, included:

- The process had enabled individual panel members to bring in their own experiences, as well as capturing the abilities and experiences of officers and people from outside the organisation.
- It had provided a check on internal assumptions and practices by providing opportunities to compare Lewisham with other service providers.
- It had provided a new model of partnership working which had avoided the passivity and other 'baggage' traditionally encountered in Council committees.
- It had highlighted the importance of setting reviews, like Citizen First, into a broader strategic context i.e. the organisation's overall situation and future direction.
- The way in which the review meetings were organised had enabled them to be fun, as well as productive – a feature that should be preserved for this way of working in the future.
- In addition there were mutual learning benefits. External panel members commented on how it had provided them with an opportunity to gain a better understanding of the realities of pursuing the Modernising Government agenda. Something that was of particular value to those working in organisations that are suppliers of services to local authorities.

Continuing the theme of partnership working, albeit on a smaller scale, the next case study sets out the benefits of collaborative working and how this can lead to the building of professional knowledge in a time-effective way.

Case study: The GP's story – A collaborative approach to knowledge building

Jim McMorran is a GP based in Coventry. He qualified as a doctor in the mid 1990s from Oxford Medical School. During his time as a medical student Jim and six fellow students (one of whom was his brother) established a routine of writing up and sharing their clinical notes with each other. As Jim and his fellow students also had a strong interest in Information Technology (IT) they looked for ways in which they could apply their IT expertise and at the same time make the task of building their clinical knowledge easier.

Together Jim and his fellow students designed and developed a relationship database system. The content of this initial database was based on their lecture notes, as well as information located from references suggested during lectures. But what evolved were the beginnings of a shared knowledge resource.

As the database grew it became a sought after reference point for other medical students. Initially, access to other medical students was provided locally through the Cairns Library in the Oxford Clinical School. Wider access was later made possible through a rudimentary version of the database, published by Butterworth Heinemann in the mid-1990s. It was this version that was awarded the prestigious John Perry Prize, by the Primary Care Specialist Group of the British Computer Society.

Now qualified doctors the originators have further developed this initial rudimentary database into a product known as GP notebook (see www.gpnotebook.co.uk), which other professionals working within the primary healthcare profession can access via the internet. GPnotebook provides a source of concise practical clinical information, with an easy to use rapid indexing system, in the style of a pocket book. The content of GPnotebook is aimed at UK primary healthcare physicians. However, as it is also recognised as being a useful resource for other healthcare professionals, it is now included as a resource on the National Electronic Library of Health.

The database has been designed to allow rapid access to information specific to a user's query without the user having to trawl through a vast list of references. For practitioners, GPnotebook acts as an aide-memoire to different clinical conditions i.e. the symptoms, underlying causes and sources of treatment. In addition to providing a clinical reference, GPnotebook acts as a useful tool for clinical governance and continuing professional development.

Maintaining the GPnotebook system enables Jim and his former fellow students (who now work either as GPs, Specialist Registrars, or in Clinical Research) to work in a collaborative way to keep their professional knowledge up-to-date. Each member of the team takes responsibility for reading and summarising a set number of medical journals each month. These summaries are then added into the GPnotebook system and cross-referenced with existing information.

This group of clinicians have demonstrated how partnership/collaborative working has enhanced their own professional development, as well as making their jobs much easier - they now have easier and faster access to the most up-to-date clinical information when treating patients.

Whilst the benefits of this collaborative approach to knowledge building are clear, it does have its downsides. Each member of the group invests a considerable amount of their own time on this activity. Collectively they spend around 40 hours a week, either in the evenings or at weekends, reading journals, summarising and updating the database - a time commitment which they have had to negotiate with their families.

Trust has been paramount to the continuing success of this knowledge building activity. Reading and summarising professional articles is a skill in its own right, a skill that each of the group members has had to develop. As Jim and his colleagues have known each other for several years, they have learnt to respect each other's professional judgement. However, now that the system is becoming more widely utilised the information published in GPnotebook is peer-reviewed and cross-referenced (thus making it evidence-based). These changes were felt important to ensure the credibility of the information source.

Reflecting on their experience of developing GPnotebook, Jim and his fellow clinicians feel that keeping the GPnotebook system up-to-date has become a backdrop to their lives and the personal learning has been enormous:

“We have all learnt a lot about medicine, but more than that we have learnt to work as a team. We have had fascinating insights into the world of online commerce and the business of publishing. But without doubt the most satisfying part of the work is that we can now share the fruits of our labour with thousands of people around the world.”

Key learning from this case study:

- It provides a good example of an organic approach to knowledge development. The group were self-forming. They came together with a common interest and a common goal – to build, share and grow their clinical knowledge.
- Supporting self-forming and self-regulating groups is one way of helping overcome some of the trust issues associated with knowledge building.
- Knowledge building activities need to map directly on to individuals’ jobs, thus addressing real operational needs.
- Collaborative working enables individuals to enhance their own knowledge, as well as that of colleagues, in a time-effective way.
- Sharing the overhead of keeping professional knowledge up-to-date can help overcome the ‘information overload syndrome’.
- Building and keeping knowledge up-to-date is something that individuals need to plan into their daily life routines.

Chapter 5 Case studies in surfacing, sharing and re using knowledge

This chapter contrasts practices in two case study organisations for capturing and sharing organisational 'know how'. Each of the case study organisations has taken a similar knowledge management approach in so far as neither has initiated a large-scale corporate-wide initiative, with interventions being more localised. However, their approaches for capturing and sharing 'know how' are different, reflecting their different business contexts and needs.

The first case study is from English Nature who have been experimenting with Storytelling as a tool for surfacing and sharing organisational knowledge. Storytelling was chosen as a knowledge management tool for several reasons. First, Information and Communications Technology (ICT) isn't a key tool that all of its employees use as part of their day-to-day work. Second, the nature of the work that the organisation does, means that it already has previous experience of using oral history techniques, particularly amongst its local conservation teams. Third, the organisation had an opportunity to participate in a collaborative learning venture in which it traded its knowledge on ecology, in return for knowledge about structured Storytelling techniques.

In contrast, the PPP healthcare case study shows how the intranet has played an important role in the organisation's knowledge management approach. Whilst the initial focus of the intranet was as a tool to enhance customer service, its main strategic purpose was to enhance communications across the organisation, thus providing a knowledge-sharing tool that cuts across functional boundaries. However, the introduction of the intranet has acted as a springboard for more localised knowledge-sharing practices.

Case study: Surfacing organisational knowledge through the use of storytelling - insights from English Nature

English Nature is the Government agency that champions the conservation of wildlife and natural features throughout England. It was set up in 1990 when the Nature Conservancy Council, which had been responsible for conservation in England, Scotland and Wales, was reorganised. It is governed by a Council, which is appointed by the Secretary of State for the Department of the Environment, Food and Rural Affairs (DEFRA).

English Nature employs around 800 staff. Two thirds of these are based in local teams, of which there are twenty-two in total. These teams are effectively small conservation communities, who work in partnership with local communities and other agencies on wildlife and the natural environment. Being locally based means that each conservation team is able to develop first-hand knowledge about conservation issues and needs within their geographical area. These local conservation teams are helped by a number of support teams (e.g. Information Technology, Finance, and Uplands and Lowlands habitat specialists) based at English Nature's Headquarters in Peterborough.

Knowledge management challenges

A large proportion of the people who join English Nature are passionate about wildlife and conservation. Most staff join as graduates and go on to develop a long service record within the organisation. Currently there are pockets of staff in the same age cohort (50+) who will all potentially retire around the same time.

The organisation has a history, documented in recently unearthed oral history records, of apprenticeship schemes whereby novices learnt about conservation by working alongside experienced conservation officers.

Unlike in other organisations, ICT is not one of the main tools that conservation officers, working in the local teams, use as part of their day-to-day work. Thus from a knowledge management perspective ICT wasn't perceived as being one of the main enablers for facilitating knowledge sharing, as is often the case in other organisations. However, the organisation does have a limited experience of using oral history techniques and isolated experiences of what they now refer to as campfire storytelling, amongst its local conservation teams. It was felt that this expertise, which is currently much under-utilised, has potential to be further developed.

Earlier experiences of oral history projects

The experience within the organisation in the use of oral history techniques is something that has only recently come to light within Head Office. Over the years several oral history projects have been conducted by local teams. As part of the organisation's Millennium celebrations, for example, the Grantham team carried out an oral history project that resulted in the publication of the booklet - *The Sands of Time* - which documents the history of the Natural Nature Reserve in Lincolnshire which they part-own and help to manage. Fifty-one local people were interviewed as part of this project to gain insights into the history of the area and the relationship between people and the reserve, going back over a period of forty years.

From a knowledge management perspective key insights have been gained from this oral history project. For example, over this forty-year timeframe, two very similar engineering projects had been carried out on the reserve, each with the same aim (i.e. to straighten out a meandering stretch of the river) and each of these projects had been equally unsuccessful as the tide washed their efforts away. This 'repeated mistake' only came to light as a result of the oral history project.

An earlier oral history project involved gathering employees' thoughts about the restructuring of the Nature Conservancy Council. This piece of research focused on questions such as: How did staff feel about the restructure? What were their favourable memories of working for the NCC? What had prompted them to follow a career in conservation? How do they see the role of English Nature? Unfortunately the very readable and culture packed information gathered from this piece of research, was never published due to political sensitivities at the time. Thus the insights gained from this piece of work are not widely known within the organisation.

More recent experiences of applying Storytelling techniques

The interest in developing Storytelling as a Knowledge Management tool stemmed from a partnership arrangement initiated three years ago by Dave Snowden of IBM's Institute of Knowledge Management. The partnership was perceived as being a mutual learning opportunity in which IBM could learn about the management of ecosystems from English Nature (something that is perceived as providing important insights for managing a

'knowledge ecology' within an organisation) and English Nature could learn about the principles of Knowledge Management, communities of practice and how to use the Storytelling tools being developed within IBM.

The use of Storytelling as a Knowledge Management tool is being championed by Ron Donaldson, the acting Information Services manager. He has carried out a number of Storytelling projects. These fall into two main areas:

1. Lessons learnt reviews

Two key lessons learnt projects have been completed using IBM's Storytelling techniques. One is of an office relocation project within Head Office and the other is of a Public Inquiry in which English Nature were involved.

One of the main lessons learnt from the office relocation storytelling project was that, despite the fact that a lot of effort had gone into planning the physical office layout changes and the logistics of the office move, the human factor had not been given sufficient attention (i.e. how staff felt about the office move and their work environment subsequent to the move). The 'camp fire tale' following the office move review, revealed that staff felt that their personal needs had been ignored as a result of the office reorganisation as they had not all been co-located with existing work colleagues in the new office layout. In addition some staff were no longer co-located with the filing cabinets (which they require regular access to) and the support staff with whom they have regular contact. This compounded the feeling of communities being broken up.

The Public Inquiry storytelling project revealed some important insights into how the project team, set up to represent English Nature, had been formed (i.e. the team selection process), how the team organised themselves for the task they had to do and also how they identified the knowledge gaps within the team and how they then filled those gaps. It also detailed valuable insights into the sensitive issues faced by the team and how the team resolved these.

The material gathered from this particular Storytelling project includes many previously unrecorded tips and techniques which have provided fruitful learning material that could be used as a resource on the organisations' media and public enquiry training courses.

2. Identifying Communities of Practice

This particular Storytelling project surfaced both formal and informal communities in place within the organisation. It has also provided some useful insights into the implications and opportunities for the organisation's overall knowledge base from different community structures.

One of the informal communities identified during the project was the Staff Canteen Community within Headquarters. This central restaurant area is where much of the day-to-day business is conducted. At coffee breaks many of the conversations are knowledge-building exchanges rather than discussions about what people watched on the television the previous evening. These discussions often develop into impromptu project meetings.

However, the physical space where this informal community meets is constantly under threat as the organisation grows in size. As the organisation expands there is pressure to convert restaurant space into office space, as was the case during the most recent office reorganisation.

In addition to this informal community, a number of formal learning communities grouped around particular areas of specialist scientific knowledge were identified. The way in which three of these communities of practice are structured and managed was found to be of particular interest.

The Woodlands Community

The Woodlands Community is led by a recognised woodlands' expert. Within this community the knowledge flow tends to be uni-directional (i.e. knowledge flows from the community leader to specialists in the local teams). The knowledge flow/exchanges between specialists within local teams was found to be minimal.

From an organisational perspective one of the advantages of this community structure is that it is easy to identify a woodlands' expert who is able to speak knowledgeably and with authority on behalf of English Nature to external bodies. However, one of the downsides of this community structure is that local woodland experts (like shoots around a mature tree) can live in the shadow of the community leader. This has implications for the organisation's overall knowledge succession planning, as well as individuals' career development.

The Botanical Community

The Botanical Community is facilitated (as opposed to led) by a community leader with a general science background, rather than someone who is a recognised specialist in botany. In this community the knowledge flow was found to be more multi-directional – between the community leader and community members. In addition there was found to be more interaction and knowledge exchanges between community members. This is something that is actively encouraged by the community leader.

Although the way in which this particular community is structured and managed enables local conservation officers to enhance their personal knowledge, it generates a problem for the organisation as a whole because it is more difficult to quickly identify a subject expert to represent the organisation to external bodies when needed.

The Freshwater Community

The leader of the Freshwater Community is different in that this was an external appointment. The knowledge flow within this community group is again more multi-directional, with knowledge flowing both ways between the community leader and experts within the local teams.

Appointing someone from outside the organisation into this role has had some unanticipated benefits. In particular it has opened up a new knowledge source through the previous contacts that the community leader already had with external organisations. This surfaces the importance of recognising already mature relationships during recruitment.

As the acting Information Services manager pointed out, it is difficult to make an overall judgement as to which of these community structures is more effective from an overall knowledge management perspective. Each structure has advantages and disadvantages for the organisation as a whole, and for individuals.

The organisation needs to have experts who can be readily identified to speak knowledgeable on different aspects of conservation to external bodies in order to maintain its reputation and authority. The way in which the Woodlands Community and the Freshwater Community groups are structured makes this easier from an organisational perspective. However, the way in which the Botanical Community group is managed has the potential for a number of subject experts to be developed in parallel and perhaps a greater than average level of common knowledge.

Through this particular Storytelling project the organisation now has practical examples of the outcomes of different leadership approaches that could be used as learning materials in both internal and external leadership development programmes.

Organisational learning that emerged from the Storytelling projects

The Storytelling project that led to the discovery of how different communities of practice are structured and managed has surfaced some important questions for the organisation, these include:

- Where should the responsibilities for knowledge succession planning sit? What should the role of the centre be? What role should local teams play? What role should recognised experts play in identifying and developing their successor?
- What is the best way to develop local conservation officers so that they develop the relevant knowledge and skills needed to be capable of leading a Community of Practice in the future?
- Should local teams be expected to actively exchange knowledge with other local teams, as well as with Head Office? How should this best be facilitated given that ICT isn't one of the essential tools that conservation officers, within local teams, use as part of their daily work?
- How can technical specialists be helped to see the value of their 'know how' for the organisation as a whole?

These questions could equally apply to other organisations that have a similar structural set up to that of English Nature. In particular they highlight the value-add that central teams can play in facilitating and co-ordinating the knowledge succession planning process, and in developing processes for facilitating knowledge sharing across different teams/departments.

In the PPP healthcare case study that follows, the term 'knowledge management' isn't something that is used widely, although the organisation recognises the critical importance of knowledge to its business. The main focus of the organisation's knowledge management initiatives to date has been on developing the intranet as a key communication's tool, thus helping staff do their jobs more efficiently, particularly those in the Customer Service Department who are the biggest user-group, as well as ensuring that existing knowledge across the AXA group is reused.

Case study: An emergent approach to knowledge management – the intranet as a springboard for knowledge enhancing practices within PPP healthcare

PPP healthcare has been helping people to access private healthcare for over 60 years. The company dates from 1940 when it was known as the London Association for Hospital Services. Today it forms the UK healthcare arm of AXA – one of the world's leading insurance and asset management companies. Its principal businesses are medical insurance (PPP healthcare covers around two million people), dental care funding (through Denplan) and occupational health, health information and employee assistance services (through AXA Assistance).

Knowledge management approach

PPP healthcare's approach to knowledge management is best described as emergent, rather than involving a large-scale corporate wide project approach. The term 'knowledge management' isn't something that is currently used widely within the business. However, the organisation has introduced a number of discrete, but related, projects that are helping to build and reinforce a knowledge culture with a strong emphasis on knowledge reuse, as much as on knowledge creation.

At a strategic level, knowledge management is perceived as "... everything we need to know in order to manage the business effectively and efficiently." It provides the strategic context for making management decisions and for maintaining a focus on the organisation's vision and values. Knowledge management is thus seen as being different from information management, which relates more to operational level management.

Processes to encourage knowledge sharing and reuse

A number of formalised processes are in place to encourage and facilitate knowledge sharing and reuse at PPP healthcare.

One forum is the Planning and Prioritisation Committee. This was established to review key business projects centrally to ensure that they are aligned with PPP healthcare's overall business strategy. Once approved, information about each new project is then circulated to other business teams so that they can assess whether there are any implications for their own plans. Business teams are also encouraged by senior management to share their plans by giving presentations to other areas of the business.

Within the Information Technology and Business Change department a strategy and architecture reuse group has been established. Its role is twofold, first, to ensure that all IT projects are aligned to the business strategy and second, to ensure that the underlying target systems architecture is considered in all new developments. The strategy and architecture reuse group meets bi-weekly which gives an indication of the importance given to this knowledge enhancing task within the Information Technology and Business Change department. Project teams have to provide evidence to the strategy and architecture reuse group that they have given consideration to the reuse of existing knowledge available throughout the AXA group. Another function of this group is to educate IT teams about the benefits of knowledge sharing. It encourages IT teams to plan in knowledge gathering activities at the start of their projects.

A new product development process is also in place to facilitate the sharing of new product ideas and the prioritisation of new developments.

In addition to these formal processes there are a number of informal processes to encourage knowledge sharing within the organisation. These include:

- 'Lunch and learn' sessions where speakers, drawn from different parts of the business, share their 'Know of' and 'Know how'.
- Regular staff conferences are run within a number of departments.
- The IT teams across AXA have formed learning clubs where individuals share their knowledge on different aspects of IT, such as security systems and mainframe systems.

PPP healthcare has also been able to enhance its knowledge-sharing capabilities by utilising its operations in India to provide additional internet research which has increased its capacity to acquire and communicate knowledge. In addition, significant business benefits have been achieved by encouraging and supporting knowledge-sharing across the AXA group. For example, through developing a global approach to IT and also through the formation of a health synergy group.

The corporate intranet

One of the larger knowledge management projects is the introduction of a corporate intranet. This was implemented in May 2000. There were two key strategic aims behind its development. One was to act as a communication tool. The second was to support the aim of "bringing knowledge to people's fingertips".

The intranet was designed in partnership with representatives from around the business and in particular the Customer Service Department, one of the biggest users, and the department where the intranet was piloted. Customer Service is the organisation's front-line interface with customers. They provide a first point of call for claims, as well as information about PPP healthcare products.

All staff within Customer Service work on a shift system, covering the hours of 08:00 to 22:00. They work within teams of about fifteen, including a team manager. Given the size of the department, and the shift patterns operated within it, staff have to hot-desk. Before the introduction of the intranet staff had to gather together all of the documentation needed to do their job, for example procedures manuals, memos, policy update notices, and take this to whatever desk they were going to be working at for their shift. This was a lot of material to be gathered together before starting work.

One of the key benefits of the intranet from Customer Service's perspective is that not only does it act as a central filing cabinet for key information that personal advisers need to do their job, but that this information is presented in a more accessible and up-to-date format.

Whilst the initial focus of the intranet was on Customer Service, its main purpose was to enable communication across the whole organisation. The intranet project team wanted to create a system that would provide a knowledge-sharing tool that cuts across functional boundaries. It also wanted to develop a sense of community amongst PPP healthcare's 2,000 plus employees. To encourage usage, the project team created a 'free-time' area containing social information, to complement information that staff needed to access for their work. The 'free-time' area initially contained information such as menus for the staff restaurant, horoscopes, local and national weather reports, forthcoming social events, National Lottery results, as well as information about the company's staff discount scheme. There were some concerns that staff might spend too much time reading the 'free time' section rather than doing their jobs, but in practice this has not been the case.

In addition to company-wide information and the 'free time' area, there is the opportunity to hold department-specific information on the intranet. Customer Service, for example, has an area that contains pictures of their colleagues who work in India. This has enabled the UK staff to get a better sense of their culture and has helped enhance teamwork across this geographical boundary.

The intranet is now managed by a small team, which sits within the Internal Communications function. This has enabled the delivery of more communications' orientated sites, which increases the usage of the intranet and also helps facilitate knowledge sharing. For example one of the biggest successes is the 'Ask Kate' section, an area where staff can pose work-related questions to the Customer Service Director and be guaranteed a response. All staff can track the questions that have been asked, together with the responses. This approach is helping to reinforce the open communication philosophy that PPP healthcare wants to develop further.

The intranet as a springboard for other knowledge enhancing practices. The success of the intranet as an enabler to developing a more open communication culture has encouraged Customer Service to make further changes to its operational practices, particularly in the area of knowledge-sharing and communication. Communication is always an area of difficulty in a department this size, that covers three shift patterns.

One change within Customer Service has been the creation of a 'communications hub' – a team of five that acts as a central information/communications point for the department. This team regularly scans the 'What's new' section of the intranet keeping on top of information which is most relevant from Customer Service's perspective.

Another change has been a revision of the Personal Performance Portfolio, a reference guide for performance management and personal development within Customer Service. It includes the job-family structure within the department, together with the related competencies. This year a knowledge-based competency has been introduced into the competency framework.

The drive to improve knowledge sharing throughout the organisation remains and further improvements are continually being identified and implemented. The intranet itself is continually being revised and a re-launch is planned for March 2002. This will greatly improve the navigation of the intranet which is now some 8000 pages of information.

Broader learning from these two case studies

- Knowledge management interventions need to be chosen carefully so that they are appropriate for the organisation's size and also reflect an organisation's history and existing areas of expertise.
- Knowledge management interventions need to begin with some form of stock-taking. What knowledge already exists within the organisation? Where is it located? Where are the gaps? How can these gaps best be addressed – is it through development, 'buying in' experts on a short or long-term basis, or through outsourcing?
- Equal attention and resources need to be allocated to the formal and informal practices that facilitate knowledge sharing.

- The way in which an organisation is structured has implications for how knowledge is developed and retained. Whilst de-centralised structures can enable in-depth knowledge to be more easily developed, there is a danger that, unless carefully managed, this knowledge remains localised rather than flowing freely across the organisation.
- Any re-structuring/re-organisation plans need to take into account the potential impact on an organisation's knowledge assets, both short-term and longer-term.
- Leaders have an important role to play in helping technical specialists see the value of their specialist knowledge within a broader context.
- The need to develop and retain specialist, as well as more generic, knowledge needs to be reflected in an organisation's overall knowledge retention plans.
- Organisations that recruit employees in cohorts from a particular source i.e. the graduate population, need to plan for the time when this cohort moves on, in order to retain their corporate memory.
- The Corporate Communications team can play an important role in an organisation's knowledge management approach. Involvement from the Corporate Communications team can help the organisation see how the corporate intranet can become a strategic communication's tool.

Organisations in the public sector are beginning to recognise the benefits of adopting a more emergent knowledge management approach. This is despite having to adopt a more mechanistic approach in order to meet targets being set under the Modernising Government Agenda, for more joined-up working. The DTI, for example, has recognised that it is often quicker and more natural for individuals to share knowledge orally. Thus one focus of their work on knowledge management has been to find more effective ways of identifying who is who within the organisation and also who knows what. The NHS Information Authority has established a number of regional learning networks in order to encourage collaborative learning across different disciplinary groups within the health service. The Cabinet Office has established a Knowledge Network to pool and share information across central government departments. As with the DTI, another focus of the work within the Cabinet Office is that of helping people to make connections, which again is seen as another way of improving the speed of access to information.

Chapter 6 Case studies in developing and retaining 'know how'

Change is a constant in the modern workplace and hence the focus on continuous learning. This may mean learning to do existing things better (first order change), or it may mean learning to do new things (second order change). In the modern workplace the ability to learn and develop are essential requirements and form a key competency in many organisations.

This concern with learning in today's ever-changing world is something that Etienne Wenger (1998) argues is justified. However he argues that we also need to change our assumptions about learning. Traditionally learning has come to be seen as something that takes place within structured environments (e.g. the training room, classroom, or lecture theatre). This is a very prescriptive view of learning where the emphasis is on trying to control and direct learning. However in reality, as Wenger and other social learning theorists point out, learning is an integral part of our lives and occurs through our participation in communities and organisations.

So what assumptions does your organisation hold about learning and change?

Does it assume that knowledge consists of pieces of information, stored in the brain, which can be neatly packaged into materials that can be delivered in a formal learning environment? Or does it assume that information stored in an explicit form is only a small part of what we know and that much of what we come to know occurs through interaction with others?

In your organisation do people assume that change can be brought about by institutionalised practices that can be rolled-out for implementation? Or it is assumed that individuals participate in creative practices that cannot be captured and replicated by institutionalised practices? If the latter reflects your organisation, then it is likely that one of your knowledge management goals will be to create the environment within which communities are valued and encouraged and where resources are made available to help them learn what they need to learn in order to bring about change. In addition, the value of learning from the wider community is likely to influence your overall development approach. Thus employees will be encouraged to engage in activities outside the organisation that can help develop their 'know of' and 'know how'.

There is another dimension to learning which is also important for knowledge-creating organisations to address. This relates to the level of importance that is placed on developing what Calder and McCollum (1998) refer to as general human capital (i.e. skills and knowledge which enhances a worker's productivity, regardless of where he or she is employed), as opposed to specific human capital (i.e. skills and knowledge which can only be applied in the worker's current employment environment). This is where the development angle can be taken much broader, so that it reflects individual career development needs in a knowledge economy.

For an organisation that is striving to retain knowledge, it could be expected that one of its priorities will be investing in resources that lead to the development of specific human capital. However, with the changing psychological contract of employment, employees are more likely to want to work for employers who are prepared to invest in the development of generic human capital, as that is likely to fit with their own career plans.

The two case studies in this chapter provide examples of how different organisations are making the connection between the development of organisational 'know how' and individual 'know how'. KPMG, for example, recognises that to be a respected player within the knowledge business it needs to support its staff in developing their capabilities: something that it is doing through investing in developing a coaching culture, thus helping staff to develop the skills needed for their current role, as well as helping them prepare themselves for other roles in the future.

A more recent initiative on the BBC's knowledge management journey has been on capturing learning at different stages of the project life-cycle. The Innovation and Learning team (part of the organisation's training and development group) have initiated a 'Live and learn' process to capture learning at different stages of the project life-cycle: project start-up, key stages throughout a project and after-project review. Another area of focus is on developing the managerial skills needed to encourage knowledge building and sharing.

Case study: The 'softer' side of knowledge management – how KPMG is linking knowledge management and career development

"KPMG is the global advisory firm whose purpose is to turn knowledge into value for the benefit of its clients, its people and its communities."

The firm prides itself on its reputation for being a respected professional service provider, something which it acknowledges can only be achieved through the quality and commitment of its people. This in turn requires the firm to demonstrate commitment to its staff by creating an environment within which they feel fulfilled and able to develop and grow and build the capabilities to operate within a knowledge business.

Building blocks in the firm's knowledge management approach

Defining its values

In 1998 KPMG defined its three global values: Clients, People and Knowledge. As a means of accelerating the adoption of the global values, the UK Firm developed its Values Charter to explain what the values meant in terms of people's behaviour. The Charter included the following:

- We will respect all of our people and the contribution they make to the firm;
- We will listen to and aim to understand alternative perspectives;
- We will openly and proactively share knowledge;
- We will respect our own and our people's need to balance personal and business lives;
- We will support our leaders, encourage our peers and develop our people.

In terms of the implementation of these values within the UK one of the ways in which the firm has proceeded is by using these as a base for development, the partner admission process and for assessment (and hence reward). Since the introduction of the Values Charter the firm within the UK has been working on a number of changes to help bring these values alive, to ensure that they inform and become embedded in day-to-day practice.

The firm has continued to revise its practices to reflect its values, particularly those relating to knowledge creation and sharing. Knowledge is seen as a highly valuable asset within the firm and all staff are expected to apply and share their knowledge. It is for this reason that there has been a strong emphasis on developing a coaching culture. One of the firm's

aspirations is to facilitate individuals' learning, and hence build their knowledge assets, through encouraging more movement around the firm. Thus a link is being made between career development and knowledge management.

Some of the initiatives introduced to help equip individuals with the skills and tools needed for knowledge sharing, as well as to manage their own learning and development, are set out below.

Culture change

To succeed in business today the firm recognises that it needs to offer a more responsive and flexible service to clients, but at the same time provide a fulfilling environment for its people, and pay attention to its longer-term future and overall sustainability.

Early in 2001, the UK firm launched darwin, its most significant culture change programme. The name for this culture change programme was chosen carefully to encapsulate the themes of evolution, growth and sustainability. The ideas arising from darwin have their origins in complexity theory and the principle of self organising systems. The firm has focused on five strategic levers for change:

Thought capital – the ability for ideas to surface and for intellectual capital to circulate freely around the firm. This is a key element in the firm's knowledge management approach;

Mindset – having an ability to deal with complexity, being comfortable with ambiguity and having the courage to act despite uncertainty;

Diversity - to provide a richer tapestry of varied approaches and perspectives to business problems;

Coaching culture – a quality of helpfulness demonstrated in the way people relate to one another and the way the firm's systems and processes work, and

Joined up accountability – having the right emphasis on controls whilst providing the freedom for people to experiment and develop, in consultation with others.

The way in which darwin was designed, planned and launched represents a new approach for the firm. The project has been managed by a 'nerve centre' consisting of a changing core group drawn from different parts of the firm, so very much taking a multi-disciplinary team approach. But it is the way in which the firm chose to communicate this culture change programme to its people that marks a significant cultural shift. Instead of using traditional communications approaches e.g. PowerPoint presentations, or memos, to launch the culture change programme, a more creative and open communication approach was adopted.

Over a four-day period everyone in the firm had an opportunity to observe video streamed clips of pre-filmed discussions at their desktops. These discussions were very similar in style to those in the television programme 'Big Brother' and involved colleagues discussing a topic linked to each of the five strategic change levers. Staff who participated in these discussions were encouraged to be as open as possible. The series of videos were named Galapagos. They gave everyone in the firm the opportunity to observe colleagues dealing with significant cultural change issues in real time.

One of these topics was about how individuals manage their career within the firm, including the difficulties they encounter. Those participating in the discussion exchanged their own career stories, as well as those of colleagues. The stories included: the difficulties

encountered when trying to make lateral career moves within the firm; the difficulties encountered by those who want to work more flexibly, such as home-working, or working part-time; the tensions experienced by support workers, such as secretaries, who want to broaden their career opportunities, as well as the experience of colleagues who have left to go and work for other consultancies. Each of these discussions surfaced valuable insights into some of the existing restraining factors experienced by individuals when managing their own careers, thus providing insights into where change is required.

Supporting career development

Individuals within the firm have always been encouraged and supported with managing their own careers. An additional resource, introduced in the late 1990s, to help individuals manage their own career was the career broker service (see Holbeche, 1999).

One of the key strands emerging from darwin relates to people and career development. A key theme of the people and career development work is that of helping individuals manage their careers within a broader eco-system. Here the firm is aspiring to help its people learn and grow through developing a career that involves moving around its eco-system. In this way individuals will be supported to develop a successful career within a knowledge business.

In essence the firm is adopting a much more grown-up stance on career development, even to the point of acknowledging that it may be appropriate for some individuals to look outside the firm for a career move, at some point in their career. Equally, it may be appropriate for an individual who has made a career move outside, to return to the firm at a future point in time. In career terms a stronger emphasis is being placed on valuing diversity, adopting modern ways of working, facilitating relationship building, as well as the development of skills through building a coaching culture.

The firm recognises the learning opportunities that can occur through involvement in community programmes and actively encourages its people to participate in its community involvement programmes which have five themes: mentoring, leadership, enterprise, employability and team building. The 'Community Bank' programme enables employees to allocate half a day a month to various community projects. During 2001, around 1,500 people within the firm participated in one or more community projects (KMPG UK Annual Report, 2001). There is also the opportunity for some people to work on more substantial projects within a community organisation.

Developing a coaching culture

Coaching is seen as one of the firm's strategic change levers and hence an integral part of its culture i.e. the way in which individuals work with, and learn with and from each other. The firm stresses that everyone in the firm has a right to expect coaching from others and that its people have a responsibility to provide coaching to others when requested.

There are two key aspects to the coaching culture being developed within the firm. First, in terms of the way in which individuals operate and relate to one another, for example:

- Having a leadership style which helps individuals to realize their full potential;
- Encouraging and enabling coaching and mentoring processes;
- Encouraging and supporting an environment where people feel motivated and encouraged and receive timely and constructive feedback, and
- Continuing to enhance the quality of our performance management processes.

Second, in terms of accessibility and availability of more structured help, for example:

- The accessibility of coaching following specific development activities
- Having learning and knowledge management tools which provide intelligent information and help people to make the right decisions.

The firm has invested, and is continuing to invest, in a number of resources to help build a coaching culture. These include: access to internal and external coaches to support personal development; skills training to develop the skills used in a coaching relationship; leadership support for coaching; information and access to appropriate coaching support through the firm's people portal (My_Life@KPMG), as well as learning and development resources and contacts.

In addition there are a number of structured development processes that can lead to a specific coaching need. For example: 360-degree feedback; performance management review; senior management development programme; senior management assessment centre and the Director and Partner Panel Interview. Guidance on how to gain access to coaching support following any of these development processes is again available via the firm's people portal.

The Nerve Centre, set up as part of darwin, regularly tracks initiatives and progress being made in different parts of the firm on its coaching journey. Its role is one of identifying and connecting different players within the firm so that lessons learnt can be shared across the firm.

Knowledge sharing tools

The firm has also invested significantly in the technologies needed to facilitate knowledge sharing and to encourage collaborative working amongst its own staff, and with clients. The corporate intranet is one of the key tools used by staff as part of their day-to-day work. As this was felt to be such an important vehicle for knowledge sharing a separate training programme has been developed to help staff get the most out of the intranet as a tool for their day-to-day work. An online collaborative tool, KClient, helps facilitate knowledge exchange and information sharing between different teams – thus helping to connect the right people at the right time.

The next case study, which is from the BBC, reinforces the point made in Chapter 3 about the importance of evaluating the outcomes of knowledge management goals and activities. As Probst et al (2000) point out, as Knowledge Managers do not have established measures to fall back on, it is important that they evaluate their role, the work of their team and the impact of knowledge management initiatives, as well as finding new paths to follow. The scope of the work of the Knowledge Manager and his team at the BBC has extended from a very specific knowledge-building brief to a much broader developmental role, with the objective being to help managers develop their 'soft skills', particularly those that relate to facilitating knowledge creation and sharing.

Case Study: 'Live and Learn' – knowledge sharing within the BBC

It has taken two to three years to generate an interest in knowledge management within the organisation. This interest has been fuelled by the initial work carried out by Euan Semple and his team within DigiLab team where the focus was on helping different people in the organisation learn about the capabilities of new digital technologies, particularly Digital Video (DV) camcorders.

The introduction of DV camcorders, in the mid-nineties, presented a new challenge for the organisation. The low cost of this technology meant that Producers were able to purchase it themselves, without necessarily having to go through the central channels and, in some cases, use it directly for broadcasting. As reported in an earlier case study, this meant that this technology hadn't been "strategically managed in" (Evans, 2000).

The initial priority for the DigiLab team was to broaden awareness within the organisation about the capabilities of DV technology and to provide an environment for experimentation and further learning. Initially the team saw their role as gathering 'expert knowledge' about DV technologies, sifting it and writing it up in a format that could be made accessible to others via the intranet. Certainly this service was of value to others, as indicated by the growing number of users and hits on the intranet.

Having achieved their initial aim the DigiLab team sat down and reviewed their role in knowledge management. They were aware that any Information Management strategy could take either a structured/controlled approach, or a more open approach where the focus is on ease of accessibility and connectivity.

In reviewing their role the DigiLab team realised that as 'information sifters' they were putting their slant on what information is and is not important, and in doing so they were potentially setting themselves up to fail. They felt that going forward their role should be one of facilitators and connectors of knowledge exchanges, rather than acting as a centre of expert knowledge.

Three distinct areas of work came out of this review process:

- The creation of a discussion forum on the intranet where individuals are able to get real time answers to problems they are struggling with, rather than having to do extensive intranet/internet searches. The team felt that having a vehicle for getting real-time answers to current operational problems would provide a better source of learning than searching through extensive databases. In addition, it would help to build more connections across the organisation.
- Extending the use of the intranet to enable individuals to provide details about their particular areas of interests (both in and out of work) alongside standard organisational information such as name, department and contact details.
- The introduction of a 'Live and Learn' process, based on story-telling techniques, which has become part of the organisation's training provision.

The 'Live and Learn' process

This is a three-stage process designed to surface knowledge at different stages of the project life-cycle, facilitated by Euan and his colleagues in the Innovation and Learning team (part of the central training & development group where Euan now reports). These stages include:

Project start-up: Here the Innovation and Learning team help project team members tease out existing knowledge relating to the project, as well as identifying any gaps. In addition they help project teams consider what they see as some of the potential difficulties that they are likely to face. Sometimes the team helps project teams draw on other 'experts' to work alongside them in order to help them think through and/or shed light on areas of potential difficulties.

Key stages throughout the project: The emphasis here is on finding out what is really going on i.e. what is working, what is not working, and what the sticking points are and how these can be overcome. As the Innovation and Learning team are not so attached to the project they are able to ask questions that may not get asked, either by the Project Leader or team members.

After-project review: Here the focus is on who was involved in the project, what involvement did they have, what really happened, as well as uncovering any war stories. The Innovation and Learning team often draw on other 'experts' within the organisation to help with this process, for example drawing on the skills of journalists, as they are used to extracting stories from people, including the gory ones.

Each of these 'Live and Learn' sessions are recorded in audio format and on video. Afterwards bits of the transcript are converted into HTML language format so that they can be loaded onto the intranet for others within the organisation to access. Each transcription extract is cross-referenced with its respective video extract so that it can be referred back to if needed.

The Innovation and Learning team didn't want the 'Live and Learn' process to be launched as a big Organisational Development project. They felt that it wouldn't work as well if this were the case. Instead they have built interest in the process through personal networking.

The experience of conducting the 'Live and Learn' process has identified a need for alternate learning programmes for managers. One of these is a scenario-planning workshop focused specifically on new and emerging technologies. Another is a workshop to help managers improve their 'soft skills', particularly those relating to facilitating knowledge creation and sharing within the workplace.

Euan and his colleagues in the Innovation and Learning team are currently piloting a workshop entitled 'How to be a manager without grimacing'. This title came out of a team photograph session taken as part of an after-project review. During the review process team members were happily chatting to each other, telling stories etc. and yet on the photograph they all had a uniform facial expression, as though they were not being themselves. After the photograph session team members went back to being themselves.

The 'How to be a manager without grimacing' workshops are based on the following guiding principles:

- As managers we are not here to fix everyone's problems for them - instead we need to help and encourage others to fix their own problems.

- Don't try to do, try to understand – the manager's role is to listen to team members.
- If it can be measured, then don't focus your attention on it - this is the opposite way of working for most managers.
- As a manager it is OK to admit that you don't know everything - willingness to listen and learn from others is just as important.

Broader learning from these two case studies:

- Building a knowledge-enabling culture takes time and requires continuous support from managers, as well as other specialist teams.
- In order for individuals to fully engage in knowledge management there is a need to ensure that knowledge management activities address individual as well as organisational development needs.
- Organisations need to be continually evaluating where they are on their knowledge management journey, so that they remain alert to new possibilities for developing their knowledge-building capabilities.
- Specialist teams, such as HR, have an important role to play in acting as 'knowledge connectors', as well as providing the catalyst for change.

Chapter 7 Roles and responsibilities for effective knowledge management

“The core of management is the art of mobilizing every ounce of intelligence in the organization and pulling together the intellectual resources of all employees in the service of the firm. Only by drawing on the combined brain power of all of its employees can a firm face up to the turbulence and constraints of today’s environment.” (Konosuke Matsushita)

In many organisations it is the IT function that has been, and in some cases continues to be, the main driver of an organisation’s knowledge management approach. Whilst the IT function has an important role to play in providing systems and tools to help facilitate knowledge building and sharing, a successful knowledge management approach requires a more collaborative and cross-functional team approach. The case studies in the previous chapters provide good examples of how adopting a collaborative approach can enhance an organisation’s knowledge capabilities.

The research findings indicate that line managers, individuals and specialist teams all have important roles to play in developing and retaining organisational knowledge. This chapter sets out what these different roles and responsibilities should be.

The role of managers

The research has identified a number of key roles for managers in developing a knowledge-building culture, these include:

Provide information for people to develop their ‘Know why’

Somewhat of a cliché now but change is a constant in today’s business world. It is for this reason that individuals within the organisation need to have regular updates on where the business is going and how it intends to get there, together with some of the anticipated difficulties, as well as what their contribution needs to be. This type of knowledge needs to be communicated face-to-face, not just in paper form, so that individuals can ask questions.

Support the free movement of people within the organisation

In her book, *Managing Knowledge Workers*, Frances Horibe (1999) argues that managers can help build knowledge in an organisation by supporting the free movement of its people. As much of an organisation’s knowledge resides in individuals’ heads this seems like a sensible strategy. However, Horibe recognises that managers may need incentives to encourage them to do this, as a natural inclination for managers is to hold on to good people rather than facilitate their movement to other teams. She suggests that to encourage the free movement of staff, the organisation (i.e. the senior decision-makers) needs to consider being over-resourced, thus creating the slack to allow movement within the organisation, as well as offering specific rewards for managers who willingly support the free movement of personnel.

Trial new team structures and ways of working

To free individuals to work in a more creative ways several organisations have introduced new team structures, or have created a flexible unit that is isolated from the rigid operating core (Volberda et al, 2001). Citibank adopted this approach when it was developing its

world-wide consumer operations and its 24-hour telephone banking service. One of Citibank's branches in Greece, where much of the development took place, became known as the organisation's 'banking laboratory'.

A similar approach was adopted by the Prudential when they were developing the Egg account. Here a separate team, where the managers and team members worked on a more equal basis, was established. The DigiLab team set up within the BBC to build knowledge about the capabilities of Digital Video camcorders (see Chapter 6) is another example of where specialist teams can help meet a particular knowledge need at a given point in time.

When assembling project teams another consideration to help build and spread knowledge is to actively include 'novices' in the team. This is a strategy adopted by one of IBM's top systems software managers at Hursley Park (Kavanagh, 2002). This particular management approach can have a number of benefits. First, as novices often ask naive questions, this can help stimulate other team members to question their own ideas, thoughts and working assumptions. Second, these 'novices' get an opportunity to learn directly from more experienced team members, thus helping with knowledge development and retention.

Locate the knowledge experts and extend and reward their remit

Within every team there are certain individuals whom others, either within the team, or from outside the team, consult with to tap into their knowledge. These individuals are often called upon to assist in trouble-shooting projects. But equally they may be good connectors of knowledge both within and outside the organisation, because of their vast network. The value that these 'knowledge experts' bring to an organisation is often under-estimated. Equally the amount of time that these individuals spend either helping others resolve their problems, or sharing their knowledge in other ways, is often not budgeted for. A consideration for line managers then is to revisit the role descriptions/job descriptions of these 'knowledge experts' and also their performance objectives so that these reflect this often 'taken for granted' but never rewarded role.

Build and facilitate knowledge connections

With the role of managers shifting from 'subject expert' to more of a facilitative role, a key task for managers is to build and extend their own network connections, both within and outside the organisation, as well as to facilitate knowledge exchanges amongst others within the organisation.

Encourage and support informal learning

As seventy per cent of what we learn comes from informal learning approaches managers have an important role to play in supporting and encouraging informal learning environments. These can range from: supporting Communities of Practice; creating spaces within the office environment where team members can come together for informal discussions; introducing a knowledge exchange slot at team meetings, or adopting the apprenticeship model of learning for individuals at different stages of their career.

With technology being a key tool used by many individuals as part of their day-to-day work many of the practices used in the past to build and share knowledge can become lost or replaced with a technological solution. The Chair of a NHS Conference on Knowledge Management for Clinicians I attended reminded his audience that there is still value to be had in some of the traditional knowledge-sharing practices used within the profession. Here he was referring to the traditional 'ward round' practice where trainee doctors follow a qualified clinician around on his/her ward rounds, thus bridging the learning between theory

and practice. In the past, if a question was asked on the ward rounds that no one could answer, one of the trainee doctors would be instructed to write the question down, go away and find out the answer and return with this at the next ward round.

Revisit assumptions about what counts as productive work

Closely linked to the point made above about the need to create spaces for informal learning is the need to revisit assumptions about what counts as productive work. Several other writers have been quoted as saying that talk is real work in the knowledge business (Davenport and Prusak, 1998), as it is through conversations and dialogue that we extend our 'Know of', 'Know why' and 'Know how'.

In today's knowledge economy managers need to re-frame their perception of what counts as productive work. They need to become more tolerant of what Apgar (1998) refers to as the "Doughnut club" i.e. the place where virtual teams meet to talk about problems they are experiencing with customers and get feedback on what they are doing and what Leonard-Barton refers to as "engineering as many accidental meetings as possible". The English Nature case study in Chapter 5, as well as the DERA, Cap Gemini and SmithKline Beecham case studies in the previous research report in this series (Evans, 2000), provide similar examples.

During this phase of the research I have uncovered several stories which reinforce the need for managers to revisit what counts as productive work.

The Journalist's story – this is the story of a journalist who was questioned by his manager as to why he was reading a selection of other newsprints at his desk.

The Utilities Engineer story – in this particular organisation the senior management team took a decision to cancel the service engineers' weekly team meetings. For most of the week engineers worked independently out in the field; attending the team meetings meant that they had to make a special journey back to base. Clearly whilst attending the team meetings, engineers were not able to respond to calls from customers. This was considered not to be in the best interest of customers. However, in cancelling the weekly team meetings, what the management team had overlooked was the amount of informal learning that took place, before, during and after the team meetings. The meetings provided an important opportunity for knowledge transfer with the less experienced engineers picking the brains of the more experienced engineers.

The Salesman story – this is the story of a sales person who had worked for thirty years in the sales department of a large American company (Probst et al, 2000). His daily routine involved having chats with his immediate colleagues, as well as walking around the office chatting with other people in the department. However, a review of the sales figures by a new managing director identified that this particular sales person did not actually sell very much and he was thus dismissed. Once this particular sales person had left a number of difficulties began to emerge in the department. These included: difficulties with communication and co-ordination across different sub-sections, a dip in morale and new employees found that they had no-one to indoctrinate them into the company's unwritten rules. In short, the organisation had misread the role that this particular sales person had played in transferring knowledge through his daily walkabouts.

With individuals working to increasingly greater time pressures within organisations, often skipping lunch and coffee breaks, the negative impact, from a knowledge perspective, should

not be underestimated. The critical importance of bringing teams together, particularly those who are geographically dispersed or working in virtual teams, has been documented by other writers (Apgar, 1998; Leonard-Barton, 1994).

The role of individuals

Whilst managers have an important role to play in setting the context and in creating the environment within which individuals can develop and share their knowledge, individuals also have their role to play.

Share insights and reflections with others

When running development programmes one of the things that developers often encourage delegates to do is to share their insights and reflections, so why then do we not do this as a matter of course as part of daily business life?

The HR team within one of the major consultancies have adopted a practice of e-mailing their 'What struck me' thoughts to colleagues at the end of each week, as a way of sharing knowledge.

Let others know what you are interested in knowing more about

It is very easy in today's high-tech world to suffer from information overload and a sense of being overwhelmed by the vast number of reference sites. As the GP's story earlier illustrated there is a lot to be gained from sharing what we know, and what we are interested in knowing more about, with other professional contacts. In this way you can each act as another pair of eyes, or ears, helping to connect each other to valuable information sources. This approach is particularly important for those working in more autonomous/independent roles, as the opportunity for informal knowledge exchanges may not occur through the course of your daily work. Research carried out by the author (Evans, 2001) into how self-employed HR professionals manage their learning and knowledge identified how these individuals come to rely on contacts in their knowledge networks for passing on references to information sources that match their areas of interest.

Suspend judgement on ideas until tried and tested

One of the things that can put individuals off sharing their ideas with others is the put-downs that they can get from others, particularly from those who have been with the organisation longer than they have. What needs to be addressed is the 'not invented here' mantra. The Chaparral steel company has gone one further than this. They have introduced an operational slogan of "not re-invented here", acknowledging that creativity is a process of synthesis - the building on of ideas (Leonard-Barton).

Give credit where credit is due

An important message for both individuals and organisations is to accept that knowledge reuse is just as important as knowledge creation. We cannot all be great inventors or pioneers, however we are all capable of learning from the practice of others. Eric Abrahamson (2001), a leading change management guru, argues that organisations that are experiencing continuous change need to adopt the behaviour of rewarding 'shameless borrowing'.

The Spanish have a phrase which is relevant to the knowledge era and that is “Well stolen is half done”. Equally we need to follow a rule of thumb of “Pinch with pride, but give credit where credit is due”, otherwise you may find that you become excluded from knowledge circles.

Blow your own trumpet once in a while

This is something that in this country we are not always that good at. Whilst conducting this research there have been several people who have told me that they feel uncomfortable using the term ‘Best Practice’, as it implies that they are experts in a particular practice. However, it is important that individuals shout about what they know, or have learnt, or what they are aiming to learn more about.

Many organisations now have systems available where individuals can post their successes (e.g. skills databases, internal newsletters, personal web pages). If your organisation has a ‘Yellow Pages’ database make sure that your details are kept up-to-date. Get in the habit of reviewing your achievements and development goals after each project and/or assignment and updating your details. If there is an opportunity to have a home page on your organisation’s intranet then take it. Often this can create the space to say more about yourself than the information held within a ‘Yellow Pages’.

Develop your knowledge building capabilities

To participate in a knowledge-community there are some key competencies that need developing. These include: research/investigative skills, questioning skills, listening skills, experimental or ‘What if?’ type thinking, observation and critical reflection, as well as networking.

Communications Theory suggests that a network’s potential benefits grow exponentially as the number of nodes (i.e. contacts) build and expand. In addition the more people we connect with, the greater our sphere of influence. The ability to build social connections is important for developing our knowledge, as well as for successful career management within the knowledge economy.

Support colleagues with developing their ‘know how’

Several organisations are beginning to specify the knowledge creating behaviours that they want to see in day-to-day practice. The KPMG case study in Chapter 6 shows how the organisation is building a coaching culture, based on an assumption that all employees are expected to apply and share their knowledge. Knowledge building behaviours, linked to the firm’s values, form part of the firm’s assessment practices.

In DERA, one of our earlier case study organisations (Evans, 2000) the level of contribution that an individual makes i.e. by sharing their ‘know how’ with others, is reflected in the organisation’s performance management system.

The role of Human Resources

HR has a pivotal role to play in helping to create a knowledge culture and yet their involvement to date has been limited and patchy. It is fair to say that HR practitioners particularly those working in operational/administrative roles have had little or no involvement in knowledge management. The main interest in knowledge management has come from those working in a developmental/training role. Yet as other writers point out the irony is that HR is well placed to take an active role in knowledge management since

they are the guardians of a variety of data about the organisation's employees, which could be used to ensure a more strategic knowledge management approach is adopted.

With the role of HR changing from operational to strategic (Holbeche, 1999) HR professionals should be in a better position to adopt a more strategic standpoint with regard to knowledge management.

David Dell, the Research Director of The Conference Board Inc., a research network in America, argues that HR needs to learn to redirect themselves and their organisation towards a culture where collaborative and cross-functional team working is the norm and where the organisation is able to attract and retain the best talent on the market (Roberts-Witt, 2001).

In the General Motors (GM) Corporation, for example, HR have been set a number of strategic goals that relate to managing knowledge (Roberts-Witt, 2001). One is to identify and eliminate unnecessary bureaucracy within the corporation. This involves reviewing different organisational practices to identify inefficiencies and barriers to rapid implementation and then redesigning so that they are smoother and quicker. Another is to recruit, develop and retain flexible and mobile workers. A third strategic goal is to identify employees who only intend to stay with GM for a limited period of time so that the implications for the organisation's knowledge base can be managed, as well as deciding how best to manage and reward these individuals in the short time that they plan to be with the organisation.

So where should HR focus their energy in a knowledge business?

Co-ordinating plans for the free movement of people (and hence knowledge)

In knowledge businesses succession planning needs to have a different emphasis. Instead of thinking of succession planning purely in terms of the upward movement of staff, as is the case with traditional succession planning, there is a need to consider the lateral movement of staff. This is important if knowledge is to circulate freely around an organisation. HR has an important role in re-educating managers on how to plan for and manage lateral career moves, as well as helping co-ordinate plans for the movement of people around the organisation.

People moves, however, do not have to be on a permanent basis. Other ways of working that can enable knowledge to flow across departmental boundaries include: secondments; cross-boundary team working; work shadowing, as well as coaching and mentoring. Thus another role for HR is to work with teams helping them to trial and learn from different ways of working.

Helping to build informal learning environments

Learning is a crucial ingredient for success in knowledge building organisations. Whilst formal learning programmes, such as training programmes and qualification programmes, are important sources of learning, the value of informal learning in the workplace should not be underestimated. Around 70% of what we learn occurs in informal contexts. There is now more of an acceptance of the importance of the social context for learning and how much of what we learn occurs through social interaction (Wenger, 1998).

HR has a pivotal role to play in building an environment where informal learning is valued and supported. This requires paying attention to the way in which different learning resources are positioned, as well as the physical spaces within which learning can take place.

Coaching, mentoring, job shadowing, secondments, back-to-the-floor, participation in Communities of Practice and cross-boundary team working are all practices that are being revisited and/or adopted within organisations to build its knowledge base.

Cross-boundary team working and secondments can bring the added advantage of adding to an individual's social capital (i.e. the contacts that they have within their network). Managers have an important role in helping individuals understand the importance of networking for the development of knowledge – the more contacts an individual has the greater his/her sphere of influence, the more sources of learning they have and the more opportunities it can open up from a career perspective.

To some extent there is a potential clash of interest here for trainers and developers. When presented with a learning need from the business the natural reaction is to offer a training programme. However, many organisations now are beginning to revisit their learning offering, drawing on broader learning approaches including: formal learning programmes; self-directed learning programmes, as well as utilising new technologies for learning.

One organisation in the financial services sector that has attended one of our knowledge management seminars has taken a strategic decision not to offer a structured skills development programme for its managers. Instead it has adopted the Self-Managed Learning model as its core learning approach for managers. Adopting this approach enables managers to focus on his/her specific learning needs, rather than more generic learning. Learning in Self Managed Learning Sets has the added advantage that it can help managers to develop their 'soft' skills (e.g. listening, questioning, offering feedback), which they can then apply in their interactions with team members, colleagues and management.

Facilitating knowledge mapping and knowledge exchanges

One of the biggest difficulties organisations are facing today, particularly those that have a flexible and mobile workforce, is knowing who knows who and who knows what. A tool that HR practitioners can use with their business colleagues to help them address this issue is Social Network Analysis. This is a structured methodology for identifying connections within social networks together with the type of support offered and received. Used appropriately Social Network Analysis can help identify 'knowledge hubs' (i.e. individuals whom others rely on for certain types of information and other forms of support). Some HR practitioners advocate the use of Social Network Analysis in the recruitment and exit interview process, as well as when building communities of practice.

Where HR adopt the Business Partner model of working they are in a good position to spot any overlaps and gaps in an organisations' knowledge base, as well as connecting individuals/teams that are knowledge aware/rich with those that are less so. So there is a strong argument for HR to be involved in all new business developments, even in situations where they may not initially appear to add value. This way of working will enable HR to remain in touch with business and organisational realities, as well as gathering information that can be used to develop leading edge HR practices.

Ensuring the organisation's HR practices are knowledge aligned

The previous research report in this series (Evans, 2000) provided a model for linking HR and KM practices, thus providing a framework for ensuring that a knowledge focus is added to current and future HR practices. The model encompasses steps that can be taken to ensure that a knowledge focus is maintained in the recruitment, induction, reward and recognition, career management and performance management systems.

Chapter 8 Summary and conclusions

Whilst there are still some concerns that knowledge management is just another management fad and thus not to be taken seriously, the latest findings from our research indicate that some organisations are now taking knowledge management more seriously. The 2002 Roffey Park Management Agenda findings, for example, indicate that the number of organisations that see knowledge management as a strategic priority has increased from 32% in 2001 to 49% in 2002.

Despite this, this research has identified that some organisations are still struggling with what knowledge management is about. This makes it difficult for them to develop a focus, as well as prioritise knowledge management activities. Indeed the term 'knowledge management' is not something that is widely used within some of the case study organisations in this research, for example PPP healthcare and English Nature. Equally some practitioners are not entirely happy with the term 'knowledge management' either. However, they are struggling to come up with an alternative label - talent management and managing intellectual capital are some of the alternative labels being used.

Because of this lack of understanding of what knowledge management is about, it is not surprising that there are differing views as to the best approach to take when developing a knowledge creating culture. There is one school of thought (the Mechanistic Knowledge Management approach) where successful knowledge management is characterised by a top-down, controlled approach, with a strong emphasis on knowledge codification, facilitated through the use of technology. In contrast there is another school of thought (the Organic Knowledge Management approach) where knowledge building is seen as a highly social activity and hence the focus is on developing the people aspects of knowledge sharing, particularly encouraging collaborative learning through Communities of Practice.

There are definitely some converging views from theorists and practitioners on how to encourage and support learning in knowledge businesses. Over the past three to four years there has been a renewed interest in Social Learning Theory, where learning is seen as something that is mediated by social relations, rather than it being a solitary activity. Several writers argue that one of the advantages of Social Learning Theory is that it breaks down existing distinctions between formal and informal learning, particularly where formal learning is perceived as being superior to informal learning.

This renewed interest in social learning is now being reflected in the practice introduced in many organisations for learning in Communities of Practice, either face-to-face, computer mediated, or a combination of these approaches, and through the use of the Apprenticeship model of learning (Fuller and Unwin, 1999).

Learning in Communities of Practice and through the Apprenticeship model has the advantage that it helps develop intellectual capital, as well as social capital, which they define as " ... the oil that lubricates the process of learning through interaction" (Kilpatrick, Bell and Falk, 1998)).

In large geographically dispersed organisations, adopting a collaborative approach to learning can also help create a greater sense of community. In addition, with the emphasis in today's workplace on managing your own career, building social capital is also vital for successful career management. It is for this reason that one focus of the knowledge management

approach in several of our case study organisations has been on building and facilitating network connections both within and outside the organisation.

In addition the need in today's ever-changing business world to engage in second-order change (i.e. doing different things, as opposed to doing existing things better) is often better addressed through collaborative working. Cross-functional team working and partnership working can, as the case studies in this research report have shown, bring enormous benefits for the organisation as a whole, as well as for individuals and their on-going development.

The challenge for managers then in the knowledge economy is to adjust to these new ways of working and facilitating learning. They need to come to accept informal learning approaches, such as coaching and learning in Communities of Practice, as legitimate forms of productive work recognising that, like other forms of work, they require certain resources.

In addition, as several of the case studies in this report indicate, there is also a need for managers to revisit their assumptions about leadership. Instead of managers positioning themselves as 'subject experts', their role ought perhaps to become more that of learning facilitators and knowledge connectors. In this way helping to build the organisation's knowledge building capabilities.

Finally, whilst it is clear from the research findings that building a successful knowledge creating culture requires a collaborative approach between managers, individuals and specialists teams (e.g. IT, Corporate Communications and HR), the scene is being set for HR to move more centre stage and take more of a leading role in the knowledge management arena. There are two things that are steering HR in this direction. First, the HR function in general is adopting a more strategic role, through the business partner model. Second the growing consensus that what knowledge management is really about is learning and change, is something that maps directly on to HRs core competence. As we have seen in this research report, HR teams are making their mark by helping the business revise its business and people management processes in order to eliminate inefficiencies and duplication, as well as revising the HR practices that relate to managing knowledge.

As HR takes on more of an active role in knowledge management it will be important for them to maintain their strategic position, rather than slipping back into its old operational/implementation role. In this way HR will be able to add value in the knowledge management arena in three key areas: helping to build a learning-centric organisation; developing a focus on building and retaining organisational capabilities, as well as facilitating relationship building, both within and outside the organisation.

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