Knowledge Management - State of the Art
Initial Findings, First Report

I would like to stress that these are *initial* findings of some of the issues currently on the agenda in Knowledge Management. From a wide range of sources I have briefly tried to summarise my impression of what consultants, industrialists and university are focusing on in their Knowledge Management processes and research. Most publications are still only pointing to the *need* for Knowledge Management and tend to emphasise the raising of questions rather than presenting useful answers. It will be an ongoing task of this study to separate the former from the latter!

Knowledge Management and Networking
Peter Kemlin Fenix Göteborg

Internal Working Paper
26th April 1999

Communication - Knowledge Sharing (1)

What knowledge are we hoping to share?

When individuals think about the "what" of knowledge, they tend to think in terms of knowledge *domains*, or what it is they are knowledgeable about. They will then set priorities amongst these domains as to strategic importance.

There are other ways, however, of classifying knowledge that have little to do with content. Rather than slotting a piece of knowledge based on whether it is about this or that, for example, we might slot it according to where it could be found. This would be a focus on origin of knowledge as opposed to domain.

The real insight for guiding knowledge Management comes when we look at relative levels of *applicability* and *transferability* of knowledge.

– Applicability: Knowledge can be both local and global.

  Local: Applies to a limited set of conditions, Dependent on physical and/or geographic situation, “Detailed” knowledge

  Global: Widely applicable across the business. Crosses process, industry and cultural bounds, “General” knowledge

– Transferability; Knowledge can be more or less easily transferred.

  Programmable: Rule-based knowledge, Can be applied multiple times. Learning from history in order to avoid repeating mistakes

  Unique: Judgement based, Just in case knowledge, Projecting into possible future problems

Thinking of both of these dimensions simultaneously, the following question can be answered.

Communication - Knowledge Sharing (2)

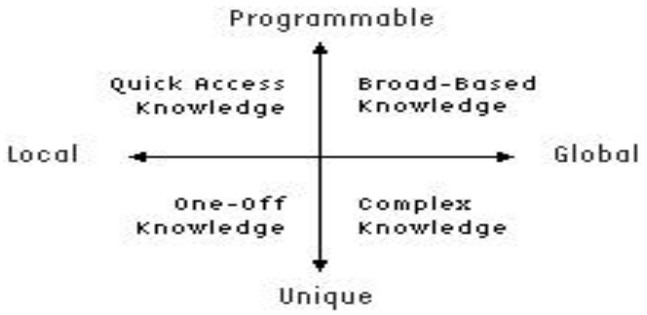
What types of knowledge are we dealing with? - Here are a couple of suggestions:

Quick access knowledge: This kind of knowledge is best managed by placing it in an accessible database - for use if and when needed. ⇨ (Pull strategy)

Broad Base knowledge: Often causes information overflow when it is distributed proactively. Helping to access commonly needed knowledge, rather than *broadcasting* the knowledge itself may be a better solution. ⇨ (Push and Pull strategy)

Complex knowledge: Deserves the most management attention and can not be transferred purely through technology. ⇨ (Requires social contact and a well developed "feel" from the learner)

One-off knowledge: The pay-off of managing this category of knowledge is very low. Support the establishment of informal networks of people who might benefit from interacting occasionally with each other. ⇨ (No specific efforts)



Pull strategy: Information intermediaries (librarians) have traditionally used this strategy, where they pull the information they need from the most appropriate external databases when required.
Push strategy: Customised information services is an example of this strategy. Information is pushed from source to user. With the growing use of e-mail knowledge workers have been used to having information pushed out to them.

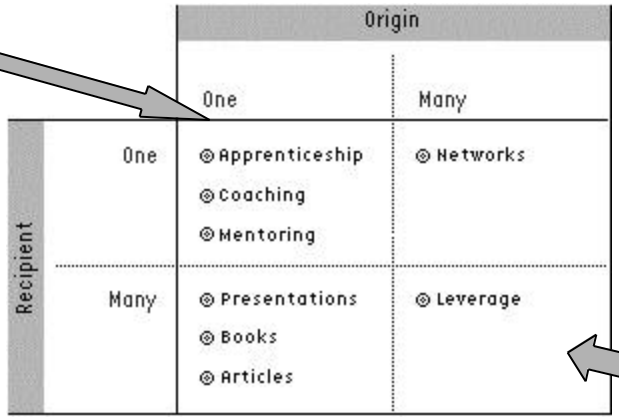
Communication - Knowledge Sharing (3)

Among whom does knowledge need to be shared?

In showing the overall possibilities to transfer knowledge, the figure below points to the realm where knowledge management initiatives meet the greatest challenge.

It is hard to find any successful generalizable cases of efficient handling of one-to-one knowledge sharing. Mentoring has proved to work relatively well in some cases.

One example is a consultant firm within a large Swedish international enterprise who offer two mentors. One is situated within the current organisation and one within another department without any possibilities to direct promote the protégés future career.



A careful balance of push and pull strategies.

The recognition is growing that the real leverage to be expected is in this kind of transfer and that knowledge management efforts should focus here first.

Fore example see case study; Thomas Miller & Co Ltd on next page.

nework based on; Peter Novins manager of continous improvement, Betchel
Richard Armstrong, partner at Ernst & Young, New York
.businessinnovation.ey.com/journal/issue1/features/choosi/body.html#pdflink

Communication - Knowledge Sharing (4)

Case Study: The Thomas Miller & Co Ltd

Parallell knowledge processing through GroupWare.

The Thomas Miller & Co is an established manager of mutual insurance companies and depends heavily on sharing its expertise on a global basis. It uses technology in the form of Louts Notes to share this knowledge. Interesting with Thomas Miller is that they have gone from an e-mail culture, i.e. distributing knowledge strictly using push strategies to a pull strategy where all knowledge is kept in Notes and where you actively persue knowledge through a pre-identified profile. The big cultural change between traditional e-mail, where you urgently have to scan every message and this kind of GroupWare is that you have to accept that there are hundreds of messages that you have not read.

In terms of vendor success, two vendors in particular offer strategies that are well positioned for success - Lotus notes and Documentum. Lotus provides a collaborative infrastructure that becomes pervasive within the organisations in which it is deployed.

Source; James Watson, Doculabs and Aris Ouksel, University of Illinois at Chicago, www.kmworld.com/magazine/article.cfm?ArticleID=356

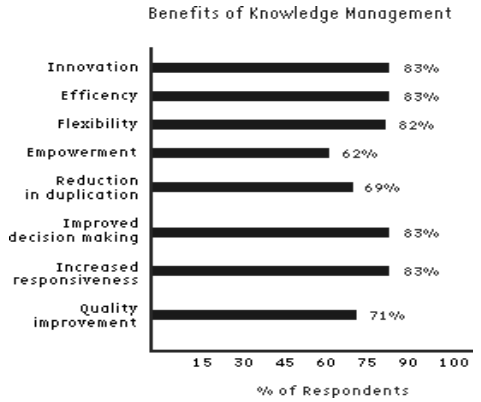
David J Skyrme, Debra M. Amidon *Creating the knowledge based business - key lessons from an international study of best practice*, Business Intelligence Centre 1997

Efficiency vs. Creation/Innovation (1)

Efficient knowledge management is more than efficiency of existing processes

In Ernst & Young's *Twenty Questions on Knowledge Management*, executives believe the greatest pay-off from knowledge management will be in innovation. Interestingly their early efforts seem to contradict this objective. The executives were asked to report on knowledge management efforts already underway in their organisations, most cited were repositories of best practices and lessons learned --efforts which were often justified in terms of efficiency and productivity.

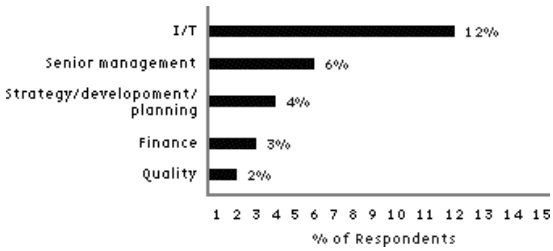
http://www.businessinnovation.ey.com/research/knowle/survey/survey.html

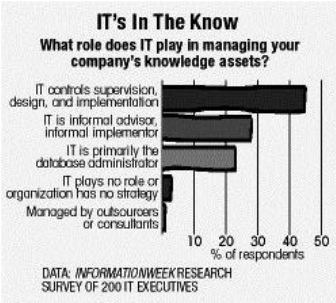


Most Important to Organization's Success

1. Innovation 23%
2. Flexibility 16%
3. Increased responsiveness to customers 10%
4. Improved decision making 9%
5. Efficiency 8%

Who has led Knowledge Management efforts underway in the organisation?





Note!
Surrey made by information Week of 200 IT managers
April 5 1999

Efficiency vs. Creation / Innovation (2)

Implications for the industry

This dichotomy is common in business today. The knowledge management initiatives undertaken today are generally not focusing on actually developing new work processes for creating knowledge, but rather to make the existing ones more efficient. What we generally have not seen, even in the most progressive situations, is an integrated approach to knowledge and skills management that co-ordinates the knowledge generation and distribution within *organisational* learning initiatives, with the knowledge and skill enablement within *individual* learning initiatives. One reason for this lack of integration may be that the knowledge management initiatives have come from IT oriented bodies and most individual learning initiatives have come from Human Resources organisations.

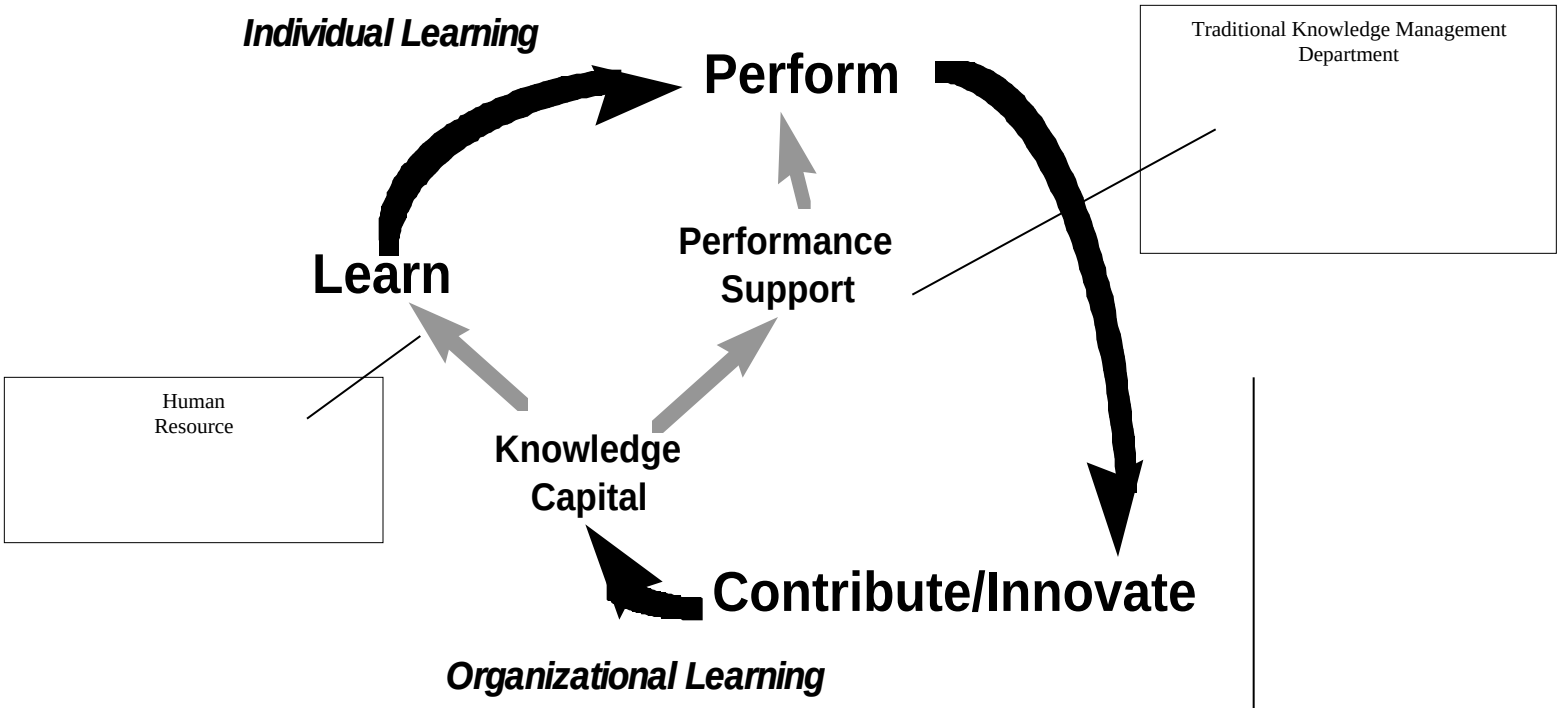
The three components of the performance improvement cycle shown on the next page, should not be seen as separate activities run by (and as) isolated functions. Innovation can occur during training if the means to reflect on lessons learned and contribution is provided and if these means are linked to the knowledge management system. New contributions to organisational learning are best captured at the moment of insight, which frequently occurs during performance, whether simulated through training or actually on the job.

The *performance improvement cycle* on the following page illustrate this concept.

Ives B, Gifford T, Hankins D, Integrating learning to knowledge (and Skills) Management, Andersen Consulting, 1998

Efficiency vs. Creation / Innovation (3)

The performance improvement cycle;



Efficiency vs. Creation / Innovation (4)

Standardisation of Knowledge Management may prevent the original idea of generating more knowledge within a company!

There is at present several initiatives towards some kind of standardisation within the field of Knowledge Management. These are mainly driven by software vendors and consultant firms.

Similarities can be seen with the development of ISO9000 and Total Quality Management. Heavy criticism have been expressed that TQM implementation has had negative effect on the creativity within large enterprises.

Professor Bo Bergman, Department of Quality Technology and Management, Chalmers University of Technology and Linköping Institute of Technology

Thus, Information Technology *can* ironically be seen as much as a driving force as an obstacle for the development of actual knowledge Management (outside of the technologies). Due to the fact that most initiatives have come from software vendors extending their business by providing knowledge management "solutions", which build more or less on implementing their knowledge management products.

Case Study: A Management Consulting Framework

This framework, from one of the largest management consulting firms in the world, is based on the interdependence (degree of cross-functional/cross organisational collaboration required) and complexity (degree of judgement and interpretation required as well as the size of knowledge domains being used) of the work.

Collaborative Groups	**Integration Model** •Systematic repeatable work •Highly reliant on formal processes methodologies or standards •Dependent on tight integration across functional boundaries	**Collaboration Model** •Improvisational work •Highly reliant on deep expertise across multiple functions •Dependent on fluid deployment of flexible teams
Level of Interdependence		
Individual Actors	**Transaction Model** •Improvisational work •Highly reliant on formal rules procedures and training •Dependent on low discretion workforce or automation.	**Expert Model** •Judgement-oriented work •Highly reliant on individual expertise and experience •Dependent on star performers
	Routine	*Interpretation/Judgement*

Complexity of Work

The firm consider themselves primarily being spanning the Integration and Collaboration models while its clients tend to concentrate on the Transaction and Integration quadrants.