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Knowledge Mapping :A Practical Overview

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March, 1999

What exactly is Knowledge Mapping?

It's an ongoing quest within an organization (including its supply and customer chain) to help discover the location, ownership, value and use of knowledge artifacts, to learn the roles and expertise of people, to identify constraints to the flow of knowledge, and to highlight opportunities to leverage existing knowledge.

Knowledge mapping is a important practice consisting of survey, audit, and synthesis. It aims to track the acquisition and loss of information and knowledge. It explores personal and group competencies and proficiencies. It illustrates or "maps" how knowledge flows throughout an organization. Knowledge mapping helps an organization to appreciate how the loss of staff influences intellectual capital, to assist with the selection of teams, and to match technology to knowledge needs and processes.

What are the key principles of knowledge mapping?

- Understand that knowledge is transient.
- Explain the sanction, establish boundaries, and respect personal disclosures
- Recognize and locate knowledge in a wide variety of forms: tacit and explicit, formal and informal, codified and personalized, internal and external, short life cycle and permanent.
- Locate knowledge in processes, relationships, policies, people, documents, conversations, links and context, suppliers, competitors and customers
- Be aware of organizational level and aggregation, cultural issues and reward systems, timeliness, sharing and value, legal process and protection (patents, trade secrets, trade marks, NDAs)

What is a knowledge map?

The knowledge map is a navigation aid to explicit (codified) information and tacit knowledge, showing the importance and the relationships between knowledge stores and dynamics. The knowledge map, an outcome of synthesis, portrays the sources, flows, constraints and sinks (losses or stopping points) of knowledge within an organization.

Why should I map the knowledge in my organization?

- Encourage re-use and prevent re-invention, saving search time and acquisition costs
- Highlight islands of expertise and suggest ways to build bridges to increase knowledge sharing
- Discover effective and emergent communities of practice where learning is happening

- Provide a baseline for measuring progress with KM projects
- Reduce the burden on experts by helping staff to find critical information quickly
- Improve customer response, decision making and problem solving by providing access to applicable information
- Highlight opportunities for learning and leverage of knowledge
- Provide an inventory and evaluation of intellectual and intangible assets
- Research for designing a knowledge architecture or a corporate memory

What do I need to map?

- Location, ownership, validity, timeliness, domain, sensitivity, access rights, storage medium, use statistics, medium and channels used
- Documents, files, systems, policies, directories, competencies, relationships, authorities
- Boundary objects, knowledge artifacts, stories, heuristics, patterns, events, practices, activities
- Explicit and tacit knowledge which is closely linked to strategic drivers, core competencies and market intelligence.

Where should I be looking?

Newsfeeds, contact addresses, network transactions, helpdesks, patent registers, asset and HR databases, warrantee claims, LAN directory structures, library, record archives, process descriptions, push profiles, meta-data directory.

How do I collect the information?

- Conduct interviews and ask targeted questions
- Observe the work in progress
- Track the boundary objects
- Obtain the network traffic logs
- Explore the common and individual file structures
- Gather policy documents, organizational charts, process documentation
- Concentrate on formal and informal gatherings, communication and activities
- Move across multiple levels (individual, group, department, organization)
- Gather from internal external sources

What do I do with all this information?

- Compile yellow pages and register of boundary objects and templates
- Record promising heuristics and best practices
- Construct a proto ontology
- Explore re-use opportunities
- Look for learning points, natural knowledge stewards, gatekeepers, isolated islands, and narrow communication channels
- Map, flows, sequences, and dependencies
- Check for network patterns, critical nodes, high traffic, and highly valuable information
- Write your report providing feedback on the objectives and supporting data in the appendices (interview transcripts, boundary object register, file structure, concept maps, ontology, knowledge maps)
- Consider your next move. Knowledge mapping is often conducted in phases: overview to uncover opportunities, details to drill down to specifics or to cover different department, locations of functional groups.

Key questions

- What type of knowledge is needed to do your work?
- Who provides it, where do you get it, how does it arrive?
- What do you do, how do you add value, what are the critical issues?

- What happens when you are finished?
- How can the knowledge flow be improved, what is preventing you doing more, better, faster?
- What would make your work easier?
- Who do you go to when there is a problem?

Tips and Tricks

- Yellow pages give the fastest and highest ROI
- Who knows whom is key
- Knowledge types include FAQ, heuristics, best practices, lessons learned, solutions to common problems, product knowledge, market knowledge, process knowledge, and the rationale for decisions

Knowledge Mapping as a Business Strategy

- Knowledge mapping can be offered as training, as an information seminar, as an introductory 'free' service. It's a useful way to get a 'foot in the door'.
- Knowledge mapping helps you to understand the client's needs, gaps, opportunities and competitive leverage at a very fundamental level
- After completion a you can offer a follow-up survey to chart progress, send the client information on new tools or offer a benchmarking report
- Knowledge mapping is associated with a major trickle down effect. There are opportunities for further services in architectural and specialized KM practices, implementation and culture change , i.e.
 - Helpdesk and customer service
 - Data and text mining with data marts, OLAP and other backups\ Intranets
 - Conversation servers
 - GroupWare and workflow
 - Virtual communities, psychographics and e-commerce
 - Corporate intelligence, push and scanning applications
 - Setting up an integrated knowledge architecture (messaging, repository, documents, discussion, publishing)
 - Dedicated KM tools, search engines, text and data visualization
 - Training in systems thinking, creative thinking, on-line facilitation
 - Technical documentation to clean and abstract critical documents and presentations
 - Specialized knowledge engineering services: corporate memory, heuristics, expert systems, ontology development, concept extraction, knowledge structuring, patterns, communities of practice, customer capital, IC management.

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Last modified: October 02, 1999