

Knowledge Management

Systems Support to Knowledge Work

Outline

- Knowledge, Information, and Data Work
- What is Knowledge
- Knowledge Types
- Knowledge Management Cycle
- Technology for Knowledge Management
- Messages for Change Leader

Knowledge, Information & Data Work

- Knowledge work involves knowledge generation and utilization (application); Chapter 14
- In contrast, information work involves understanding data (usually processed and formatted, as in reports).
- Data work involves data collection, entry, processing, and formatting.
- Database Systems (demo), Enterprise Resource Planning Systems/Data Warehouses; Owens & Minor

Ch. 7

What is Knowledge

- Knowledge refers to interconnected information on *what* something is, *why* something happens, and *how* to do something .
 - What: definitions of concepts and relationships, taxonomies
 - Why: understanding cause-effect relationships
 - How-to, know-how: analysis/synthesis; methods, procedures for generating new knowledge

Knowledge acquisition is incremental (*what* in layers, *why* with imperfect accuracy, starting from *know-how* and learning *what/why* in the process)



Knowledge is never complete, or 100% correct, can be incoherent and controversial... is messy.

Knowledge Types

- Source view: *Theoretical* (science, theories) vs. *Experiential* knowledge (personal, learned by doing)



- Communication view:

Explicit

- can be communicated to others
- definitions, taxonomies, theories, procedures, cases

Tacit

- difficult to communicate
- experiential, analytical & synthesizing skills

Sharing and capturing tacit knowledge – one of main goals before knowledge management and knowledge support systems.

Knowledge Types – Capital View

- *Human Capital*: Knowledge in employees' mind (BP mini-case)
- *Structural Capital* :
 - Knowledge embedded in organizational artifacts
 - Knowledge representations in documents (patents, problem solving descriptions – different documents than reports; Accenture case)
 - Invented work procedures/processes (Pharmaceutical co.)
 - Knowledge embedded in technology (any), production floor design, products
 - Innovation Potential (e.g., educational facilities)



Edvinsson & Malone, Realizing Your Company's True Value by Finding Its Hidden Brainpower, 1997

Knowledge Management Cycle

- Knowledge management refers to activities from knowledge generation to discarding.
- Similar to data/information management (Ch. 7) but strong human aspect and using some specific technologies



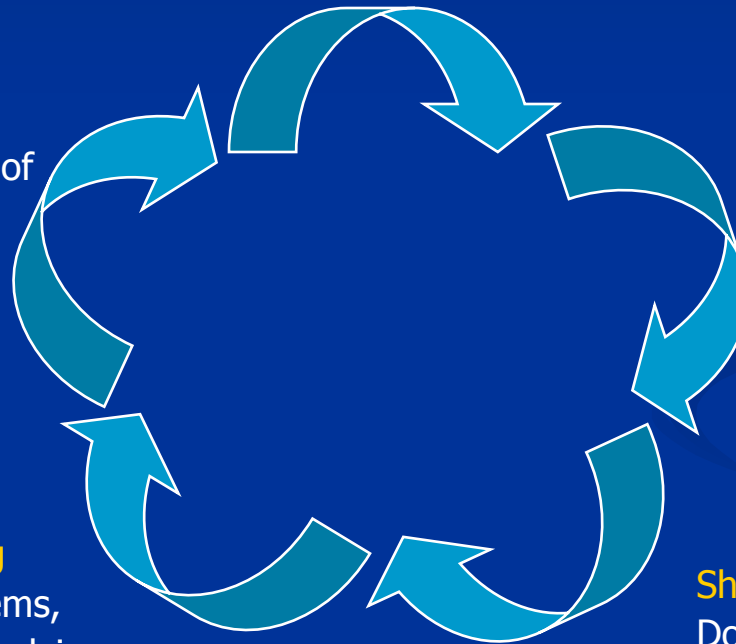
Technology for Knowledge Management

Generating:

- **Creating** (Computer Aided Design, Artificial Neural Networks)
- **Capturing** (from own experts; Expert Systems, Case-Based Sys.)
- **Collecting** (Patent & other databases, Internet)

Updating
(making the content of
knowledge support
systems current)

Utilizing
(using Expert Systems,
Case-Based Sys.; studying
knowledge documents)



- **Codifying & Organizing**
(structuring, classifying & indexing in
Document Management Systems,
Locators/Maps, Wikis, Expert
Systems, Case-Based Systems)

Sharing
Document Management Systems,
Comm. Sys., GSS, educational tech.)

See next



Technology for Knowledge Management

- Artificial neural networks (detect patterns in data; p. 442-3, see diagram)
- Document management technologies with templates and search capabilities (capturing, codifying, organizing, communicating; Accenture case; TVA mini-case)
- Expert Systems (capturing; codifying/organizing; p. 440-1, Ch.12; Partners Health Care case, using)
- Case Based Systems (capturing, codifying/organizing, using, updating; p. 442, Ch.12)



Go back



*More on systems
discussed*

Messages for Change Leader

1. Turn to managing knowledge in your organization
2. Knowledge management team/champions should be promoted
3. Demonstrate value (financial & intangible) of capturing explicit and tacit knowledge
4. Consider both the people and technological aspects of knowledge management stimulate generation and sharing, train and motivate staff; capture knowledge in knowledge work systems (KWS) and organizational procedures
5. Create and manage governance of knowledge and KWS (Policies and Procedures)
6. Don't become victim of own knowledge – discard obsolete knowledge