

Summary of Knowledge Management articles

Knowledge discovery, capture and creation

Smith,-Linda-C

Bulletin-of-the-American-Society-for-Information-Science. January 1, 2000;
26(2): 11-12

Abstract: Presents highlights of the American Society for Information Science (ASIS) annual meeting held in Washington, DC in November 1999. Focuses on Track 1: Knowledge Discovery, Capture and Creation, as introduced by University of Illinois professor Linda Smith. Discusses what knowledge discovery means in the context of information systems, and outlines the range of techniques being used to support knowledge discovery. Introduces two different categorizations of knowledge that can serve as a framework for considering what types of knowledge are found through knowledge discovery techniques and what is omitted. Discusses text as raw material and data as raw material, and asserts that knowledge management in business settings is concerned with knowledge capture, finding ways to make tacit knowledge explicit, or creating expert directories to foster knowledge sharing through human-human collaboration.

Highlights and Discussion: Our group essentially wants to simulate the human-human interaction via a Database Discovery tool. According to this article, an expert system incorporates know-how gathered from experts and is designed to perform as human experts. Methods of knowledge acquisition include interviewing, protocol analysis, questionnaires and surveys, and observation and simulation. We need to use expert knowledge to make the DDT effective.

Knowledge management meets future information users.

Stratigos,-Anthea

Online-. January/February 2001; 25(1): 65-67

Abstract: Information centers, market intelligence, and learning are converging in today's leading organizations to form knowledge management (KM) functions. Many information professionals and market intelligence professionals feel that KM programs are still for the most part poorly-defined at best, and most characterize KM in their organizations as a free-for-all, with little overall leadership. Explains that this is true because KM has thus far focused on technology solutions, which is really only the first stage in a four-stage implementation that involves technology, content, process, and people's behavior. Outlines a four-stage model of KM, and discusses its implications for information professionals and their organizations.

Highlights and Discussion: Of these four stages (technology/enabler, content/the what, process/the how, and people's behavior) how much are we trying to do with the DDT? We want it to be the "enabler," but we want to do more than – simulate the process in response to behavior.

This article brought out a few points about search behavior – there is brand recognition (ex. Lexis/Nexis, Academic Universe), linear text is a preferred information source

Do we want to create “Brand recognition” for the DDT? What pieces of the “process” can we simulate in the DDT?

Questions to keep in mind:

What factors govern the choices students make?

Are the students concerned with quality of information?

Do they know where they are when they discover quality content?

How much do they rely on libraries, librarians, and professors for guidance?

How high a priority is research for the population?

Who are the new players on the Web who can attract user attention?

Managing organizational knowledge as a strategic asset.

Bollinger, -Audrey-S(Pennsylvania-State-University, -DuBois, -PA); Smith, -Robert-D

Journal-of-Knowledge-Management. 2001; 5(1): 8-18

Abstract: Knowledge is a resource valuable to an organization's ability to innovate and compete. It exists within the individual employees, and also in a composite sense within the organization. According to the resource-based view (RBV) of the firm, strategic assets are the critical determinants of an organization's ability to maintain a sustainable competitive advantage. Combines RBV theory with characteristics of knowledge to show that organizational knowledge is a strategic asset. Discusses knowledge management as a mechanism for capturing and disseminating the knowledge that exists within the organization. Explains practical considerations for implementation of knowledge management principles.

Highlights and Discussion: Employee skills must be tapped.

Types of knowledge: Tacit vs. explicit – we need to tap tacit knowledge in a DDT.

Tacit knowledge is the unarticulated knowledge in a person's head that is often difficult to transfer. Includes lessons learned, know-how, judgment, rules of thumb, and intuition

Shared knowledge – cumulative & becomes embedded within an organization process, products services

Knowledge is a strategic asset – it's valuable, rare, includes personal interpretation, and you can substitute it.

Information overload causes frustration & demoralization because searcher cannot assimilate the amount of information

Tasks in managing knowledge: conceptualization, reflection, action, and review

Key questions: who needs to know what (what does an undergrad need to know vs. a prof or a grad student?) Where does the information reside? (Maybe we could have two major branches on a decision tree for the DDT – undergrad vs. grad?)

Author(s): Miller, Carmen L.
Title: Toni Emerson: the HIT (Human Interface Technology)
Lab's cybrarian.
coordinator of the Knowledge Base Project
Online (Weston, Conn.) v. 16 (Nov. '92) p. 26

This interview was brief, and dated, but provided the following sound bytes: “A machine is not good at inductive logic” “Extra 10% human in the loop...is irreplaceable.”

Knowledge discovery in databases.
Norton,-M-Jay
Library-Trends. June 1999; 48(1): 9-21

Abstract: Knowledge discovery in databases (KDD) revolves around the investigation and creation of knowledge, processes, algorithms, and the mechanisms for retrieving potential knowledge from data collections. Related issues include data collection, database design, the description of entries in the database using the most appropriate representation, and data quality. Presents an introductory overview of KDD, and discusses the rationale and environment of its development and applications. Reviews some issues related to database design and data collection.

Highlights and discussion: The Introduction to the special issue – importance of discovering implicit relationships

“Knowledge Discovery in Databases”
exploration, observation, description, analysis, synthesis, testing

Closing editorial – applied researchers want specific answers to detailed questions (are our users “applied researchers”?)

“Approaches suited to individual need” are required

Decision Advisor: a knowledge-based decision system.
Creswell,-Don

Information-Knowledge-Systems-Management. Autumn 2000; 2(1): 83-94

Abstract: To bring the extremely powerful process of decision analysis (DA) to a broader base of users, consultants and experts from Strategic Decisions Group (SDG) and Stanford University sought ways to link advanced computer technology with the DA process. With the support of a dozen major companies, SDG led development of Decision Advisor, an intelligent decision system which partially automates the DA process by coaching users through complex business analysis of individual projects and portfolios of projects. Gives an overview of Decision Advisor, and explains how it supports decision analysis and financial modeling of complex decisions. Designed for strategic R&D decisions, the system also supports capital allocation, development, and business decisions outside the

realm of R&D.

Highlights and Discussion: This article presents the structure of Database Advisor, one key portion of which is a Decision Tree. It's visual with many diagrams. I'm going to copy and send this one to the group.

Using technology to derive value from knowledge communities.

Wright,-Dan(AskMe-Corp-)

KnowledgeNets 2001 Collected Presentations

May 15-17, 2001, New York, NY

AB: To develop truly sustainable competitive advantage in the knowledge economy, companies need to capture, **catalog**, transfer, and institutionalize knowledge that precludes people's daily actions. Properly enabled communities foster knowledge sharing, and provide the cultural and organizational context for people to interact so they can create, transfer, and apply knowledge to situations that ultimately determine the success or failure of their businesses. Presents a case study to highlight the importance of aligning technology to business objectives, discusses effective methods of measuring results, and considers how to quantify return on investment.

Highlights and Discussion: A "knowledge community" is a group of people that share knowledge to address business issues. (Adapt phrase to fit academics). Well-knit knowledge communities foster faster innovation and have higher quality output. In a knowledge community, the goal is to bring together process, technology, people, and the local/organizational culture. Understanding the influence of culture is key. You must capture, transfer, and store expertise.