



KNOWLEDGE MANAGEMENT: A SKEPTIC'S GUIDE

CHARLOTTE LINDE

NASA Ames Research Center

Charlotte.Linde-1@nasa.gov





What is Knowledge Management?

New Business Movement (Fad du Jour)?

- business process re-engineering
- core competency
- rightsizing (downsizing)
- vertical integration

An Intuition Looking for Definition and Implementation?



Why Manage Knowledge? The Presenting Problems

“People are walking out the door and taking their knowledge with them.”

- Downsizing**
- Retirements**
- Movement of employees from civil service to contractor status**

Reinvention: “if only we knew what we knew”

Difficulty of retrieving stored information

Inconsistencies in classification of stored information



What Gets Called Knowledge Management?

• Various types of data bases

- Lessons learned data bases**
- Best practices data bases**
- Expert systems**
- Standard data bases**

• Tools for Document Management and Sharing

- Document repositories, collaborative authoring tools**



What Gets Called Knowledge Management? (con't)

Tools for Collaborative Work: “Groupware”

- Lotus Notes
- Video conferencing facilities
- Shared whiteboard systems
- Scheduling and calendaring tools

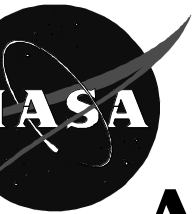
Systems for Providing Training

- Computer-Based-Training
- Web-based training with interactive chat rooms
- Just-in-time training embedded within computer programs



What Gets Called Knowledge Management? (con't)

- **Expertise and Skills Registries**
- **Web-Based Information Portals**
- **FAQs**
- **Decision Support Systems**
- **Data Mining Tools**
- **Information Search and Retrieval Tools**



Attempts to Rethink Assumptions about Knowledge

- **Knowledge as a fundamental corporate asset**
- **Knowledge as a decontextualized object versus knowledge as tacit and social**
- **Knowledge as residing in the individual or the institution**



What is Knowledge?

NASA KM Team Working Definition of Knowledge

Knowledge Management is getting the right information to the right people at the right time, and helping people create knowledge and share and act upon information in ways that will measurably improve the performance of NASA and its partners.



Knowledge Management and Institutional Memory

- Who remembers: an institution or the individuals who comprise the institution?
- What does an institution remember with?
 - Its individuals (see Acquisition paper)
 - Its communities of practice
 - Its forms, procedures, file cabinets, data bases



Knowledge Management and Culture

- Common Statement “Culture is 80 (90)% of the knowledge management problem.”
- Common Action “However, let’s build something”
 - KM has its roots in information technology
 - There’s money in selling technologies
 - It’s easier to build a system than to change a culture



To solve a social problem, it's easier to call for cultural rath than organizational change

Cultural change does not seem to require change in rules, organizational structure, fundamental promotion and reward system.

Calling for cultural change appears to be less radical and dangerous than calling for a structural change



Will the Knowledge Management Effort Succeed?

Will the Knowledge Management Movement Deliver on Its Promises?

Will efforts at Knowledge Management be casualties of the economic downturn?

Will the NASA Knowledge Management Team Succeed in developing a knowledge sharing culture?

KM team is aware that there are cultural issues in managing knowledge

How do you change a culture? How does a culture change as conditions change?

Work in Progress: Watch this space



BACKUP:

Metrics for Valuing Intellectual Capital

I.e. Knowledge

- 1. Number of full-time permanent employees.**
- 2. Full-time permanent employees as percentage of total employment. This shows the size of the core group.**
- 3. Average age of full-time permanent employees.. In this core group, as opposed to the company overall, youth may not be an advantage. The conveyance of corporate philosophy is typically done best by older employees.**
- 4. Average years with company of full-time permanent employees..**
- 5. Annual turnover of full-time permanent employees.. This is a critical factor. A company bleeding core veterans is one at great risk.**
- 6. Per capita annual cost of training, communication and support programs for full-time permanent employees**
- 7. Full-time permanent employees. who spend less than 50 percent of work hours at a corporate facility.**



8. Number of full-time temporary employees..
9. Per capita annual cost of training and support programs for full-time temporary employees.
10. Number of part-time employees and non-full-time contractors.
11. Per capita annual cost of training, communication, and support programs for part-time employees, and non-full-time contractors.
12. Percentage of company managers with advanced business degrees, advanced science and engineering degrees, and advanced liberal arts degrees.
13. Percentage of company managers of different nationality than the company registry. Diversity does not include only gender.
14. Company managers assigned to full-time permanent employees, to full-time remote employees, to temporary employees, to contractors. Number of different languages and cultures/total staff.

Intellectual Capital: Realizing Your Company's True Value by Finding its Hidden Brainpower. Lief Edvinsson and Michael Malone. HarperBusiness 1997, p.p. 8 - 9)