KM introduction

- Although knowledge is increasingly being viewed as a commodity or an intellectual asset,
- it possesses some paradoxical characteristics that are radically different from those of other valuable commodities.
  - These knowledge characteristics include the following:
  - Use of knowledge does not consume it.
  - Transferal of knowledge does not result in losing it.
  - Knowledge is abundant, but the ability to use it is scarce.
  - Much of an organization's valuable knowledge walks out the door at the end of the day.

- The advent of the Internet and the World Wide Web have made unlimited sources of knowledge available to us all.
- Pundits are heralding the dawn of the Knowledge Age supplanting the Industrial Era. Forty years ago, nearly half of all workers in industrialized countries were making or helping to make *things*; today that proportion is down to 20% (Drucker, 1994; Bart, 2000).
- Labor intensive manufacturing with a large pool of relatively cheap, relatively homogeneous labor
- hierarchical management has given way to knowledge-based organizations.
- There are fewer people doing more work.
- Organizational hierarchies are being put aside as knowledge work calls for more collaboration.
- The only sustainable advance a firm has comes from what it collectively knows, how efficiently it uses what it knows, and how quickly it acquires and uses new knowledge (Davenport and Prusak, 1998).
- An organization in the Knowledge Age is one that learns, remembers, and acts based on the best available information, knowledge, and know-how.

- In other words, in order to be successful in today's challenging organizational environment, companies need to learn from their past errors and not reinvent the wheel again and again.
- Organizational knowledge is not intended to replace individual knowledge but to complement it by making it stronger, more coherent, and more broadly applicative.
- Knowledge management represents a deliberate and systematic approach to ensure the full utilization of the organization's knowledge base, coupled with the potential of individual skills, competencies, thoughts, innovations, and ideas to create a more efficient and effective organization.
- The Iaccoca Institute found that "CEOs, when asked how much of the knowledge that is available to the organization is actually used, responded 'only about 20%.'
- Yet if this figure represented average utilization of production capacity, it would only be acceptable to the most foolhardy CEOs"

KM Definition

- Knowledge management (KM) was initially defined as the process of applying a systematic approach to the capture, structure, management, and dissemination of knowledge throughout an organization in order to work faster, reuse best practices, and reduce costly rework from project to project (Nonaka and Takeuchi, 1995; asternack and Viscio, 1998; Pfeiffer and Sutton, 1999; Ruggles and Holtshouse, 1999).

- Some typical knowledge management objectives are to:
- Facilitate a smooth transition from those retiring to their successors who are recruited to fill their positions.
- Minimize loss of corporate memory due to attrition and retirement.
- Identify critical resources and critical areas of knowledge so that the corporation
- “knows what it knows and does it well—and why.”
- Build up a toolkit of methods that can be used with individuals, with groups, and with the organization to stem the potential loss of intellectual capital.

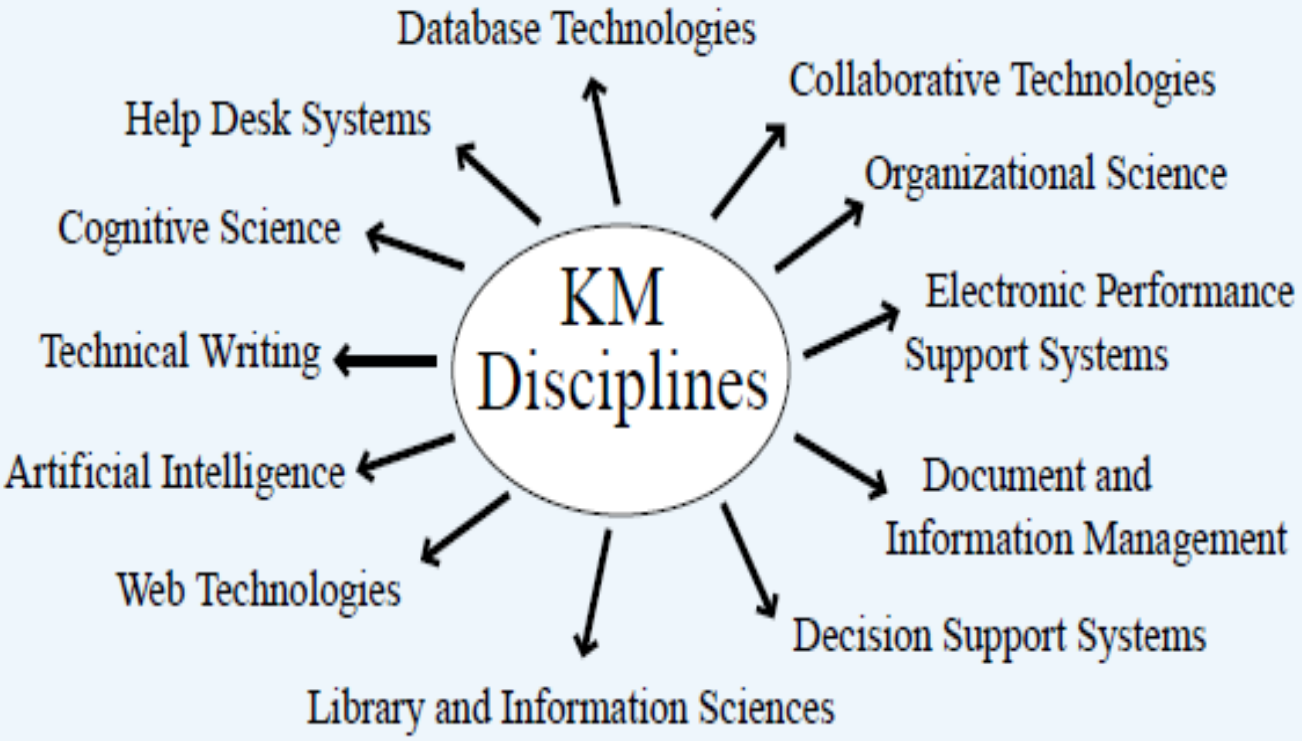
Multidisciplinary Nature of KM

Knowledge management draws upon a vast number of diverse fields such as:

- Organizational science.
- Cognitive science.
- Linguistics and computational linguistics.
- Information technologies such as knowledge-based systems, document and
- information management, electronic performance support systems, and database technologies.
- Information and library science.
- Technical writing and journalism.
- Anthropology and sociology.
- Education and training.
- Storytelling and communication studies.
- Collaborative technologies such as Computer Supported Collaborative Work and groupware, as well as intranets, extranets, portals, and other web technologies.

FIGURE 1-1

THE INTERDISCIPLINARY NATURE OF KNOWLEDGE MANAGEMENT



Popular examples to distinguish data from information and from knowledge include the following

- Data: Content that is directly observable or verifiable; a fact—for example, listings of the times and locations of all movies being shown today— I download the listings.
- Information: Content that represents analyzed data—for example, "I can't leave before 5 so I will go to the 7:00 P.M. show at the cinema near my office."
- Knowledge: At that time of day, it will be impossible to find parking. I remember the last time I took the car I was so frustrated and stressed because I thought I would miss the opening credits. I'll therefore take the commuter train. But first I'll check with Al. I usually love all the movies he hates so I want to make sure it's worth seeing!

The Two Major Types of Knowledge

- Tacit knowledge is difficult to articulate and also difficult to put into words, text, or drawings.
- In contrast, explicit knowledge represents content that has been captured in some tangible form such as words, audio recordings, or images.
- Moreover, tacit knowledge tends to reside "within the heads of knowers," whereas explicit knowledge is usually contained within tangible or concrete media.

TABLE 1-1

COMPARISON OF PROPERTIES OF TACIT VS. EXPLICIT KNOWLEDGE

Properties of Tacit Knowledge	Properties of Explicit Knowledge
Ability to adapt, to deal with new and exceptional situations	Ability to disseminate, to reproduce, to access, and to reapply throughout the organization
Expertise, know-how, know-why, and care-why	Ability to teach, to train
Ability to collaborate, to share a vision, to transmit a culture	Ability to organize, to systematize; to translate a vision into a mission statement, into operational guidelines
Coaching and mentoring to transfer experiential knowledge on a one-to-one, face-to-face basis	Transfer of knowledge via products, services, and documented processes

The Concept Analysis Technique

The concept analysis approach rests on obtaining consensus on three major dimensions of a given concept :

- 1. A list of key attributes that must be present in the definition, vision, or mission statement.
- 2. A list of illustrative examples.
- 3. A list of illustrative non-examples

following key attributes of knowledge management:

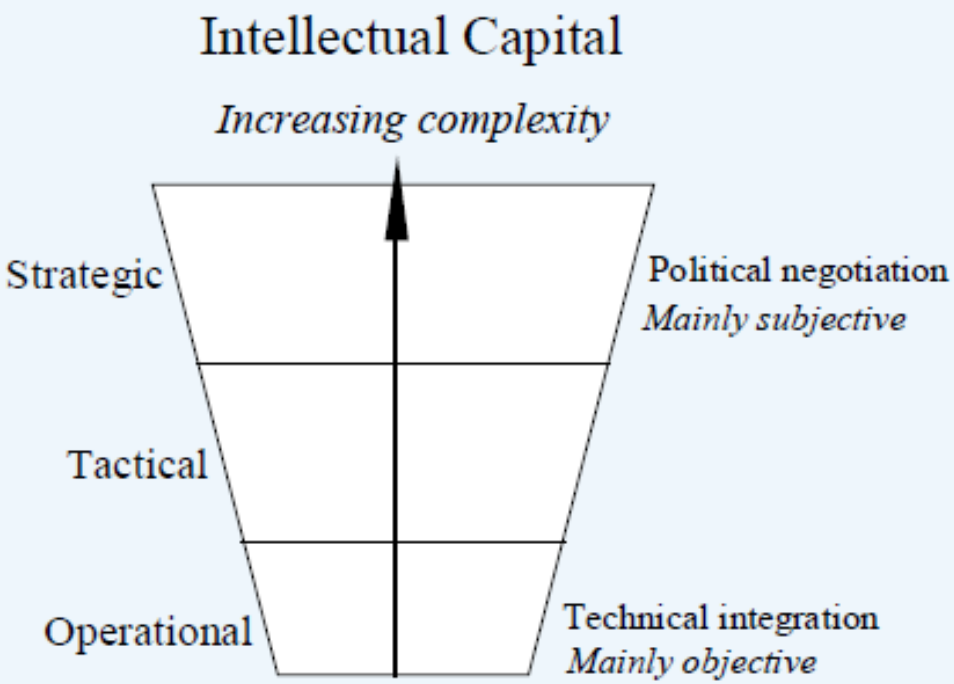
- Generating new knowledge.
- Accessing valuable knowledge from outside sources.
- Using accessible knowledge in decision making.
- Embedding knowledge in processes, products, and/or services.
- Representing knowledge in documents, databases, and software.
- Facilitating knowledge growth through culture and incentives.
- Transferring existing knowledge into other parts of the organization.
- Measuring the value of knowledge assets and/or impact of knowledge management.

HISTORY OF KNOWLEDGE MANAGEMENT

FIGURE 1-3

A SUMMARY TIMELINE OF KNOWLEDGE MANAGEMENT

FIGURE 1-5
THREE LEVELS OF INTELLECTUAL CAPITAL



WHY IS KM IMPORTANT TODAY?

- The major business drivers behind today's increased interest in and application of KM lie in four key areas:
- 1. *Globalization of business*. Organizations today are more global—
- multisite, multilingual, and multicultural in nature.
- 2. *Leaner organizations*. We are doing more and we are doing it faster, but we also need to work smarter as knowledge workers, adopting an increased pace and workload.
- 3. "*Corporate amnesia.*" We are more mobile as a workforce, which creates problems of knowledge continuity for the organization and places continuous learning demands on the knowledge worker.
- We no longer expect to spend our entire work life with the same organization.

- 4. *Technological advances*. We are more connected. Advances in information technology not only have made connectivity ubiquitous but have radically changed expectations. We are expected to be “on” at all times, and the turnaround time in responding is now measured in minutes, not weeks.