IMS3012
Knowledge Management

Lecture 1
Introduction
Dr. Henry Linger

Unit Organisation - IMS5330 & IMS3012
Lecturer: Henry Linger
TL30
henry.linger@infotech.monash.edu.au

- Unit organisation-IMS5330
  - 2 hour Lecture
  - 1 hour Tutorial
- Reading Material
- Assessment
  - Class test 40%
  - Assignment 50%
  - Participation 10%

- Unit organisation-IMS3012
  - 1 hour Lecture
  - 1 hour Laboratory
  - 1 hour Tutorial
- Reading Material
- Assessment
  - Unit Exam 60%
  - Assignment 40%

Unit Aims and Objectives

- Aim
  - to build a basic understanding of KM through a range of techniques for utilizing personal and organizational knowledge to achieve organizational effectiveness and efficiency
- Objective
  - to understand the issues involved in implementing KM systems in an organisational setting
Unit Scope

- The unit will be issues based
  - a number of issues will be discussed as (artificially) self-contained topics
  - the issues will overlaps
  - recurrent issues will be identified
- At the conclusion of the unit you will be able to;
  - understand the current views on KM systems development;
  - contribute to the KMS development teams;
  - provide advise and options relating to KM implementation;
  - illustrate your advise with technical solutions

Unit Outline - KM in Action

Information and Knowledge

Information
- is raw material for production of knowledge - Alavi, 1997
- is the flow of messages or meaning which may add to, restructure, or change knowledge - Muchup, 1983
- is data endowed with relevance and purpose. It is static and passive.

Knowledge
- takes place within a context of information and involves a mix of insights, framed experiences, values, judgments and ideals. It is dynamic because it triggers ideas and actions - Davenport and Prusak, 1998
- (Human knowledge is understood as) a family of classification patterns related to a specific part of a real or abstract world - Slowinski, 1992
Knowledge dimensions

- Tacit knowledge = Analog knowledge
  - deeply rooted in experience, ideas, values and social activity
  - highly personal, subjective, hunches, intuition
  - hard to formalize and communicate
  - technical: ‘know-how’ of the craftsman
  - cognitive: ingrained mental models
  - has not yet been abstracted from practice

- Explicit knowledge = Digital knowledge
  - Formally articulated knowledge, typically in documentary or digital format
  - This is the knowledge of rationality
  - It is formal and systematic, and often sequential.
  - It is expressed in words and numbers.

A Guiding Principle

Knowledge - (the knowledge of something) is the ability to form a mental model that accurately represents the thing as well as the actions that can be performed on it and by it

Sowa, 1994

Knowledge Management
(Monashe SIMS Definition)

Knowledge Management is a broad concept that address the full range of processes by which an organisation deploys knowledge. These involve the creation, acquisition, distribution and use of knowledge by the organisation.

Frada Buskien and Henry Linger
What is an Information System

"An arrangement of people, data, processes, interfaces and geography that are integrated for the purpose of supporting and improving the day-to-day operations in a business as well as fulfilling the problem solving and decision making needs of managers"

Whitten and Bentley, 1998, p706

The IS Development Process

- Development as a Waterfall
  - Pros: easy to understand and follow, forces planning up front
  - Cons: fairly rigid, many changes may cause project to stop
  - Reality ...

Modified Waterfall Model

The Modified Process

Spend more time in the first few stages of the waterfall model and iterate a few times exploring goals and requirements of the site before entering the design and implementation
Knowledge Management Lifecycle

- Creation and Acquisition of Knowledge
- Communication and Collaboration
- Knowledge Storage and Organization
- Research and Retrieval
- Revision and Distribution

H. Shauer, 2002

Software for Knowledge Management

- Online-Cooperation
- CSCW
- Work Coordination

- OLAP
- Intra-/Internet-Standards
- User Modelling
- Content Management

- Enterprise Modelling
- Editorial Systems
- Workflow Mgt.

H. Shauer, 2002

Knowledge Management Systems (KMS)

- A system for managing the gathering, refining, analysing and disseminating of knowledge in all its forms within an organisation.

- A system that supports organisational functions while addressing the needs of the individual within a purposeful context.

- A socio-technical system to support the processes by which an organisation deploys knowledge.

Charles Jackson (IBM)

Lecture 1
IMS3012-Semester 2, 2005
KM Systems – are they real?

- KMS is an ICT system in the sense of an application system or an ICT platform that combines and integrates functions for the contextualised handling of both explicit and tacit knowledge, throughout the organization or that part of the organisation that is targeted by a KM initiative.
- KMS supports network of knowledge workers in the creation, construction, identification, capturing, acquisition, selection, valuation, organization, linking, structuring, formalization, visualization, distribution, retention, maintenance, refinement, evolution, accessing, search and last but not the least the application of knowledge the aim of which is to support the dynamics of organisational learning and organisational effectiveness.

Maier, 2001

KM Framework: A Process View

Alavi, 1997

The KM toolkit: Road Map for this Unit

The first phase: evaluation of the infrastructure and aligning knowledge management and business strategy.

The second phase: KMS system analysis, design, and development.
- Knowledge audit and analysis.
- Designing the KM team.
- Creating the KM system blueprint.
- Selecting KM technology.
- Developing the KM system.

The third phase: KMS deployment.
The final phase: measuring ROI and performance evaluation.

Amrit Tiwana, 2002
References