

INFS2010: PEOPLE, INFORMATION AND KNOWLEDGE

FINAL EXAM NOTES

WEEK 1: INTRODUCTION TO KNOWLEDGE MANAGEMENT

Understanding Knowledge

- The condition of apprehending **truth** or **fact** through **reasoning**
- Acquaintance with or **understanding** of a science, art or technique
- The fact or condition of **having information** or of **being learned**
- **Expertise**, and **skills** acquired through experience or education

The Digital/Knowledge Economy

- Technological developments facilitate connectivity and collaboration across geographical, cultural and business contexts
- Enhance flexibility, innovation and competitiveness
- Knowledge is the main commodity and basis for services

Drivers	Implications
<ul style="list-style-type: none">- Ubiquity of computing e.g. networked mobile devices, smartphones, IoT- Advancement of technology e.g. computing power, storage, transmission capacity- Growth in information production	<ul style="list-style-type: none">- Knowledge service jobs more common- Work relies on and produces information or knowledge- Knowledge resources more important than material resources- Competitive advantage sourced from knowledge-based services not material goods

Knowledge Management

- Deals with the cultivation, sharing and utilisation of organisational expertise, skills and experience
- Not purely technological as, knowledge is not easily separable from the individuals who possess it
- Main challenges:
 - o How to get people to share their knowledge?
 - o Can tacit knowledge be readily shared?

Perspectives on Knowledge

As objective truth	As involvement
<ul style="list-style-type: none">- Mind and body are ontologically distinct: body is material; mind is a non-material entity- Body is perceived through senses, which are unreliable- The only thing that cannot be doubted is thought: "I think therefore I am"- Gaining knowledge through separation of object from subject; rational reasoning; removal of emotions or subjective perceptions	<ul style="list-style-type: none">- Being-in-the-world: we are always already in-the-world- True knowledge comes from involvement: using and acting in the world, not reflecting on it- "Equipment whole": things become meaningful only in relation to other things- "Involvement whole": actions and events meaningful only in relation to other actions and events

Tacit Knowledge: the notion that knowledge is deeply personal, entrenched in embedded skills where knowing consists of:

- subsidiary particulars
- focal target
- a personal linking the two

Evolution of Knowledge

Novice	Recognition of objectively defined and context free elements; application of context free rules to those elements	e.g. shift to 2 nd gear at 30kph
Advanced Beginner	Based on experience in concrete situations, starting to recognise situational elements of a task	e.g. listening to sound of engine on a hill
Competence	We execute task with a goal in mind. We develop hierarchical procedure of decision-making.	e.g. when in a rush we ignore safety, courtesy
Proficiency	Based on previous experience, the environment is recognised holistically and intuitively, not by analytically combining elements when analytic choice of action is taken	e.g. knowing you are driving too fast in the rain
Expertise	Deep involvement in a situation where one grasps the environment and acts holistically and intuitively. There is no process of conscious deliberation or decision making.	e.g. expert drivers act on previous experience subconsciously

Data, Information, Knowledge

Data	Context free sequence of items or events.
Information	Context based sequence of items or events.
Knowledge	<p>Involves judgment of significance from a particular context and is informed by values and beliefs and is action-oriented.</p> <ul style="list-style-type: none"> - Involves the capacity to exercise judgment and draw distinctions between things - Expressed through language - Increasing knowledge leads to more refined distinctions - In a social context: distinctions in the community using our body of knowledge and through a socialisation process

Organisational Knowledge: behavior in organisations is based on abstract principles meant to achieve goals, these principles guide action within organisations

- Organisational structure
- Organisational roles
- Business processes

WEEK 2: CREATING KNOWLEDGE IN ORGANISATIONS

Knowledge Creation: organisations need to generate new knowledge and information to redefine problems and solutions, so they can innovate and prosper in competitive markets.

- Organisations are **information-processing machines** where people are the decision-makers
- Organisations are arenas for **sensemaking** where people make sense rather than make decisions and knowledge is subjective and contextual

Types of Knowledge

Explicit (know-what)	Tacit (know-how)
<ul style="list-style-type: none"> - Objective, universal facts (information) - Gained through rational reasoning - Quantifiable, codifiable, and transmittable in formal language 	<ul style="list-style-type: none"> - Subjective, individual insight or capability (cognitive or physical) - Gained through indwelling and experience - Difficult to communicate

Knowledge Creation

Socialisation	Tacit to Tacit	Sharing experiences and joint activities to create a new mental model and/or skills. Not structured.
Externalisation	Tacit to Explicit	Using metaphors, analogies, models to articulate tacit knowledge e.g. $E=mc^2$. Promotes interaction discussion, collective reflection.
Combination	Explicit to Explicit	Combination and reconfiguration of existing information through sorting, segmentation or integration of explicit knowledge. Provides a new perspective.