Selecting Knowledge Management Systems

- A Case study in Health Care
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KMS: the product explosion

“Over the past few years there has been a rapid growth of technologies that their vendors characterize as knowledge management software.... It is fair to say that no single product offering satisfies all of the organization's KM needs”

(Hosapple & Jishi 1999)

- The KMS market is predicted to expand to US$1 billion by 2002
- Knowing what to do and what to look for is beyond the core competencies of many organisations

Case Study

- Centre for Clinical Effectiveness, Monash Medical Centre
- A specialist information service dealing with evidence based practice questions
- Searches, sifts, retrieves, appraises and evaluates information on behalf of practitioners
- During this process explicit information is turned into knowledge, it is contextualised and translated into a useable format
- Dealing with large and small questions which require several days to several weeks to complete
- Large amounts of time and resources put into answering questions

Initial methodology

- SSM Soft Systems Methodology
- falls within an action research framework
- analysing the social situation
- therapeutic stage involving change
- explores the notion of 'purposeful human activity'
- validates worldviews and affirms an interpreted view of reality

The Problems

- Evidence based health care is a work and knowledge intensive process
- Skills needed to be evidence based may not exist in all organisations or clinicians
- Often knowledge workers (in many forms) are used to carry out much of this work
- Knowledge doing the job is lost along the way, it could be better utilised
- New area of expertise and it is difficult to understand the processes involved, or even where knowledge is generated

Evidence based health care

- Using good quality evidence in decision making
- Not all end users are doing it for themselves
- Intermediaries have a role to play in turning information into knowledge for decision makers
- Converting information into knowledge is the core activity;
- Significant knowledge and experience required to perform task
- Knowledge rich area of work
- Need to intelligently use large volumes of material to perform task
Which tools for which problems? (Skryme 1999)

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Cognitive tools

- Intelligent agents
- Experts systems
- Case based reasoning
- Thesaurus management
- Workflow software
- Thesaurus management
- Intelligent agents

Informing decision making

- Conditional information
- User oriented presentation
- Filtering according to profiles
- Relevance ranked searches
- Relevance ranked searches
- Email filters
- Intelligent agents

Decision support: meeting

- Mapping
- Idea generation and visual mapping
- Decision support:
  - Meeting support
  - Meeting support
  - Meeting support

Future

- Hard copies
- Hard copies
- Hard copies
- Hard copies

Functionality

- Easy to record
- Without too much extra
- Keying in
- Searchable format with
- Linking to
- Similar KW's

Is a natural progression from SSM

SISTeM Soft Information Systems and Technologies Methodology

"operational decision making and bringing about the integration of organisational, information and technological changes within the situation" (Atkinson 2000)

Helps us understand human-machine interactions and what is needed for a KMS in the case study

Interactive loans

- Ad hoc
- System, tick
- Lists, pink slips
- As reminder, no system

- Electronic
- Reporting and
- Updating via
- Email, daily
- Available for
- Management

- Email
- Remarks, some
type of
database to
- Keep log of
- What type/
- How much
- (Currently kept
- By library, but
- Not shared
- Systematically
type by CCE)

- Web based
- Searchable,
- Word documents
- In shared format
- For searching
Coming up with a solution

That is:
- systematically desirable
- culturally feasible
- organisationally value adding
- informationally and technically feasible
- ethically defensible

Conclusion

"many organisations try to build KM programs and architectures before building the cultural collaborative or business foundations for these programs... they are of little value unless tied directly to easily seen business benefits"

(Coleman 1999)

Using the selection tools as generic criteria for exploring functionality of a range of products

Next Steps

- Measure a range of KMS against the criteria
- Use SISTeM Cycle 2 to implement a KMS
- Develop a generic tool that can be used across a range of industries