Integrating KM Tools into Your Existing IT Infrastructure

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Topics

- The problem with “KM Tools”
- What does it really mean to manage knowledge?
- What does it mean to integrate with an IT infrastructure?
- What about integrating with the business infrastructure?
- A short list of integration principles

The Problem with “KM Tools”

- Everything is a KM Tool
- Nothing is a KM Tool
- “KM Tool” is an oxymoron
- What’s a tool?

What does it Really Mean to Manage Knowledge?

- Make investment decisions
- Assess basic KM philosophy
- Settle on appropriate Knowledge Engineering (KE) strategy

Making Investment Decisions

- Get everyone engaged
- Figure out what problem you're trying to solve and what problems you're not solving
- Determine how you will know when the problem is solved
- Identify major constraints, issues, and barriers to change
- Develop strategies for dealing with issues

Assessing KM Philosophy

- Engineered
  - Specific objectives, linear train track, no change
- Dynamic
  - Don’t fully understand problem or solution
  - Some learning involved
  - Balance of competing objectives unstable
- Organic
  - Not sure of objectives
  - Don’t want to pin then down
  - Creative, elaborative change and/or adaption

Clarifying KM Philosophy

- Reality is that likely to see a mix of engineered, dynamic, and organic themes
- Segment and differentiate
- Give each goal and subgoals clear objectives in only philosophical area
- Segment change along philosophical lines

Determining KE Strategy

- If Engineering
  - Behavior-based engineering of K flows
  - Define performance targets and work back
- If Organic
  - Artifact-based engineering of K assets
  - What K can be stored in databases and embedded in documents?
- What is the meaning of information?

Integrating with an Existing IT Infrastructure

- Really integration with or migration of?
- Biggest barrier usually isn't technology
- I don't know your context
- Rarely find an existing infrastructure
- Tactical solutions often lack generalized functionality

What about Integrating with the Business Infrastructure?

- Why was this left out?
- A lot of Knowledge can’t be digitized
  - Tacit & Implicit
- A lot of tools aren’t automated
  - Methods & Practices
- Which stabilizes first?
  - Process
  - Technology

A Short List of Integration Principles

- Software-based integrations are risky
  - APIs, messaging protocols, etc.
  - Too little, too late
- Artifact-centric tend to be safer
  - K representation standards (e.g., XML)
  - Semantic issues (precision, consistency)
- Unidirectional transfers safest (relative richness)

A Short List of Integration Principles

- Segment semantics and behavioral rules
- Formalized Ontologies
  - Terms
  - Semantics
  - Rules
- Isolate volatility
  - Abstraction
  - Indirection

A Short List of Integration Principles

- Use detained transformation models
  - Integrate the behaviors of
    - Automated agents
    - Individual agents
    - Organizational agents (programs & projects)
  - Isolate K requirements and functional dependencies
- Don’t overload semantics, use semantic transformations across behavioral domains