10-Step / 4-Phase

Phase 2 and Steps 6, 7 & 8

Creating the Knowledge Management System Blueprint

Developing the Knowledge Management System

KMT-10 - 12
Creating the KM System Blueprint

• Develop the KM Architecture
• Understand and select architectural components
• Design for interoperability, performance, scalability, user interfaces
• Repository life-cycle management
• Build-or-buy decisions and tradeoffs
• Future-proof the KM System
For Sustainable Competitive Advantage

- Systems that create, locate, capture, share K and bring that K to bear on new problems and opportunities in timely manner
- Real world – fragmented K; extremely difficult to find or share; contains inconsistent, redundant and disused K
- Whither the “stable” blueprint of KM
Lost Opportunities and KM Systems

- Traps to avoid: trying to explicate K that is not explicable; failing to explicate K that should be converted from tK to eK.
- Constraints of time and money – kinks
- KM system serves as an enabler for K sharing and links people, processes, culture and values
Knowledge Management Architecture (KMA)

- IT as an enabler for sharing, application, validation, distribution of K
- Challenge – which K should be made eK and which best left as it is tK???
- Rich media and rich communications ???
- KMA Components: Repositories, Collaborative platforms, Networks, Culture
The Knowledge Repository

- Information repository vs. K repository
  - Issues of content, context, and community
- Distributed content repositories – linked into an integrated repository
- Content provides the context – missing element ??? – most important
The Knowledge Repository

- **Declarative K**
  - Significant and meaningful concepts, categories, definitions, assumptions

- **Procedural K**
  - Processes, sequences of events and activities, actions

- **Causal K**
  - Rationale for decisions made or rejected or not made, eventual outcomes, and associated informal pieces (post-hoc analysis)

- **Contextual K (very important)**
  - Circumstances, assumptions, results of assumptions, informal stuff – video clips, annotations, notes, conversations
The Knowledge Repository

• Transparency of backend databases and data warehouses, versioning control, authoring controls, date controls
• What is valid vs. what is invalid?
• ‘Old news’ versus ‘Hot Insights’
• Conversation with a Publisher – who is ‘time shifting’ content – “timeliness, validity, truth value”
Integrative - Interactive Repositories

- Integrative repositories – Interactive Repositories
- top-down control – more loosening of control – more difficult to retain the structure
- E.g. AA Knowledgespace – 3,000 repositories of Lotus Notes databases – conversation with a consultant in Latin A.
- Managing content – addition, renewal, deletion, validation, versioning
  - Who does it?
  - How it will be done?
  - How frequently it will be done?
Managing Knowledge for e-Enterprise Performance

**RADICAL DISCONTINUOUS CHANGE**

**DESIGN FOR AGILITY, FLEXIBILITY AND ADAPTABILITY**

**INFO-PROCESSING MODEL**

**SENSE-MAKING MODEL**

**KNOWLEDGE MANAGEMENT**
for e-BUSINESS MODEL INNOVATION

**TIGHT SYSTEMS**
Optimization and Efficiencies

**LOOSE SYSTEMS**
Agility, Flexibility, and Adaptability

**KNOWLEDGE HARVESTING & EXPLOITATION**

**KNOWLEDGE CREATION & RENEWAL**

**In Control**

**Out of Control**

Engineering Design
‘Machine’ Focus

Communities
of Practice,
Customers,
Suppliers,
Partners

Emergence
‘e-Agility’ Focus

ERF, EAI, EEAI,
CRM, SCM,
Workflows, BPR,
Intelligent Agents,
Best Practices

INTEGRATION
OF DATA,
ACTIVITIES &
PROCESSES

In Control

Out of Control


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Content Centers

• Functional
• Business Intelligence
  – Who says what about whom
• Public, Trade and professional organizations, Investors and government agencies
• Knowledge Aggregation and Mining
Relating Information, Knowledge and Performance

Data → MEANING* → ACTION → Performance

Problems with “hits” in databases

How to get “meaningful” information that can facilitate “action”?

Role of computers, humans and agents?
More on Repositories

- Knowledge aggregation and mining
- Pattern recognition, agent-based retrieval, and thesaurii
- What is “KM Consulting”? ????
- Who should have ultimate choice of:
  - What is served as valid K?
  - How it is served?
  - How often it is served?
More on Repositories

- Skill Databases to K Directories
- Automated Categorization e.g. Autonomy
- Personalized Content and Push Delivery
- Use of Profiles or ‘snoop’ technology
- Amazon.com???
Collaborative Platform

- Collaborative filtering
  - Active versus Automated, combination
- Community Centered filtering
  - Epinions.com
  - Comparing car seats and cars on epinions
- Meta Knowledge – K about K
- Multiple degrees of context – “loose” interpretations of information
  - How IT can help
  - Technology Choices
Integrative and Interactive K Apps

- Integrative view and interactive view should operate simultaneously
- Explicated content vs. Explicitly Captured Content
- Integrative App Support – for evaluation, interpretation, and adapting K
- Top-Down vs. Bottom-Up, Prosumers of K, contrast with e-publishing
Managing Knowledge for e-Enterprise Performance

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Best Practices


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KNOWLEDGE PROCESS

Knowledge Utilization

FROM COMPLIANCE TO COMMITMENT

External Controls for Compliance

Self Controls for Commitment

Stable and Predictable Business Environment

Trust, Vision, Motivation, Leadership, Empathy

Goals, Rewards, Penalties, Carrots, Sticks

‘Wicked’ Business Environment

Customer Driven Virtual Communities

Supplier Coopetition in Business Ecosystems

Human Capital as Key Enabler

Knowledge Creation

Click on this hyperlink for Article on Knowledge Ecology
Interaction Complexity for K Apps

• As interaction complexity rises, biggest challenge is making the interactive KM components of system more social, cognitive, and behavioral and less technical in focus
More Stuff

• Build or Buy – No one answer
• Interoperability – Integration – Big issue
• Performance and Scalability
• User Interface Considerations
  – See useit.com
• Network View of KM
• Future Proofing of KM Systems
• On RDF, KQML and PICS
Developing the KM System

- Channels for tK and eK
- tK – Information – tK
- Contextual Expression at the Interface
- Browser as standard with TCL/tk and KQML wrappers.
- Platform Independence
- [Un]learning from intranets ??
Fallacy of KMT

- “Of the many possible choices, leveraging the existing intranet is the most feasible and effective approach…”
- An outdated and obsolete conception…
Fallacy of KMT

• “The top [interface] layer moves information in and out of the KM system. When this information is relevant, timely, and actionable, it represents knowledge…”

• An outdated and obsolete conception… Unless the user finds the information to be relevant, timely, and actionable and acts upon it… information is just what it is and nothing more… information!!
“Technology is not a precursor to knowledge but an enabler in situations that do not allow for face-to-face transfer of knowledge.”

Only with great caution must one emphasize the importance of the message or the medium over that of the transmitter and the receiver when talking of tacit K.
Fallacy of KMT

“News must have a surprise effect: the surprise effect of messages, news, etc., will be greater the less probable they are. The information is greater the less probable it is. In this sense, information is 'improbability.' The information of a signal is the measure for the improbability with which this signal occurs in a certain communication. The uncertainty is always largest when all signals appear with the same probability.”
Fallacy of KMT

• “The process or receiving and of using information is the process of our adjusting to the contingencies of the outer environment, and of our living effectively within the environment... That is, the more probable the message, the less information it gives. Cliches, for example, are less illuminating than great poems... If, however, the information which proceeds backward from the performance is able to change the general method and pattern of performance, we have a process which may be called learning...”
Developing the KM System

- Document Management through Interface layer
- DMA standards and WebDAV standards
- Customizability and Versioning Controls
- Virtual Private networks
- Biometrics and other security issues
Collaborative Filtering and Intelligence Layer

Tags and Meta Tags – RDF tags
Static to Dynamic Structures – Data finds you;
Search finds you – contrast with traditional hyperlinks and 404s

Automatic Full Text Indexing
See searchenginewatch.com

Automatic Meta Tagging - how automatic ???
From Client/Server to Agent Computing
Mobile Agents and Push and Pull
Bottom Line

“The biggest mistake that companies often make is that they assume that the intrinsic value of an innovation such as a knowledge management system will lead to its enthusiastic adoption and use.”
Prototyping and Deployment

- Rejection Insurance – Experiences
- “Chunks” versus “Wholes”
- Need for pilot KM deployment
- Select right nontrivial and representative pilot project (No lifeblood projects)
- Identify and isolate failure points
- KM System Life Cycle
- Avoid traps in RDI to maximize returns
Deployment of KM Systems

- Prototyping and Pilot Deployments
- Issues of Goal Congruence
- Motivating KM through “exchange”
- Beyond data warehouses and data marts
- RID – Adapted Waterfall Model – loops
- Big Bang Approach to Deployment
KM Development Methodologies

- Waterfall Methodology
- Information Packaging Methodology
  - Softer factors affecting system processes
- Big Bang Approach
  - Web Services, ASP
- Results Driven Incrementalism
  - Business Release
RDI Methodology and Business Releases

• Results driven incrementalism – Measurable results
• Logistics of “Doing” – Theory vs Practice
• Business Releases and Software Releases ??
• Good Idea, need better pragmatics
• Dividing Business and Technology Releases
RDI Methodology

• Steps Involved
• Traps in Selecting Business Releases
• Process Divisibility
• Human Barriers
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THE REAL STORY BEHIND RDI

AN INCREMENTAL PROCESS FOR SOFTWARE IMPLEMENTATION

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Knowledge Management Toolkit, The: Orchestrating IT, Strategy, ... 

Chapter 12, How to deploy the system using the results-driven incrementalism (RDI) methodology, select pilot projects, maximize payoffs, and avoid common ... 

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The workshop intrigued my interest in the RDI methodology and procedures. I feel the RDI could blend perfectly into any pre-existing ABA intervention. ... 

www.elija.org/Feedback.html - 13k - Nov. 10, 2002 - Cached - Similar pages

Amazon.com: buying info: Knowledge Management Toolkit, The: ... 

Second, the "results driven incrementation" (RDI methodology) is a sane implementation approach that starts with a pilot and grows from there. ...
Stay Informed: DM Review Magazine Archived Article
The Importance of Enterprise Categorization Systems

By Tom Hammergren

The profitability and market position of most companies are under attack. Forces such as an increasingly global economy, aggressive new competitors, new technology advances, deregulation and rapid changes in customer behavior are changing the way the world does business. Companies lacking the knowledge or understanding of these forces will have extreme difficulties expanding. The tool that will improve a company's ability to operate more intelligently and gain competitive insight on how best to operate in this