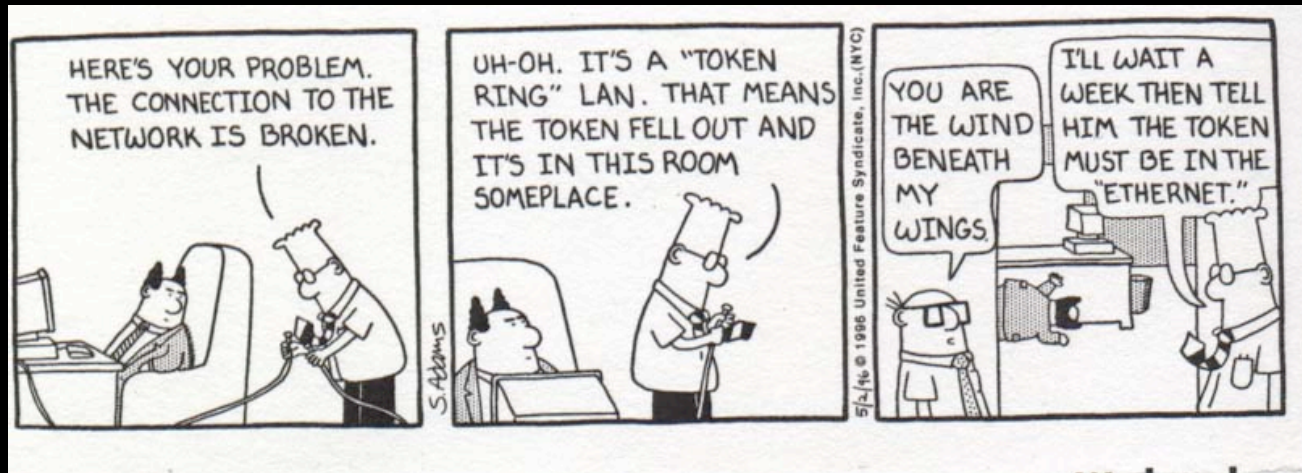


Repurposing Digital Objects ...

Seven case studies across the publishing
& information industries



a poster presentation at ASIS&T
Vancouver, BC, Canada
G Benoit, Lisa Hussey, Peishan Bartley

What to do with millions of digital objects?

- What do you do when your organization has millions of “digital objects” [any identifiable, organization-specific file, such as a book chapter, image, shoulder notes, etc.]?
- How to facilitate finding and reusing objects?
- What might be the consequences in work flow, organizational communication, web-based commerce?

7 Cases

- Seven cases:
 - 4 from international publishing firms
 - 1 museum system
 - 1 large private university research library
 - 1 large public research library

Method: Case Study

- Single investigator
- Cross-case study
- Case studies are used when there's no theory or a priori constructs when studying something
- Aim to provide descriptions; ultimately to test or to generate theory.
- Data: archives, interviews, questionnaires, observation

Eisenhardt, 1998; Yin, 1988

Lit Review: Tech & Change

- No research specifically about publishing, etc
- Responding to customer need changes
 - Iansiti et al, Clegg & al., Moad, Suwardy et al, 2003
- IT Investments don't meet professional objectives; 80-90% fail
 - Clegg et al, 1997
- Most problems are organizational (80-90%)
 - Sambamurthy & Zmud, 1999

Lit Review: Tech & Changes

- Top-down persistence to retain failed IT
 - McFarlan (1984); Proctor & Doukakis (2003)
- Top-down imposition of tech, especially externally recommended and poorly communicated increases resistance
 - Erdogan et al., 2008; Erodgan 2009; Ford, Ford, & McNamara 2002; Jarret 2004
- Middle managers' role - attempts at sense-making and emotional support with new IT
 - Balogun & Johnson, 2004; Huy 2002

Cases - Digital Repurposing

Publishing House (K-12)	VP, Managers, Editors, Staff	Interviews, Observation, Analysis, Training
Publishing House (College)	“ “	Interviews, Observation, Training
Publishing House (K-20)	“ “	“ “
Publishing House	“ “	“ “
University library system	Director, Dept Head, Unit Head, Staff	Observation, Interview
Museum (library, archive, museum, marketing)	Director, Web Master, Dept Heads, Staff	Interviews, Systems Analysis
Large public research library	Dept head, dept head, metadata librarians, staff	Interviews, Systems Analysis, Training

Baseline

- Executive separate from other staff
 - Decisions made w/o consulting
 - Imposition of new system caused crises
- Purchase of 3rd party CMS
 - Promises of interactivity but not delivered
- Data-centric orientation
 - But no understanding of technology, sharing data, classification, networked

Hierarchical structure

- Executives
 - CIO, emphasis on TopicMaps, OWL, RDF
 - Unrealistic expectations: categorically rejected human-created cataloguing or indexing
 - Emphasis on “ontologies”
 - Rarely met with managers
 - Goal to create JIT publishing in-house, then to create commercial products

Hierarchical structure

- Managers
 - Divided into silos by domain (history, US history, French, Spanish, German, Chemistry, Mathematics)
- “Editors” (front-line managers)
 - Production-oriented
 - Manage production staff
- Staff
 - Created own db solutions; ideosyncratic

Candidate solutions

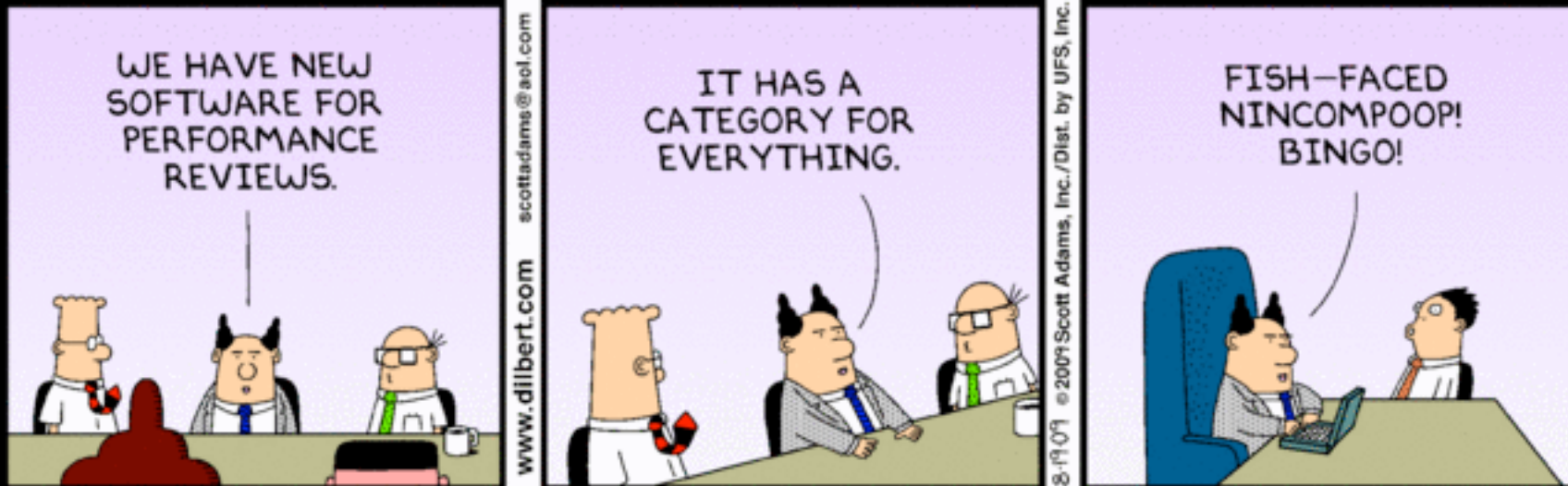
- Create of controlled vocabularies (“ontologies”)
- Proof-of-concept web-enabled systems
 - Demonstrate desired cataloguing tools
 - Drag-and-drop JIT publishing
- But conflicts arose ...

Conflicts

Group	Issue
Executives	Classification
	OWL, TopicMaps, RDF, DC
	Preserving earlier capital investment
	In-house JIT tools
	Integration with CMS
Management	Preserve dept-created systems
	Integrate dept-created systems with CMS
	Simplified rules for classification ("rule of 3")
	Upsetting current work flow
	Time set aside for training
Editors	Interruption of work flow
	Learning new systems
(fear in general)	Denigration of work (editorial --> production)

Conflicts

Group	Issue
Staff	Loss of work on dept-created digital objects
	Resistance to change; retraining
	Resistance to external consultants



Patterns

1. Change Processes

- Not well-communicated; new ways of dealing with objects, work flow, etc.

2. Organization Communication - Identity

- Job Threat: potential changes lead to “push back” - way to maintain relevancy
- Integrating dept data meant loss of control

Patterns

3. Intergroup Divisions

- Horizontal communication prevented
- Power Issues:
 - Younger vs. older staff (asking questions)
 - Physical space (isolation)
 - Control of Knowledge
 - Dept separated; data not networked
 - No opportunity to learn from mistakes

Patterns

4. Technology

- *Astounding* lack of knowledge
- From reliance on time-based, local knowledge (file name, who worked on project) to cataloguing schema
 - But refused to have human indexing; open to pilot test of automatic classification
- Belief copying data risked losing data
- New interface meant data & work loss

Patterns

5. Attitudes

- Org not seen as system
- Local (silo) view only

6. Misaligned Goals

- Executives: JIT, competitors
- Managers: production costs
- Editors: staff, production
- Staff: little oversight

7. Weaker Executives retreated

- Museum, Library, Univ Library
 - Erkhardt & Bourgeois, 1998

Conclusions?

- Build for failure
- Goals need to be expressed in groups/values
 - Editors & staff - systems facilitate and improves value
 - Easier 'cause they don't have to maintain small systems against other in-house forces
 - Executives - offer input opps to staff: they can input into system but they don't make the system

Conclusions

- Fear of change instead of recognizing as inevitable
 - conflict
 - trial & error
 - methods to address conflict
 - upper management feedback
- Original premise (tech solution) feasible
 - But need to grow from smaller models, not all-or-nothing approach

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The problem is greater than one would think
and the solution elusive.

Your ideas?

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