

Records management and librarianship traditions

Supporting information
architecture for intranet/portal
environments

Background

- Portal implementation
 - Oracle9iAS
 - “You need a taxonomy”
 - A what?
 - Framing the solution (terminology)
 - Oracle guidelines mapped with pre/post coordination
 - Information retrieval
 - A job for our librarians!
 - » (Milne, C. and MacCabe, D. 2004)
 - What citation order?
 - Subject approach not working out
 - *Function, activity, transaction?*
 - (Milne, 2007a)
 - Hypothesis tested (pilot)

Background

- Work experience + MSc
 - From taxonomy to information architecture
 - Are librarians shaping the (information retrieval) debate?
 - A role for records managers?
 - Functional classification
 - » UAD case study: JISC infoNET award 2008
- Re-visiting information retrieval
 - Wider debate incorporating functional approaches
 - Additional influence?
 - Developing a multi-disciplinary approach?

Demystifying taxonomy: classification revisited

Identify the track name here

USE ORACLE®AS PORTAL AS YOUR KNOWLEDGE EXCHANGE

Gail Wiegelt, Oracle Corporation
Bill Laskewitz, Oracle Corporation; Jerry Silver, Oracle Corporation

EXECUTIVE OVERVIEW

Knowledge exchange is the technological framework within which users create, locate and use explicit knowledge, or content. The most effective environment for a knowledge exchange system is an enterprise portal that provides users with a working environment that brings together the applications and information they need to do their jobs more effectively.

An enterprise portal that supports content management in conjunction with providing access to enterprise applications and information solves many customer problems and issues. Oracle®AS Portal provides a framework allowing you to perform content management without having to leave the enterprise portal. You manage content in the same place from which you access enterprise applications and information. The set of content management features built into Oracle®AS Portal enable you to create, maintain, publish and search business content.

To build a knowledge exchange portal you must first solicit requirements from the users and analyze the content. The results of your content analysis are one or more taxonomies that organize the content and a definition of the metadata that describes the content. Then you implement the knowledge exchange portal using Oracle®AS Portal functionality.

- Implement your primary taxonomy using pages/sub-pages, regions and tabs.
- Navigate your taxonomy through navigation pages and built-in item types.
- Implement your metadata through attributes, categories and perspectives. Categories and perspectives can also be used to implement alternative taxonomies or virtual taxonomies.
- Oracle®AS Portal allows you to publish various types of content to the portal. If the default item types do not completely satisfy your content requirements you can extend them create brand new item types.
- Finally, implement search capabilities in your knowledge exchange portal.

INTRODUCTION

In a world of ever-changing technology, global markets and expanding information resources, how can a corporation obtain and sustain its competitive edge? How can a company differentiate its products and resources in today's competitive markets? By enabling an innovative and productive work culture that leverages existing knowledge resources.

Specifically, the answer lies in an emerging initiative that is quickly gaining popularity and being adopted by companies around the world: *Knowledge management*. Knowledge management allows companies to effectively organize and manage both explicit knowledge, captured through systems and documents, and tacit knowledge, captured through the formation and support of professional communities.

A key aspect of knowledge management is *knowledge exchange*. Knowledge exchange is the technological framework within which users create, locate and use explicit knowledge, or content. The most effective environment for a knowledge exchange system is an enterprise portal. An enterprise portal provides users with a working environment that brings together the applications and information they need to do their jobs more effectively. Since managing content, such as business documents, is an important part of most jobs, the enterprise portal should offer content management functionality. The focus of this paper, then, is how you can use Oracle®AS Portal to build a knowledge exchange portal to support the management of explicit knowledge: to perform content management.

Specifically, this paper looks at how to:

- Obtain content requirements from users.

- Primary taxonomy
 - Pre-coordinate
 - Hierarchy Virtual taxonomy
- Virtual taxonomy
 - Post-coordinate
 - Metadata to support search
- Sayers, W. C. B. (1975.) *Sayers' manual of classification for librarians*. 5th ed. London: Deutsch.
- **A role for the librarian!**

Applying classification?

- Task 1: create a system of organisation
 - Repeatable model
 - Future proof
- What citation order?
 - Subject approach (lacking)
 - Administrative (ruled-out)
 - Subject + document type (?)

An alternative approach

- Classifying records and documenting their content?
 - Context not subject
- Widely documented and practiced
 - ISO-15489-1:2001
 - National Archives, National Archives of Australia
 - Shepherd & Yeo (2003)
 - Local government classification scheme (UK)

An alternative approach?

“Classification by function is based on the context of a record’s creation and use, rather than on the context of the record itself. This means the record will be classified according to why it exists – i.e., its function – rather than what it is about – i.e. its subject” (National Archives of Australia, 2003, p.7)

- Deliberately distanced from the (traditional) subject approach

Out of sight – out of mind!

- “To date, the contribution of archivists and records managers in developing taxonomies and associated information retrieval solutions appears to be understated in comparison with the perceived role of the librarian”

(Milne, 2007a, p.8.)

Function

- Major responsibilities undertaken by organisations in fulfilling their purpose;
- Distinct from formal organisational structures.

(Shepherd & Yeo, 2003, p.51)

- Teaching and learning
- Research
- Developing and rewarding people (human resources)

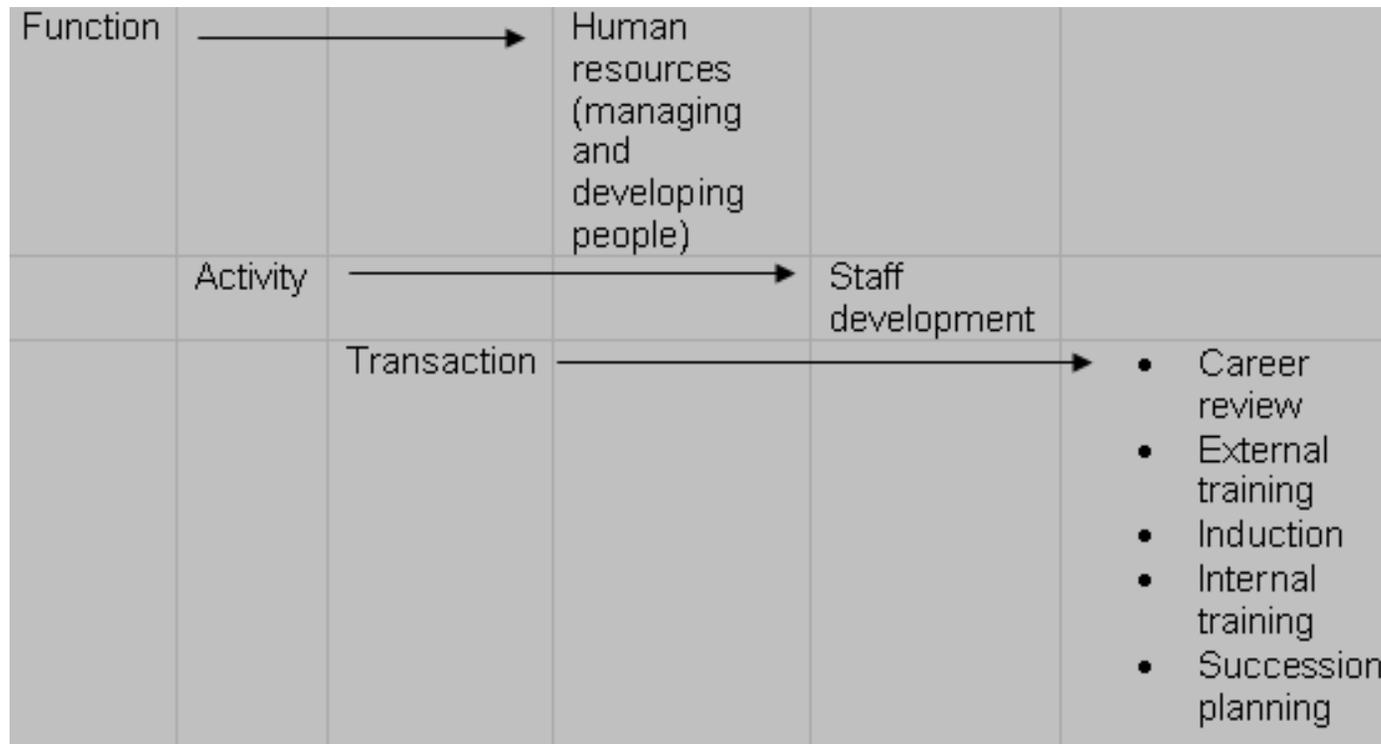
Activity

- Substantive area of work, undertaken to support its parent function:
 - Time-limited
 - An instance of a process
 - Each time a member of staff is employed a recruitment process will have been completed

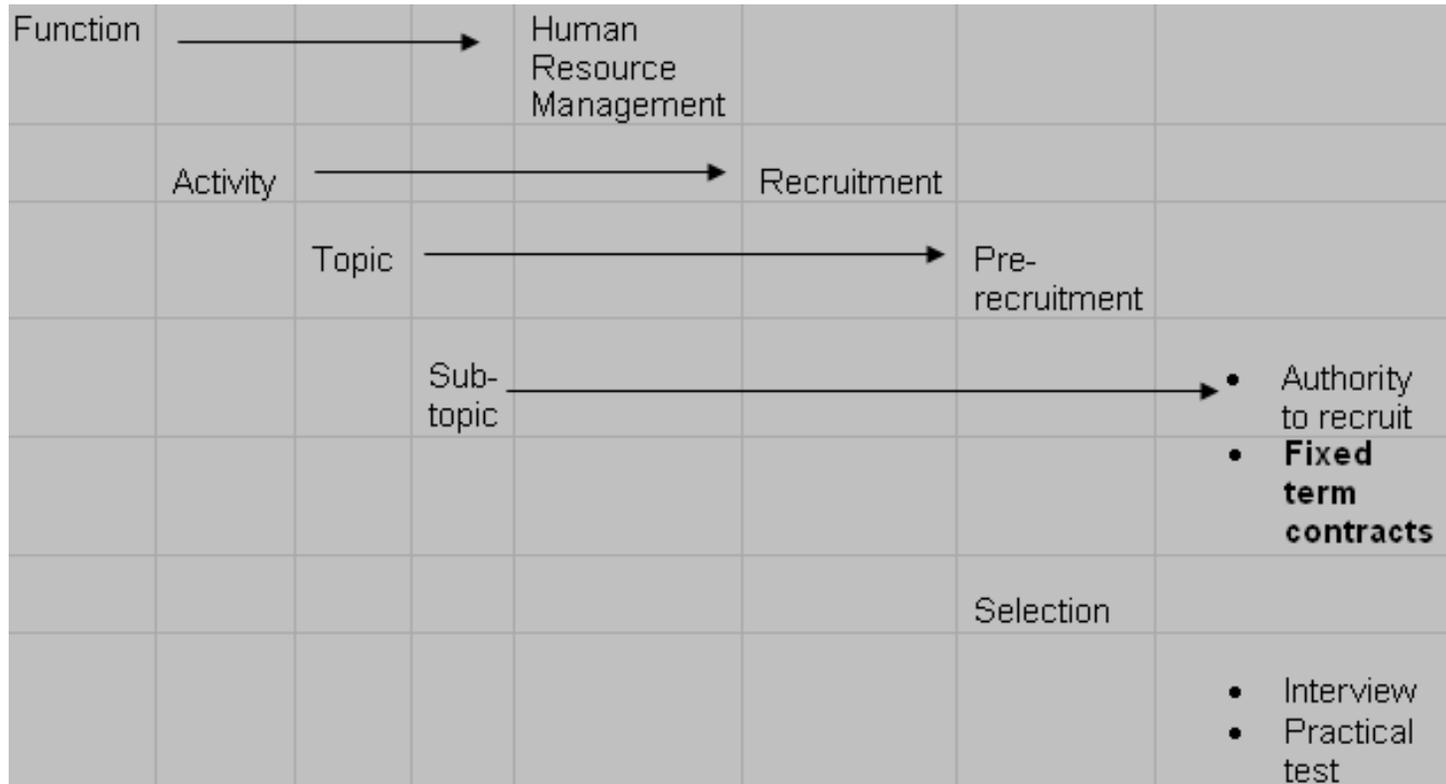
Transaction

- “the smallest unit of business activity... they should be represented as tasks, not subjects or record types”
(National Archives of Australia, 2002)
- On completion transactions normally have a singular outcome

Function, Activity, Transaction



Function, Activity, Topic, Sub-Topic



Hypothesis (Milne, 2007a)

- Functional classification to support portal/intranet development
 - Stable (future proof: business functions and activities)
 - Flexible (incorporate new topics)
 - Holistic view of events

Business Classification Scheme

- Function
 - Activity
 - Transaction

Records Classification Scheme

- Function
 - Activity
 - Topic
 - Sub-topic

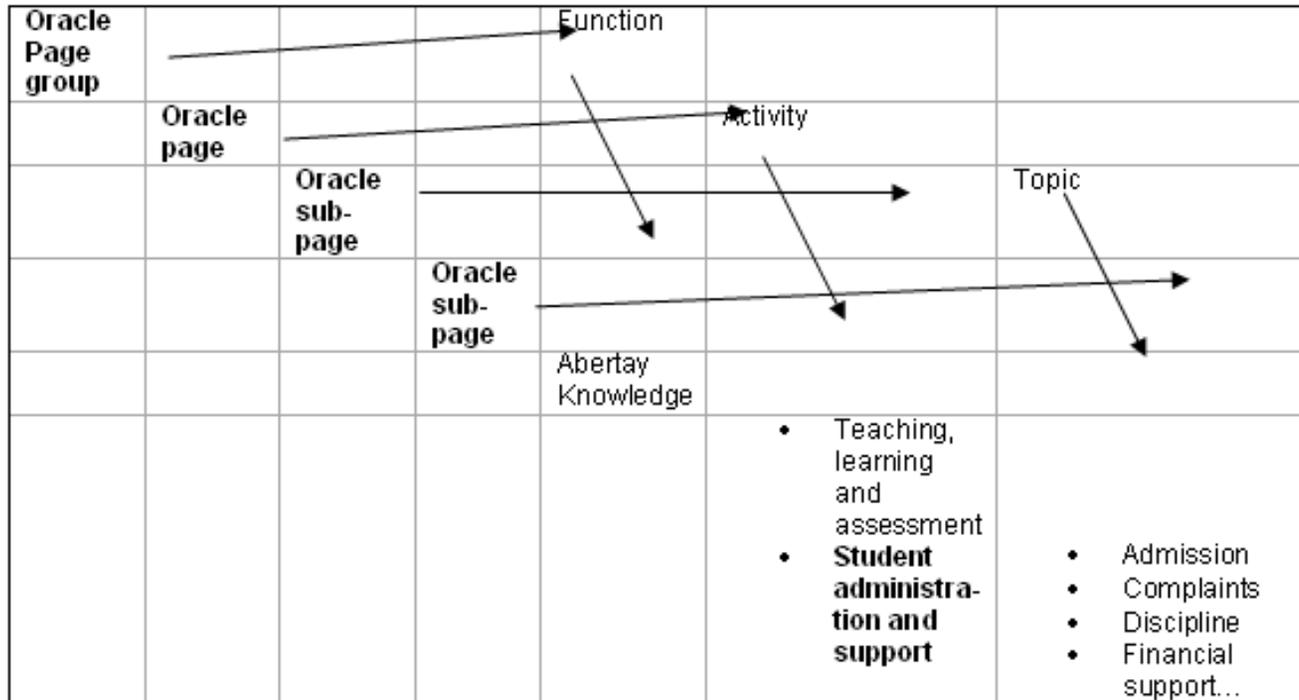
Case study: Abertay Knowledge

- Re-development of the University QA/QE repository
- DIRKS-Methodology (Step B) reviewed
- Function definition: QE/QA
- 10 Activity areas identified
- Taxonomy schedule developed

Taxonomy schedule

<i>Function: Quality Enhancement/Assurance</i>
Activity: Teaching, Learning and Assessment
<ul style="list-style-type: none">❑ Topics (place here: Institutional strategies, policy and procedures for developing and enhancing teaching & learning and employability<ul style="list-style-type: none">○ Sub-topics
<ul style="list-style-type: none">❑ Assessment: Academic regulations and associated procedures<ul style="list-style-type: none">○ Mitigating circumstances○ Examination rules & regulations○ Academic appeals○ Academic deceit○ Code of assessment principles○ Assessment archiving❑ Timetables / Academic calendar❑ Enhancing teaching & learning<ul style="list-style-type: none">○ Teaching fabric

Building the physical taxonomy



Functional classification device	Oracle portal device
Function	Page group
Activity	Category
Topic	Perspective

Abertay Knowledge

Search Abertay Knowledge

University governance

Information on academic management (Senate), executive management (SMG), financial compliance, governance (Court), health and safety, and the legal and quality frameworks of the University.

Planning ,reporting and risk management

Information on the University mission and strategy, together with the planning, reporting and risk management processes in place and the outputs of these processes.

Programme and subject development and review

Information on the annual and periodic approval and review of: modules, programmes, collaborations, external examiners, professional accreditations.

Teaching learning and assessment

Information on the academic regulations, assessment, calendars and timetabling, enhancement and teaching space issues, and key University strategies which influence teaching, learning and assessment developments at Abertay.

Student Administration and Support

Information on admission, bursaries/grant aid, complaints, discipline, financial support, induction, graduation, recruitment, registration/fees, records, special needs, welfare advice, and withdrawal from study.

Research

Information on research ethics, funding, the RAE, the periodic review of research degrees provision, research strategy, research student regulations and procedures, and supervision.

Commercialisation and knowledge transfer

Information on the commercial activities of the University, including the commercial activities register and intellectual property policy.

Human resource management

Information and policies relating to Human resource management at UAD. Currently this section includes a link to the Human Resources portal pages as well as information on strategy and training.

Information governance and security

Strategies, policies and procedures concerning the effective use and safeguarding of the University information, records and data

Estates and campus development

Policies, strategies and procedures relating to the physical infrastructure of the University.

Building the physical taxonomy: activity and topic

Optional Page Properties

Enter the e-mail address of the user to contact about the page. Choose a category and one or more perspectives to classify the page, and enter keywords that describe the content or purpose of the page.

Contact E-mail	<input type="text"/>																								
Category	<input type="text" value="Student administration and support"/>																								
Keywords	<input type="text"/>																								
Perspectives	<table><thead><tr><th>Available Perspectives</th><th></th><th>Displayed Perspectives</th></tr></thead><tbody><tr><td>Academic regulations</td><td></td><td>Admissions</td></tr><tr><td>Annual review</td><td></td><td></td></tr><tr><td>Assessment</td><td></td><td></td></tr><tr><td>Business development</td><td></td><td></td></tr><tr><td>Calendar</td><td></td><td></td></tr><tr><td>Collaboration</td><td></td><td></td></tr><tr><td>Complaints</td><td></td><td></td></tr></tbody></table>	Available Perspectives		Displayed Perspectives	Academic regulations		Admissions	Annual review			Assessment			Business development			Calendar			Collaboration			Complaints		
Available Perspectives		Displayed Perspectives																							
Academic regulations		Admissions																							
Annual review																									
Assessment																									
Business development																									
Calendar																									
Collaboration																									
Complaints																									

Holistic view of topics

[Abertay Knowledge](#) > [Teaching learning and assessment](#) > **Assessment**

Assessment

Information on examination rules/procedures, mitigating circumstances, academic appeals, and academic deceit (plagiarism)

Documents

-   [Academic appeals policy and procedure](#)
-   [Academic deceit policy and procedures](#)
-   [Assessment procedures](#)
-   [Assessment \(including examinations\) arrangements for students with disabilities](#)
-   [Assessment code of principles](#)
-   [Assessment board guides for programme boards](#)
-   [Assessment board guide for subject boards](#)
-   [Examination conduct \(procedures for staff\)](#)
-   [Examination invigilation duties](#)
-   [Examination rules for students](#)
-   [Mitigating circumstances policy and procedures](#)

Did it work?

- Reasonably sound system of organisation
 - Grouping by context
 - Complete view of a task
 - No more than four clicks to content
- Stable, flexible
 - No substantive change at activity level since launch
 - New topics incorporated
- Repeatable
 - Methodology extended
 - Library, managing people, managing & developing University Estate, Finance

From taxonomy to information architecture

- MSc (records management)
 - What is information architecture?
 - Role of information professional: information retrieval
 - “If you wanted to know the meaning of a word you should see how its used” (Gilchrist, 2003, p.14)
- **Review of**
 - **IA job descriptions, person specifications**
 - **Information architecture course syllabi**
 - **Literature**
 - **On-line communities**

Information architecture systems	Allied information retrieval concepts/components
Organizing systems	Overcoming information overload, classification, cataloguing, understanding users information seeking behaviours, hierarchy creation, entity relationships
Labelling systems	Subject headings, index terms, content (subject) analysis
Navigation systems	Hierarchical classification, indexes
Search systems	Post coordination, Boolean logic, metadata, controlled vocabularies, recall/precision in search, indexing
Thesauri, controlled vocabularies and metadata	Faceted classification, semantic relationships, thesauri, thesauri standards, controlled vocabularies, metadata

Functional classification: what role in developing IA?

- Hierarchical classification limited
 - Faceted classification “is the future”
 - Institute of Information Architects (Library)
 - Literature review
 - (Morville and Rosenfield, 2002) (Broughton, 2006)
 - SIGIA-L
 - Faceted classification active discussion area
- Functional classification essentially hierarchical!

Functional classification: what role in developing IA?

- Topic, product, document type, audience, geography, price
 - S.R. Ranganathan view of facets, alternative view offered
 - Business focus

(Morville and Rosenfield, 2007, p.222-226)

- Function, activity, topic, sub-topic as facets?
 - Also rooted in the business world!

Function, activity, topic, sub-topic as facets

- Function, activity, topic
 - Derived from taxonomy structure
 - Thesaurofacet

[Abertay Knowledge](#) > [Planning, reporting and risk management](#) > Risk management

- Controlled vocabulary
 - Index pages, and
 - Content published to pages

[Activity] Programme and subject development and review

[Topic] Programme and subject development and review

[Topic] Combined subject and programme review

[Topic] Annual programme review

[Topic] Professional body accreditation

[Topic] Collaboration

[Topic] External examiners

[Topic] Student feedback and representation

[Topic] Programme specifications

[Topic] Widening access and participation

[Topic] Placement learning

Figure 11 Search metadata derived from the (functional) classification

Properties	
Created	30-JUL-2008 03:30 PM
Last Modified	09-SEP-2008 02:30 PM
Item Link	https://portal.abertay.ac.uk/portal/page/portal/533F540998D2EC5CE0403CC141A06FC6
File Name	Programme-approval-handbook-v-3-0.pdf
Display Name	Programme approval handbook: new programme design, approval and annual review
Author	Secretariat, Deputy University Secretary
Publish Date	09-SEP-2008 12:00 AM
Review Date	30-JUN-2009 12:00 AM
Approval Date	04-SEP-2008 12:00 AM
Approved By	Quality Assurance Committee
Version Number	3
Expiration Period	Never Expires
Category	Programme and subject development and review
Perspectives	Programme design and approval
Description	<None>
Basic Search Keywords	<None>
Document Type	Handbook/manual

[University records management policy](#) 18% 

Create Date: 01-JUL-2008 Page Group: [Abertay Knowledge](#) [Information governance and security](#)
[Records management](#) 



[University guidelines for managing enquiries: Freedom of Information \(Scotland\) Act 2002](#) 

Create Date: 01-JUL-2008 Page Group: [Abertay Knowledge](#) [Information governance and security](#) [Freedom of information](#) 

[Archiving policy student records](#) 

Create Date: 01-JUL-2008 Page Group: [Abertay Knowledge](#) [Information governance and security](#) 

[University records management policy](#) 

Create Date: 01-JUL-2008 Page Group: [Abertay Knowledge](#) [Information governance and security](#) [Records management](#) 

[Freedom of Information \(Scotland\) Act 2002 - handling requests for information: managing employee correspondence during periods of absence](#) 

Create Date: 03-SEP-2008 Page Group: [Abertay Knowledge](#) [Information governance and security](#) [Freedom of information](#) [Legislative compliance](#) 

[Data protection policy](#) 

Create Date: 13-MAR-2008 Page Group: [Abertay Knowledge](#) [Information governance and security](#) [Data protection](#) 

[Freedom of Information \(Scotland\) Act 2002: University procedures for undertaking a review](#) 

Create Date: 13-MAR-2008 Page Group: [Abertay Knowledge](#) [Information governance and security](#) [Freedom of information](#) 

Key findings

- Functional classification worked
 - Case study (Abertay Knowledge)
 - Organising, labelling, navigation, search, thesauri (limited), controlled vocabulary and metadata
 - Evidence to support the initial hypothesis (Milne 2007a)
 - Recognised by JISC (Milne, 2007b)
 - Methodology extended at Abertay
- Function, activity, topic, sub-topic as facets
 - Suggestion that there is a limited role for hierarchical classification in IA

Key findings

- Information retrieval for information architecture
 - Librarianship philosophies and techniques (continue to) dominate
 - Literature
 - (Chowdhury and Chowdhury, 2007)
 - (Batley, 2007)
 - (Morville and Rosenfeld, 2007)
 - IA course design (IR elements)

Key findings

- IR philosophies and techniques allied to RM
 - Blind spot in the IR and IA subject disciplines
 - Re-assessment of multi-disciplinary input
 - Desirable to extend coverage
- Additional areas for research (RM for IA)
 - Electronic records and metadata standards

Key findings

- Professional development for RM: faceted classification
 - Hierarchical classification dominant
 - Evidence to suggest low level of awareness of amongst RM

A final word

3 [\[Sigia-1\] RE: Function Facet? \(Re\)](#) -- rank: **1000**

Amanda, Could you share some pointers to good **records** management overviews or introductory articles that might be useful ... associated vocabulary is a very commonly used strategy for **records** management. There is a great deal in the **records** management literature about functional classification, with vocabulary as ... be better asking this question on some of the **records** lists - Recmgmt-L is one of the main ... that IAs don't seem to think much about **records** management - (I was really struck by it when ... which might be sources of IAs fails to include **records managers**) - and believe me, there are strong similarities between ...

Poster's Name: **Peter Morville**

Poster's Email: **morville_at_semanticstudios.com**

Message Date: **2005-05-01 13:18:35 EDT**

4 [\[Sigia-1\]Function Facet? \(Re\)](#) -- rank: **991**

... associated vocabulary is a very commonly used strategy for **records** management. There is a great deal in the **records** management literature about functional classification, with vocabulary as ... be better asking this question on some of the **records** lists - Recmgmt-L is one of the main ... that IAs don't seem to think much about **records** management - (I was really struck by it when ... which might be sources of IAs fails to include **records managers**) - and believe me, there are strong similarities between ...

Poster's Name: **AF Cossham**

Poster's Email: **cossham00**

Message Date: **2005-04-30 06:06:28 EDT**

Contact details

Chris Milne,
Information Manager
University of Abertay Dundee
Dundee
DD1 1HG
+44 (0)1382 308864
c.milne@abertay.ac.uk

About me

- Christopher Milne BA(Hons) MSc PGDipIA, PGDipPM, MCLIP
 - Qualified librarian and records manager
- Information Manager: University of Abertay Dundee
 - Records/information management
 - Information governance
 - Risk management
 - Project management (PRINCE2)
 - Shared services/collaborative working (smartcard)
 - Information literacy

References

- Batley, S. (2007) *Information architecture for information professionals*. Oxford: Chandos.
- British Standards Institute. (2001) *BS ISO 15489-1:2001 Information and documentation records management. Part 1 General*. London: BSi.
- Broughton, V. (2006) The need for a faceted classification as the basis of all methods of information retrieval. *ASLIB Proceedings*. 58(1): pp.49-72.
- Chowdhury, G. C. and Chowdhury, S. (2007) *Organizing information: from the shelf to the web*. London: Facet.
- Milne, C. (2007a) Taxonomy development: assessing the merits of contextual classification. *Records Management Journal*. 17(1): pp.7-16.

References

- Milne, C. (2007b) Submission for the JISC infoNET award for innovation in records & information management. *Applying information retrieval techniques and philosophies allied to records management to support taxonomy and information architecture development*. [online]. Available from: Joint Information Systems Committee on the World Wide Web: <http://www.jiscinfonet.ac.uk/case-studies/innovation2008/abertay-dundee.pdf> [Accessed 15th May 2009].
- Milne, C. and MacCabe, D. (2004) Institutional Web Management Workshop: taxonomy: the science of classification [online]. Available from: UKOLN on the World Wide Web: <http://www.ukoln.ac.uk/web-focus/events/workshops/webmaster-2004/sessions/milne/> [Accessed 24th May 2009].
- Gilchrist, A. (2003) Thesauri, taxonomies and ontologies: an etymological note. *Journal of Documentation*. 59(1): pp.7-18.

References

Morville, P and Rosenfeld. (2002) *Information architecture for the world wide web*. 2nd ed. Farnham: O'Reilly.

Morville, P and Rosenfeld. (2007) *Information architecture for the world wide web*. 3rd ed. Cambridge: O'Reilly.

National Archives of Australia. (2003) *Overview of classification tools for records management*. Canberra: National Archives of Australia.

National Archives of Australia. (2002) Managing business information: DIRKS [online]. Available from: National Archives of Australia on the World Wide Web: <http://www.naa.gov.au/recordkeeping/dirks/summary.html> [Accessed 20th May 2009].

References

Oracle. (c2004) *Use Oracle9ias portal as your knowledge exchange: Paper # 30751.*

Shepherd, E. and Yeo, G. (2003) *Managing records: a handbook of principles and practice.* London: Facet.