

Libraries and Learning Resources

A Futuristic View of Knowledge and Information Management



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Overview

- Caveats
- Definitions
- Assumptions of where we are TODAY
- Environment; Drivers; Issues
- What is the Future we might create?
- How might we get there?



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Caveats

- The Future isn't here yet (unless you are in Australia or similar time zone!) so I can't be sure!
- Most predications are inaccurate
- We create our own future ...
So maybe there will be something useful in what I say
- I am focussing on university libraries, and libraries within an organisational context

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Knowledge Management

- The main objective of knowledge management is to ensure that the *right* information is delivered to the *right* person just in time, in order to take the most appropriate decision. (Wikipedia) (The same definition was provided for 'Information Management'.)
- Knowledge Management versus Information Management
?% ^&*(**)*&^%
- KM is about PEOPLE; IM is about systems

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Why we have to be involved – Information Overload

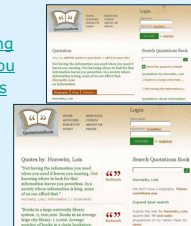
- ["Information networks straddle the world. Nothing remains concealed. But the sheer volume of information dissolves the information. We are unable to take it all in."](#)
- [Grass, Gunther](#)



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Why we have to be involved – Democracy

- ["Not having the information you need when you need it leaves you wanting. Not knowing where to look for that information leaves you powerless. In a society where information is king, none of us can afford that."](#)
- [Horowitz, Lois](#)



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Why the Interest in Knowledge Management

- Information Management has not given sufficient importance to the human dimension
- The Human Interface has been seen as an 'add-on' which does not address the information/knowledge locked in people's heads
- Librarians are good with PEOPLE and INFORMATION, so should play a leading role in KM

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Why the Interest in Knowledge Management

- Information is becoming diverse
 - Publishers create information for consumers
 - Consumers create information for other consumers
- Blurring distinction between
 - Authoritative, objective information
 - Informal, opinion, evaluation



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Information Management

Describes the means by which an organisation effectively plans, collects, organises, uses, controls, disseminates and disposes of its information, and thorough which it ensures that the value of that information is identified and **exploited to the fullest extent**.



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Where are we today?

- Industrial Age vs Information Age
 - Centralisation and control; slow and static
 - Empowerment of the individual and networks and partnerships; fast and dynamic
- 40% of [European] companies do not have an Information Management Strategy (Farrugia, Leo (2006))



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Survey of SCONUL Libraries

- 12 UK Universities had a 'real' IM/KM Strategy
- Most did not use the term 'Knowledge' but rather 'Information'
 - Only two used KM (University of Edinburgh and King's College, London)
- 5 HEIs are developing one
- 1 said 'wish we had one'
- Note the reluctance to use the word 'KNOWLEDGE'

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Drivers

- Virtual Campuses; eLearning
 - Need for ALL services to be integrated
- Efficiency and Effectiveness
 - Information overload
 - Complexity of information environment – search engines to make the 'right' decisions
- Government Strategies
 - National/Consortium licensing of digital resources
 - National eTheses collections
 - Sharing Digital Learning Objects
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Definitional Issues

- IMS – IT only
 - IMS – Library only
 - IMS – all information sources, including Records Management
 - KMS – tacit and implicit knowledge
 - All of the above, Plus
 - Exit interviews to capture knowledge
 - Expert Systems
 - 'Customer Relationship Management' systems
- IMS which is KMS, but deliberately NOT called that!**



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Getting Started Issues

- Audit of all information sources
 - This will scare senior management!
- Principles to guide IM/KM
- Imbedding IM/KM Principles in:
 - Induction
 - Performance Development and Review
 - Job Descriptions
- Selling the benefits of IM/KM to individuals who have to change the way they work

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Future (2000 gazing)

- Convergence of TV and the Internet?
 - Interactivity; choice of programs
 - Money? – Online banking
 - Post Office?
 - Email, Instant Messaging, Chat Rooms
 - Reality no Longer Real – Second Life
 - External Effectiveness not Internal Efficiency
 - New partnerships with customers; new services
 - Mass marketing to one-on-one marketing
 - Mass production to mass customisation
- (Jason Frand "The Information Age Mindset..." Educause Review, Sept/Oct 2000)



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Future (2010-) Enterprise Architecture

- KM/Information Management Strategy
 - EIS, Data, Information Resources, Records, IT
- Enterprise Content Management Systems
 - Manuals; Curriculum materials/Learning Objects; Institutional Repositories; Web
- Customer Relationship Management systems
 - Prospective customers to Alumni via Help Desks, Libraries, Virtual Learning Systems



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Future (2010-) Services

- Intranets/expert systems of corporate knowledge
- Federated Searching across databases and platforms
 - Library catalogue; eSearch (Metalib/SFX); repositories; web
- Collaborative working/studying facilitated by:
 - File sharing; discussion/chat/blogs/wikis (happening NOW!)

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Future (2010-) Infrastructure

- Storage Area Networks
 - Huge storage capability
- Diskless workstations
 - Save all information to central servers?
- Constant Connectivity
 - Broadband
 - Downloads to Mobile Devices
 - Security issues!

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Future (2010-) Culture

- Information Age
 - New relationships
 - New services
- Social Networking – customers adding value to information
 - Loss of control
- Facilitator/Quality Assessor
 - Information skills training and support
 - Collection development/aggregation



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Let's Get This Clear!

- There will still be physical library collections in the foreseeable future
- Not everything is going to be digital
- Don't throw the baby out with the bath water!
- **BUT understand what your customers need**



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Web 2.0

Web 2.0 is about **social networking** and **collaboration**. There are important tools that are included in the new wave of technologies collectively known as "Web 2.0", which are turning the web from a one-way, publisher-to-reader medium to a bi-directional environment where user-contributed content and user-user interaction are key.

Students are already heavily engaged in social networking through social networking websites such as FaceBook, MySpace, Flickr, YouTube etc.

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KM and 'Web 2.0 Publications'

- **Formal content** typically covers that which is provenance established; e.g. in museums, archives, libraries, government departments – artefacts, research, newsletters, articles, books, applications/programmes.
- **Informal content** typically covers content such as text, photographs, individual's cam-captured material, wikis, blogs, chat emails... folksonomies – lives on the web.
 - Concept of Community Repositories
- **Business content** is that used or created for commercial gain, that supports efficiency business... data, products, applications, creative content industries – sound, image etc.

(Penny Carnaby, IFLA 2006 Session 151)

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How Will We Get There?

- Standards and professional know-how
- Rethinking the 'Catalogue'
- Content Management (all types of content)
- Access (and discovery)
- Services (incl. delivery services)
- Practicing what we preach
- Cultural Change
- Overcoming challenges




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Standards and Professional Know-How

- Cataloguing standards to Metadata standards and OAI compliance
- How is it searched? From where is it searched? How will it be delivered?
 - Full text searching
 - Data mining
 - Other searching algorithms?
 - 'Get It' developments
- Semantic Web Technologies and conventions

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Resource Discovery

- Physical Catalogue (card drawers!)
 - Online Public Access Catalogue
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- Containing what is physically in the collection
 - Including eResources remote from the library
 - eResource management modules
 - Federated searching of multi-source databases
 - Including reader suggestions/comments (aka Amazon)

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Vale the Catalogue!

What Next?

- Google type searches of library repositories (aka Primo from Ex Libris)
 - Catalogue
 - Institutional 'library' repositories
 - Other repositories?
- De-coupling of back room and customer facing services
 - Demise of the Library Management System as we know it?



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Content Management

- Integrated Library Management System
- Web Management System
- Content Management System
- Customer Relationship Management System
- Virtual Learning Environment
- Research Publications Database/eTheses
 - OAI compliance
- Researchers' bibliographic database
- Business Administration Systems



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Records Management

- What role for the Library?
- Metadata/classification
- Searching
- Archiving and digitisation
- Integration
- Disposal
- Freedom of Information and Data Protection
- Protecting Intellectual Property



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Reference Services

- Walk in reference services to a physical desk
- Reference Kiosks on each floor/campus
- Support for distance learners
 - Email, fax, telephone and mail
- Virtual reference services
- Customer Relationship Management (CRM)
- Library liaison with other parts of the organisation because of CRM
 - Registry
 - Student Support
 - Marketing
 - etc

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Information Literacy Skills

- Information Overload
- Induction leading to specialised Information Skills Training
- Online, self-paced tutorials; Just in Time Guides
- Imbedding Information Skills Training into the Curriculum
- Personalised learning resources
- Support in context of activity
- Information skills through the Virtual Learning Environment

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Knowledge Management for Libraries

- Intranet
 - Policies, Procedures, Guidelines
 - Plans
 - Project briefs and updates
 - Agendas and Minutes
 - Administrative tools
 - Templates
 - Statistics
 - Procedure manuals
 - Wikis for staff contributions
 - Exit interviews --- Knowledge Bank
 - Link to Institutional Intranet
- Expert systems
 - Virtual Reference Systems



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Trusted Information?

- Encyclopaedia Britannica versus Wikipedia
- Cultural Heritage
 - E.g. New Zealand Government Policy for Community Repositories
- Society creating knowledge and sharing it
- Challenge to the way 'traditional' librarians view Information/Knowledge

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Knowledge Management Examples

- DLKR Blog
 - <http://suecknight.wordpress.com/about/>



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Knowledge Management Examples

- Derek Whitehead's Blog
 - <http://dereksaliablog.blogspot.com/>



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Knowledge Management Examples

- eSystems Blog
 - <http://eservices.wordpress.com/>



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Knowledge Management Examples

- Library Blog
 - <http://www.wiltonlibrary.org/innovate.html>



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Knowledge Management Examples

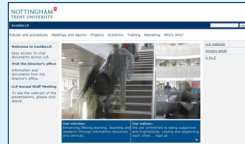
- Wikis
 - http://www.ukoln.ac.uk/repositories/digirep/index/JISC_Digital_Repository_Wiki



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Knowledge Management Examples

- Intranet
 - <https://www.ntu.ac.uk/insideLLR/index.html>



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Who Understands Knowledge Management?

- Different definitions
- Different audiences
- Different experiences
- Complex concepts
- How do we get the message across?



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Legal Issues

- Intellectual Property
 - Open versus protection
- Copyright
 - Fair dealing versus licensing
- Rights Management
 - Pay per use versus library pays – free at point of use
- All Rights Reserved versus Some Rights reserved
 - Creative Commons
- Plagiarism versus Correct citation referencing



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'Cataloguing' Challenges - What Role Librarians?

- Authority Control
 - LC Subject Headings
- Taxonomy
 - LC Subject Headings or similar
- Tagging
 - Social/community definitions
- Free Text, Data Mining, 'Everything' can be found



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Management Challenges

- Library managers must keep up to date
 - Only way to participate in the debates
- Establishing new Partnerships and Undertaking Advocacy
 - Senior managers don't understand and feel threatened by technologies that they can't manage
 - e.g. Web 2.0 tools such as blogs
 - Blog is a reflective journal by another (sexy) name!

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Challenges



- Keeping up to the expectations of our customers
- Managing senior decision makers in a 'new' environment
- Helping our staff to embrace a new role
- Establishing beneficial partnerships
 - Internal to organisation
 - Externally – system and content vendors, other libraries etc

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If we don't ...

- Complacency and uncompetitiveness
- Someone else will do the work, and not as well as librarians can!

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Perhaps the Future has already arrived!

Thank you



Questions?

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