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Beyond Interdisciplinarity, Interactivity, and Interoperability: Some Options for Digital Libraries Education

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Beyond Interdisciplinarity, Interactivity, and Interoperability: Some options for DL Education

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DL Education Workshop,
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Overview

- The Basics
- Digital Dreams – What I dreamed of but it didn’t come true. Yet.
- The Daily Grind – How I do it now!
- Radical notions – digital practice; digital communities – How I’d really like to do it!
- Realistically, what can we do
“One of the chief practical obstacles to the development of social inquiry is the existing division of social phenomena into a number of compartmentalized and supposedly independent non-interacting fields.”

Questions about DL Education


- Would the recommended digital libraries track increase LIS fragmentation?
- Would an integrated approach that included DL not suffice?
More Questions

◊ Would a special track in DL merely continue to split LIS graduates into traditional and IT-intensive roles?

◊ Should the hybrid curriculum be developed and implemented as an independent DL track housed within LIS but jointly taught with CS and other discipline faculty? Or should it be a set of integrated DL courses offered by an interdisciplinary DL department that includes faculty from LIS, CS, and other related disciplines?
Yet More Questions

♦ How many specializations could small LIS schools *pragmatically and intellectually* offer?
♦ What is the appropriate level of education for the DL track?
♦ Questions I didn’t ask explicitly:
  – What are digital libraries?
  – What are ideal-type digital libraries to draw on?
Answers

- Findings from two studies (Spink & Cool, 1999 and Saracevic and Dalbello, 2001)
- Influenced by my own experiences (practice, teaching, and research – Concept of DL is not new)
- “an expansion of the traditional LIS and Computer Science (CS) curricula to encompass a more general digital libraries track.” (Spink & Cool, 1999)
Hybrid curriculum

- bring together complementary strengths from diverse departments such as computer science, psychology, policy studies, and library and information studies.

- Specific curriculum areas such as Theoretical and Historical Foundations; Technical Infrastructure of the Digital Library; Knowledge Organization in Digital Libraries; Collection Development and Maintenance; Information Access and Utilization of Digital Libraries; Social, Economic and Policy Issues; and Professional Issues.
Saracevicic & Dalbello (2001)

1. Why teach digital libraries?
2. What to teach about digital libraries?
3. How to teach about digital libraries?

32% independent; 49% integrative
DL content was integrated within another course and without another independent DL course
Or what do terms or phrases really mean? A term stands in place of a concept. Here is the triangle I used for concept formation... other concept triangles can be found in this article:

IT or ICTs? - Communication

The predominant LIS educational approach uses an information technology context. (Spink & Cool, 1999)
We’ve always been about IT

Colophon
The Future of the Book

- Patrick Bazin (a librarian, Director of the Bibliothèque de Lyon, France) discusses “metareading”
- James J.O. Donnell discusses how Trithemius, a 15th century abbott criticised the new technology of print and couldn’t bring himself to see it as a part of monastic life!

A categorization of DL topics: tools (tools and technologies to build digital libraries); environment (the context in which digital libraries operate); objects (representations, standards, etc.); and combined (tool, technologies, and objects) revealed that 13 LIS programs offered courses that fit into the DL category of tools.
The researchers conclude that the educational needs of DL have been dictated by CS, argue that DL needs differ from LIS or CS proper, and suggest a framework around the integrative topics of DL concepts, content, creation, organization, technology, access, preservation, management, and context.
Back to the book

- **Culture of the book**
  - the way in which a certain amount of knowledge, meaning and sociability was created and disseminated. That’s already passing replaced by meta reading.


- Three crucial attributes of text (which is what the book embodies) are:
  - linearity, demarcation, and fixity.
Visuality vs textuality

• **Bottom line**
  - We need to learn to read differently than we did with printed text. Hypertext links of course are the opposite of fixity (here today gone tomorrow) and boundaries (demarcation) are definitely not clear on the WWW (if I link here, where does my document/text really end?).

• **Constant militating of the ‘visual’ versus text.**
  - More people are visual learners than textual learners...and
  - so every new technology and media is always trying to increase visuality (as opposed to textuality).
Interactivity

“Interactives” – “Interactivities”

Multimedia – Information resource – Interaction

Boundaries – information package?
Content Units – Collections – Services – Tools – Interfaces

– Details:
  http://www.dlib.org/dlib/november02/coleman/11coleman.html
Interoperability

OAI-PMH – Open Archives Initiative-Protocol for Metadata Harvesting

Federated searching – Open Access

Digital Repositories – Digital Libraries

Details: http://www.dlib.org/dlib/july04/coleman/07coleman.html
Unity Amid Diversity

A lot of stuff out there!
- HTML, DTD, SGML – HotMetal Pro
- Scripting – Perl or PHP
- Databases – MySQL
- XHTML, CSS, Javascript, RSS, XML, WML, SOAP, RDF, DC, CDWA, EAD, OAI, OAIS, BOAI, CrossRef, DOI, SFX
Professional Organizations

- ALA, IFLA, ASIST, ALISE
- ACM, IEEE
  - Computing Curricula Report & IFLA 10 Core Elements for LIS
Steele and Guha sampled 30 library job advertisements in the UK, USA, and Australia between July 1997 and January 1998. They found that the overwhelming number of requirements were for traditional skills and only four advertisements listed requirements for IT skills.
Opinion Pieces

• Roy Tennant
  - “Universe of possibilities”
  - Digital Librarian should know ASP from PHP
  - Understand and evaluate a variety of IT for selection & use
  - Ideal-type of DL Education at University of Michigan: Introduction to XML, Usability Methods in Web Design and Digital Librarianship.
Educational Research

- Interdisciplinary curriculum
- Constant learning – lifelong learning
- Interdisciplinary teams for teaching & learning
  - 8-step process
Eight step process

1. Assemble an interdisciplinary team.
2. Select a topic.
3. Identify disciplines from which the course needs to draw.
4. Develop the subtext for the course (subtext is the abstract issue or issues which form the substantive topic of the course).
5. Structure the course by identifying the *conceptual glue* that holds it together, keeping in mind not only what is taught but to whom.
6. Select the readings.
7. Design the assignments.
8. Prepare the syllabus
Knowledge Organization

- Organization of Information
- Cataloging & Metadata Management
- Indexing & Abstracting
- Theory of Classification
- Controlled Vocabularies
  - On the books
  - Knowledge Structures
  - Digital Libraries
Open access archive for LIS

Digital Library for Information Science and Technology

- Browse
  - Browse the archive by Subject or Year
- Latest Additions
  - View items added to the archive in the past week.
- Simple Search
  - Search the archive using the most common fields.
- Advanced Search
  - Search the archive using a more complex range of fields.
- DL-Harvest
  - Search DLIST and related area archives at the same time.
- Registered Users Area
  - Registered users may submit items to the archive.
- Register
  - Register for an account (or reset a forgotten password).

This DLIST Archive is a project written by the School of Information, Libraries and the Environment and the Information Technology Center, University of Arizona. It is funded by the Institute of Information Systems and Technology (IIST) and the Information Technology Commission of Arizona. The DLIST Archive is supported by the National Science Foundation (NSF) through award IIS-0735791. DLIST has an Advisory Board and also serves as a backend for the Information Technology and Society Research Lab.
Open access aggregator for LIS
Thursday, May 26, 2005

Yesterday, we announced the establishment of the first DLST Advisory Board and our open aggregator service DL-Market. You can read the complete details at [DLST Recent News](http://www.dlst.org.au/).

comment [10:14 PM]

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Sunday, May 22, 2005

A few days ago, I read an e-mail but who's the rules? in the LA Times. I thought it was a great article highlighting as it did some of the trends and etiquette of email communication. I wanted to post it here, but today I couldn't find it using the LA Times search. I was able to find it using Google however! The article discusses the rise of texting and its impact on workplace manners and etiquette. It highlights the importance of clear and effective communication in the workplace, and stresses the need to avoid using abbreviations and acronyms that may not be understood by everyone.

comment [10:42 PM]

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Monday, May 16, 2005

In April [Blog](http://asconline.org.au/), we welcomed the [Leamaine Technologies Center](http://www.leamaine.com/) as our hosting partner. Thanks to the Arizona Health Sciences Library, especially Paul Breakey, for forwarding the message about the importance of recognizing the value of digital objects. The model for value creation in digital objects is to be used as a guide to the value of digital objects. The bibliography I found (although dated) is from the National Library of Australia - [Describing Digital Objects](http://www.nla.gov.au/).

comment [5:34 AM]

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Friday, April 08, 2005

Yesterday, in class, we explored Concept Space, [http://concepts.wexford.edu.uk/](http://concepts.wexford.edu.uk/), the visual search tool for business concepts. It is the only working interface that I know of where the concepts are generated from a bibliographic classification scheme - a classification scheme used by two libraries in UK business schools (University of Bath and the London School of Economics). Education libraries and business schools are also interested in a variety of information resources. Unless we use our annual [Education Libraries](http://www.asconline.org.au/) or [Business Libraries](http://www.asconline.org.au/) meetings to discuss the use of digital objects, we may find ourselves getting useless information which has little relevance to our users.

comment [10:08 AM]

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Proof of Concept: Web Clearinghouse on Cataloging and Metadata Education

Links will not work; Read also Workshop and Background Notes

Search the Clearinghouse

To Contribute Resources Enter URL

Browse by broad area of study
- Archival organization
- Cataloging
- Classification
- Controlled vocabularies
- Metadata
- Museum organization
- Records management
- Semantic Web

Browse Educational Resources - this is FormType of Resource - tentative draft of proposed list is in Notes

Browse Materials by Audience - this is the recommended educational level of the resource and the first pass will try to use the three levels from Ingold's report - see Notes

Browse Standards and Tools - which will categorize and list the standards and major tools.
Clearinghouse - prototype 2

Welcome to the Metadata and Cataloging Education Web Clearinghouse!

There are currently more than 200 resources that can be used for teaching and learning in the broad areas of cataloging (descriptive, subject, and authority using MARC21/ACECS/MARC) and metadata (DC, specialized standards such as EAD, GILS, TEL, FICU CSDGM, etc.). Emerging areas such as ontologies, semantic web and related areas such as information architecture, classification, controlled vocabularies, information seeking behavior, library systems, are also briefly covered.

For a brief description of the clearinghouse visit Notes on Web Clearinghouse.

For a look back at the past (how did this clearinghouse come to be?) visit the Clearinghouse Development Page and to see into the future (where is it going) read the LC Proposal for the Clearinghouse.


Browse by Information Organization and Retrieval Tool: Archival Finding Aid | Museum Inventory and Register | OPAC (Library Catalog)

Browse to see Examples of Systems (schemes) of Organization: Authority File | Bibliographic Classification | Cataloging | Subject Headings

Browses to find a Community of interest/practice (professional associations) Digital Libraries | Libraries | ILS Vendors | Metadata Projects | or see Sample Metadata Records

Browse LIS schools | Student Work in this area

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The Daily Grind

- Coursework
- Research projects (small n)
  - Information behavior studies
  - Citation studies
  - Organizing collections
  - Information retrieval

- Internships
  - Intellectual Property
  - Collection development
  - Metadata
Dream team Option

• Characteristics of the dream team
  – Research & development & teaching experience
  – Computer Science, Geography & Regional Development, Library & Information Science, Fine Arts, etc.
  – Global (multi-lingual) experiences
  – Cultural and Gender Diversity
Radical Notions – not really!

- Digital Learning Communities
  - Communication and Writing
    - Email, Electronic Discussion lists, Web page publishing
  - Virtual (or semi-virtual) communities
    - MkDoc, Slashdot, UseMod Wiki (Plones), Blogs

- Digital Practice
  - Buzzword for automation! But it may be SEXY!
What do librarians want?

- Librarians want to teach
  - But they generally don’t want to teach alone; they want to teach with a full-time faculty preferably
- Librarians want to do research
  - Again, they generally would like to collaborate
What can we do?

◊ Funders:
  – Encourage (FUND) synergistic projects & workshops – projects that try to blend research, teaching & service in support of LIS education

◊ LIS schools & faculty:
  – Spread the ‘digital libraries’ culture (load) across the curriculum; cultivate the “digital mind”
The End

- Thank you!
- Email: asc at arizona dot edu
- This presentation will be archived in DLIST – http://dlist.sir.arizona.edu/
- AHSL (Paul Bracke) – DLIST support (former)
- LTC (Garry Forger) – DLIST support (current)