UNC
SCHOOL OF INFORMATION
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Designing, Developing, and Evaluating an Interdisciplinary Digital Library Curriculum

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Tapping the vast reservoir of human knowledge --Louis Round Wilson, founder, 1931

Acknowledgements

Project team:

UNC: Barbara Wildemuth, Sanghee Oh

VT: Ed Fox, Seungwon Yang

Project advisory board

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Introduction to the Project

Develop curriculum materials for teaching digital library topics

- For use in both LIS and CS programs
- Lesson plans, exercises, assignments, etc.
- For the classroom, not online

Where is the line between DL curriculum and LIS curriculum?

Project URLs

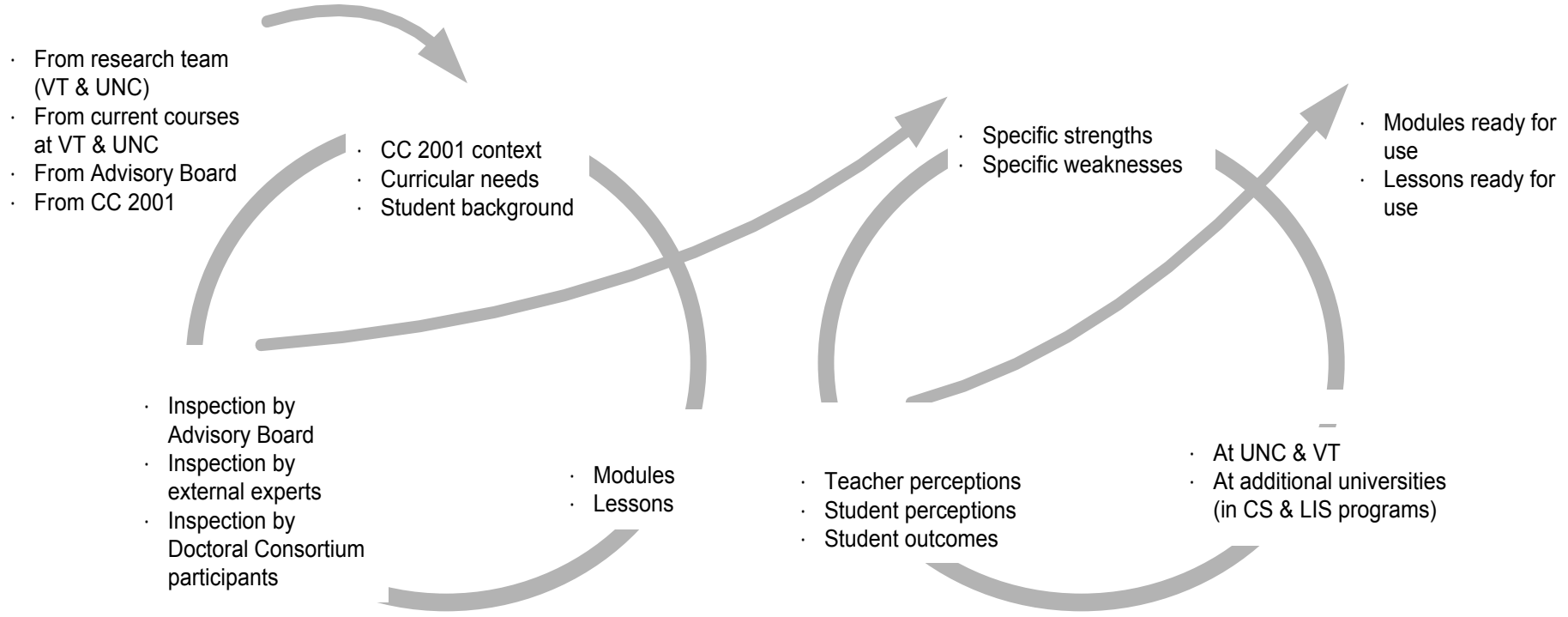
Project site: curric.dlib.vt.edu

- Includes links to all publications

Project wiki: curric.dlib.vt.edu/wiki/

- Includes all modules ready to be used & being evaluated

Development and Evaluation Process



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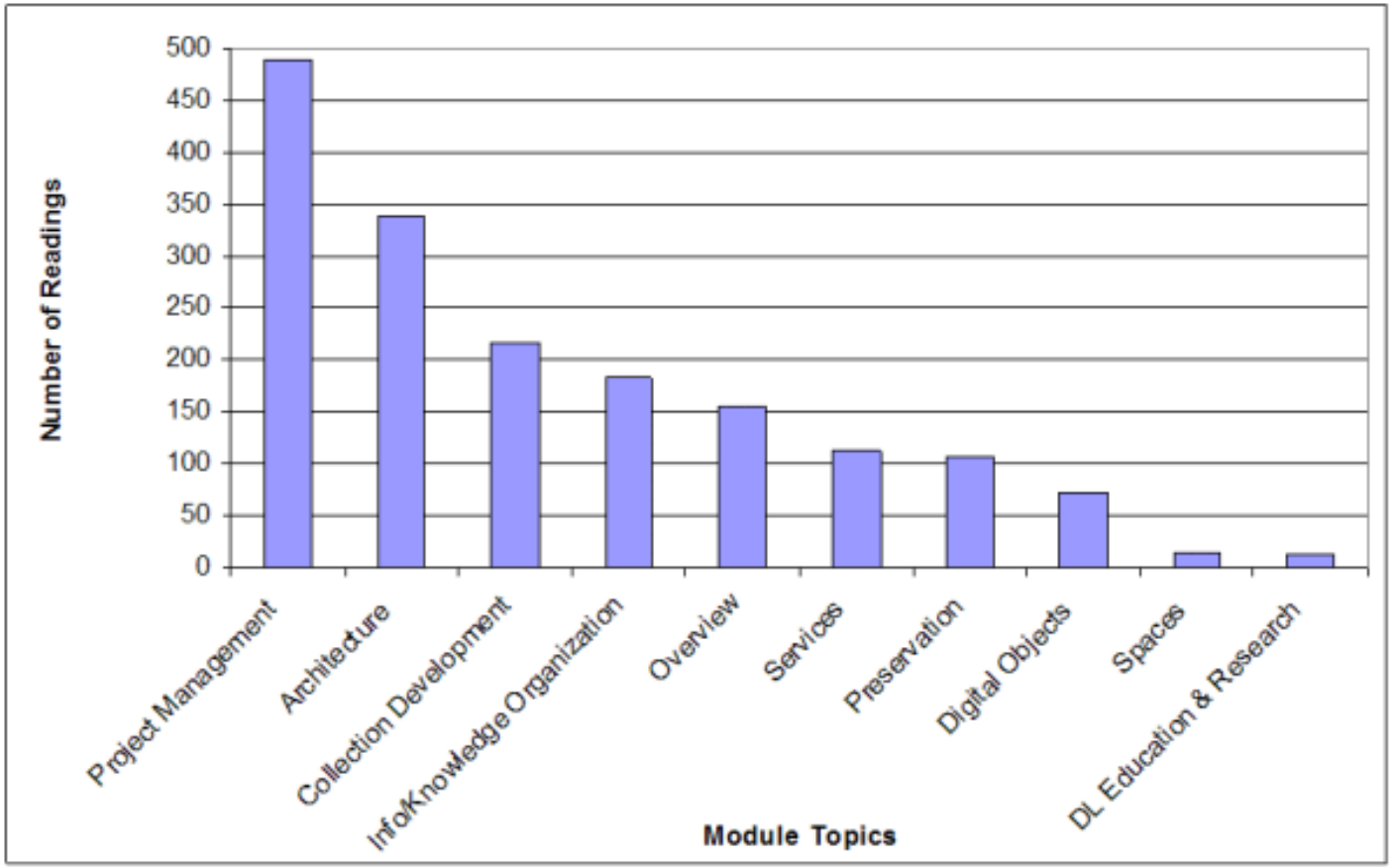
NSF

Computing Curriculum 2001

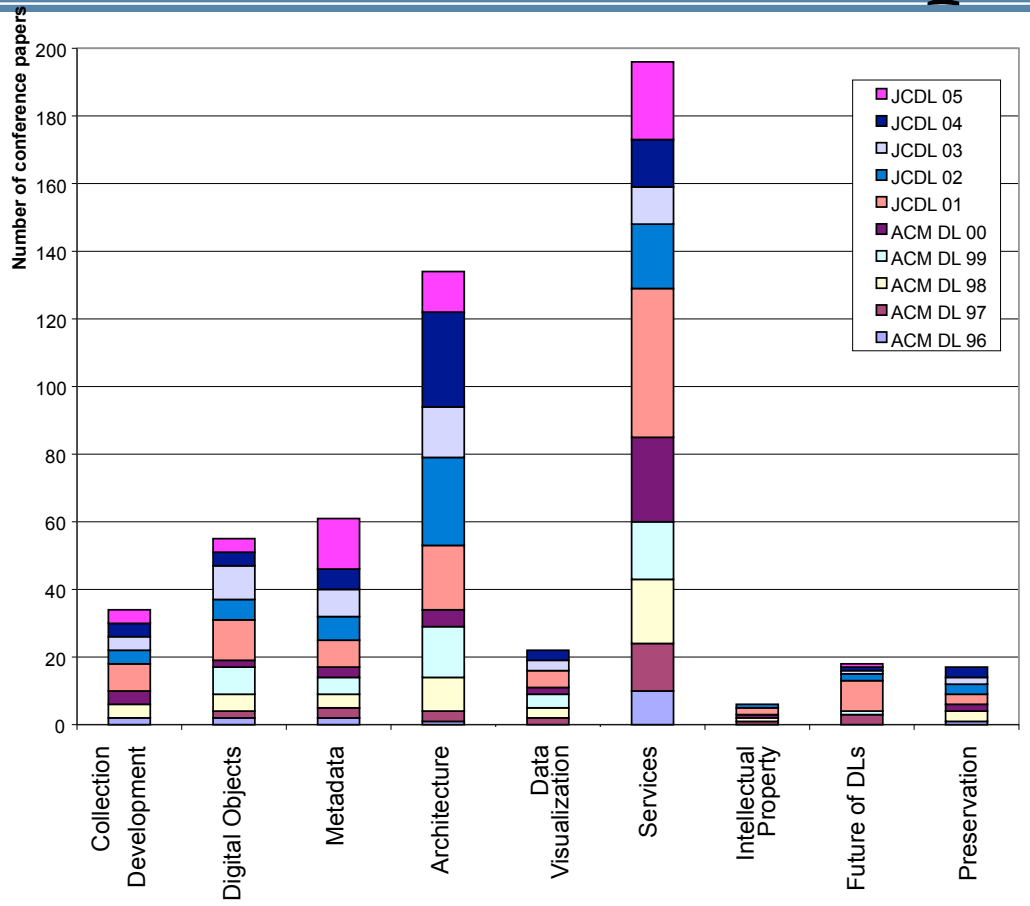
11. IM. Information Management (10 core hours)
    - IM1. Information models and systems (3)
    - IM2. Database systems (3)
    - IM3. Data modeling (4)
    - IM4. Relational databases
    - IM5. Database query languages
    - IM6. Relational database design
    - IM7. Transaction processing
    - IM8. Distributed databases
    - IM9. Physical database design
    - IM10. Data mining
    - IM11. Information storage and retrieval
    - IM12. Hypertext and hypermedia
    - IM13. Multimedia information and systems
    - IM14. Digital libraries

Topics of Readings in DL Courses



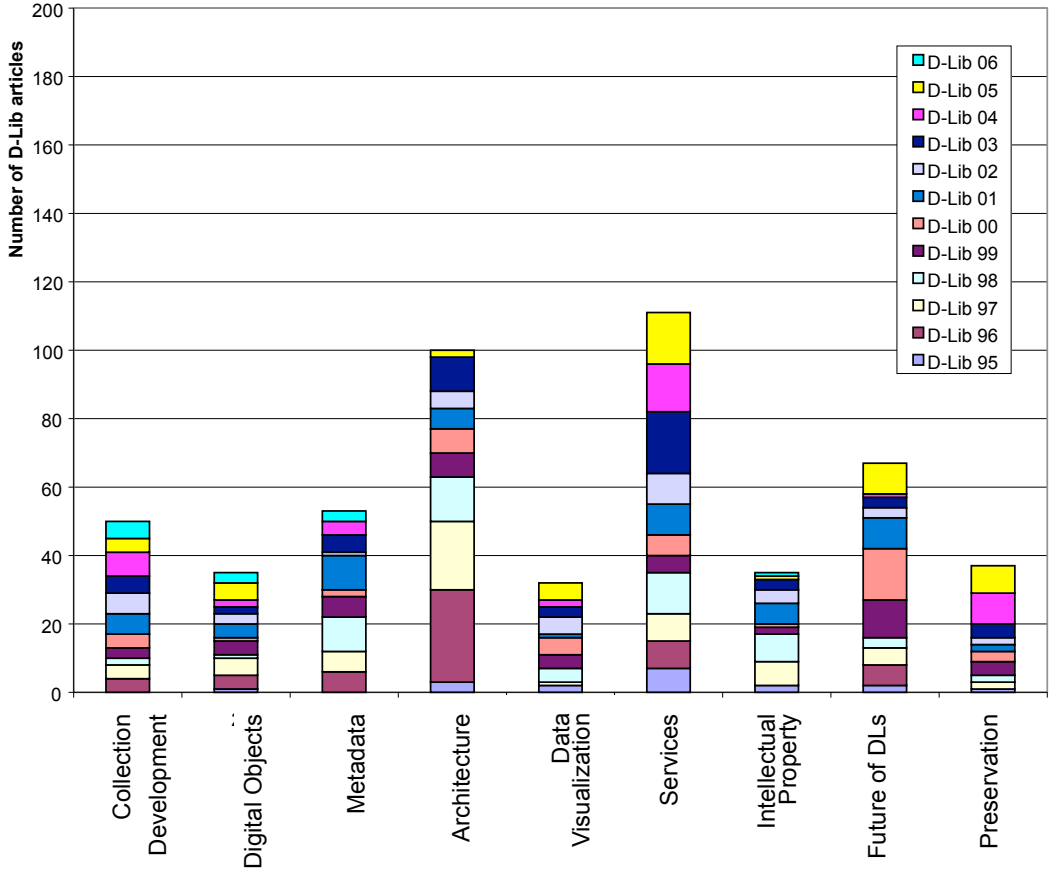
Pomerantz, J., Oh, S., Yang, S., Fox, E. A., & Wildemuth, B. M. (2006). The Core: Digital Library Education in Library and Information Science Programs. *D-Lib Magazine*, 12(11). http://dx.doi.org/10.1045/november2006-pomerantz

Topics of Conference Papers



Pomerantz, J., Wildemuth, B., Fox, E. A., & Yang, S. (2006). Curriculum Development for Digital Libraries. In Proceedings of the 6th ACM/IEEE-CS Joint Conference on Digital Libraries (pp. 175-184). New York: Association for Computing Machinery. http://doi.acm.org/10.1145/1141753.1141787

Topics of Papers in D-Lib Magazine



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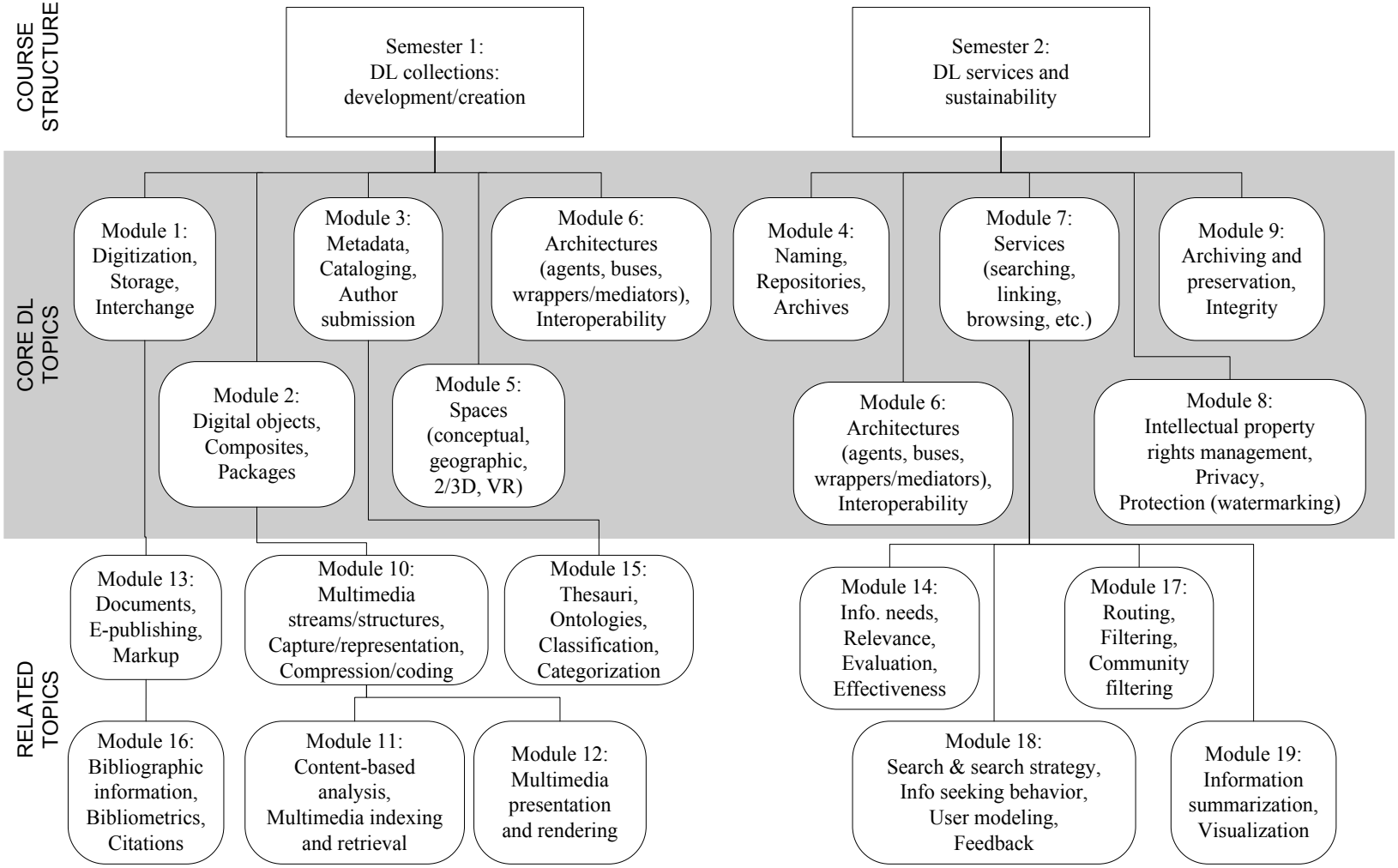
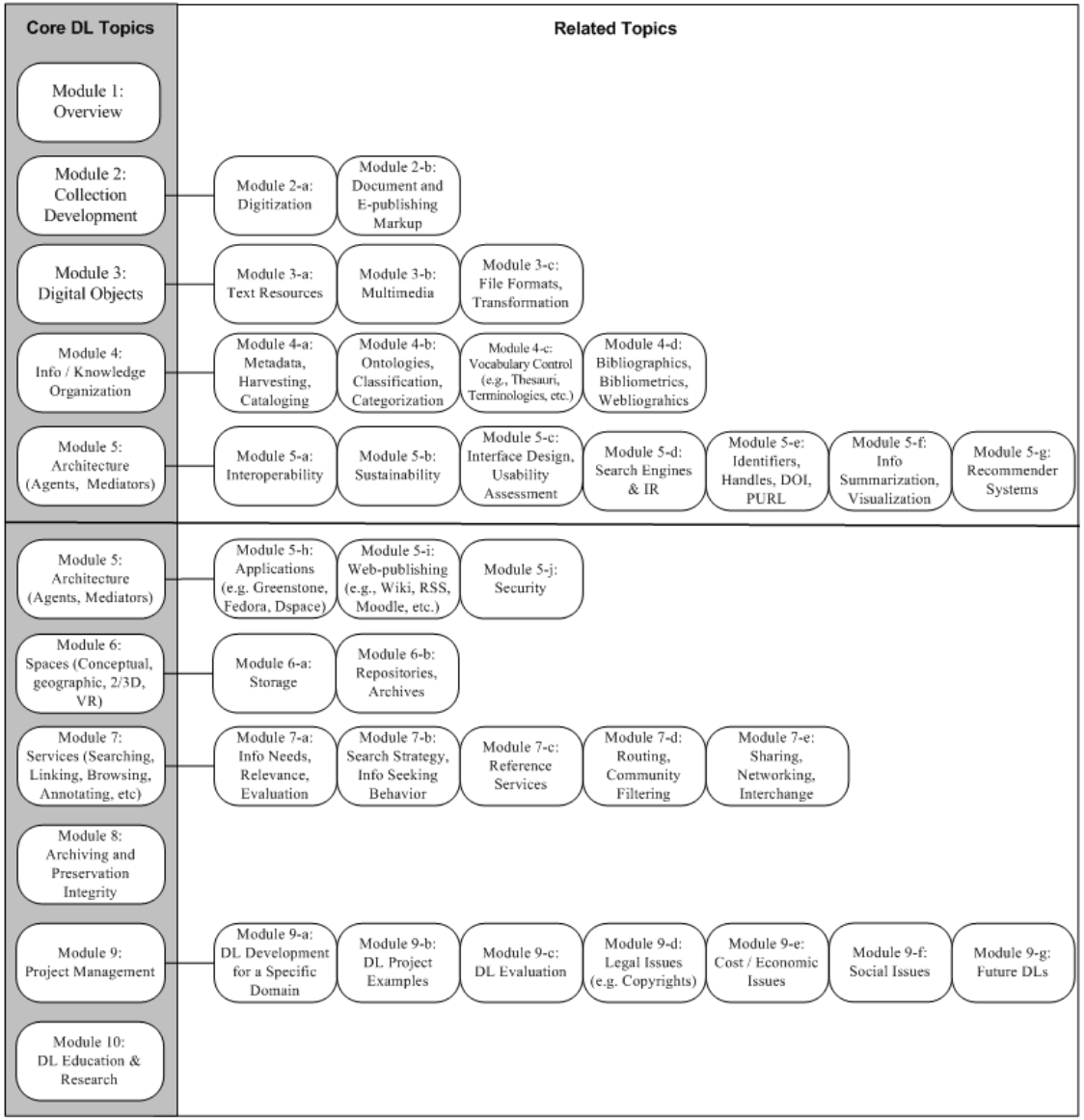
2006 Curriculum Framework



2007 Curriculum Framework



2008 Curriculum Framework

1	Overview	1-a (10-c): Conceptual frameworks, models, theories, definitions	1-b: History of digital libraries and library automation
2	Digital Objects	2-a: Text resources 2-b: Multimedia	2-c (8-c): File formats, transformation, migration
3	Collection Development	3-a: Collection development/ selection policies 3-b: Digitization	3-c: Harvesting 3-d: Document and e-publishing/ presentation markup
4	Info/ Knowledge Organization	4-a: Information architecture (e.g., hypertext, hypermedia) 4-b: Metadata 4-c: Ontologies, classification, categorization	4-d: Subject description, vocabulary control, thesauri, terminologies 4-e: Object description and organization for a specific domain
5	Architecture (agents, mediators)	5-a: Architecture overviews 5-b: Application software 5-c: Identifiers, handles, DOI, PURL	5-d: Protocols 5-e: Interoperability 5-f: Security
6	User Behavior/ Interactions	6-a: Info needs, relevance 6-b: Online information seeking behavior and search strategy	6-c: Sharing, networking, interchange (e.g., social) 6-d: Interaction design, info summarization and visualization, usability assessment
7	Services	7-a: Search engines, IR, indexing methods 7-b: Reference services 7-c: Recommender systems	7-d: Routing, community filtering 7-e: Web publishing (e.g., wiki, rss, Moodle, etc.)
8	Preservation	8-a: Approaches to archiving and repository development	8-b: Sustainability 8-c (2-c): File formats, transformation, migration
9	Management and Evaluation	9-a: Project management 9-b: DL case studies 9-c: DL evaluation, user studies 9-d: Bibliometrics, Webometrics	9-e: Intellectual property 9-f: Cost/economic issues 9-g: Social issues
10	DL education and research	10-a: Future of DLs 10-b: Education for digital librarians	10-c (1-a): Conceptual framework, theories, definitions 10-d: DL research initiatives

Module Template

1. Module name
2. Scope
3. Learning objectives
4. Level of effort required
5. Relationships with other modules
6. Prerequisite knowledge required
7. Introductory remedial instruction
8. Body of knowledge
9. Resources
10. Exercises / Learning activities
11. Evaluation of learning outcomes
12. Glossary
13. Contributors

Completed modules

Module Development Process

1. First draft written by a single author.
2. Module is reviewed by the research team; feedback is provided to the author.
3. Author makes revisions to the module.
4. Module is posted on the project wiki for expert evaluation. (Evaluators have been previously recruited.)
5. Evaluators post comments to the wiki.
6. Author makes revisions to the module.
7. Modules are available to be implemented in the classroom.

Module Evaluation Process

7. Modules are available to be implemented in the classroom.
8. Instructor decides to use a module, modifies it to suit their teaching.
9. After the module is used in class:
    a. Students are emailed to fill out an online survey.
    b. Instructors are interviewed.
    c. Graded student work is collected, if any.

Evaluation: Student Survey

1. Clearly outlined objectives and outcomes were provided.
2. The module was well-organized.
3. The amount of work required for this module was appropriate.
4. The assigned readings helped me better understand the subject matter.
5. Given the module's objectives, the learning activities and/or assignments were appropriate.
6. The learning activities and/or assignments required thinking and understanding.
7. The learning activities and/or assignments were stimulating.
8. Assignments for this module helped me understand what will be expected of me as a professional.
9. I learned useful professional skills from this module.
10. I know significantly more about this subject than before I took this module.
11. Class lectures added to my understanding of the subject.
12. I gained a good understanding of the basic concepts related to this subject.
13. I learned to interrelate important issues related to this subject.
14. This module stimulated me to think critically about the subject matter.
15. I feel that this learning module served my needs well.
16. I was very satisfied with this learning module.
17. Overall, considering its content, design, and structure, this module was effective.

Evaluation: Instructor Interview

1. Objectives
2. Body of knowledge
3. Readings
4. Learning Activities
5. Logistics
6. Overall structure of the module

Evaluation: Assigned Work

1. Analyzed with respect to the objectives of the module.
2. Triangulated with the student survey data as a check on both.

Administrative Issues

Biannual meetings of the advisory board & others, at ASIST & JCDL conferences

Recruiting module authors, expert evaluators, and instructors

Future Work

- Continue to develop modules
- Develop community of interest
  - How to keep a community of interest interested?
- Where to host modules in the long term?
  - Wikibooks, Wikiversity, learning object repositories?

Future Work

NSF Workshop in November

EU-US ATLANTIS Programme

- Transatlantic Degree Consortia Project

IMLS and/or Mellon Foundation

- Problem-based learning curriculum, internships

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This presentation: www.ils.unc.edu/~jpom/conf/Pomerantz_LIDA2008.ppt

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Thank You!

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