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SI 640 Digital Libraries and Archives

Week 4 – Research Agendas

Themes of this week

Themes

- Context of research agendas
- Waters/Garrett and Levy
- Digital preservation (Hedstrom)
- Usability and interoperability
- Research and practice

“The challenge ahead is to bring our best technical skills to bear on the problem of digital preservation without losing sight of the ultimate human purposes these efforts serve..”

David Levy, Heroic Measures, p. 160.

Preserving Digital Information

- Integrity at the heart of preservation.
 - Content (structure and format)
 - Fixity (version control)
 - Reference (location and citation)
 - Provenance (origin / chain of custody)
 - Context (dependencies / linkages / mode of distribution)

Preserving Digital Information

- Recommendations (p. 40)
- The first line of defense ... rests with the creators, providers and owners of digital information.
- Long-term preservation of digital information ... will require a deep infrastructure capable of supporting a distributed system of digital archives.
- A critical component ... is the existence of a sufficient number of trusted organizations capable of storing, migrating and providing access to digital collections.
- A process of certification for digital archives is needed to create an overall climate of trust about the prospects of preserving digital information.
- Certified digital archives must have the right and duty to exercise an aggressive rescue function ... for ... digital information that is in jeopardy of destruction, neglect or abandonment by its current custodian.

Metadata for Digital Libraries

Research Agenda (EU-NSF)

- Architecture

- Models, creation, repository support

- Simplicity, complexity, interoperability

- Core sets, richness, complex objects

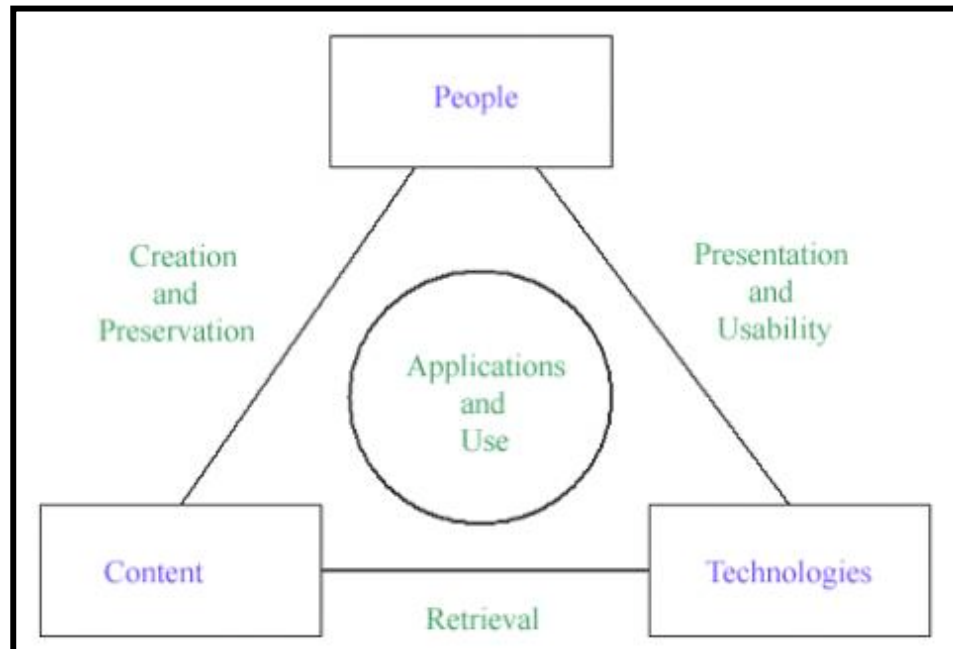
- Infrastructure

- Standards, crosswalks, registries

- Policy

- Internationalization, trust, metrics

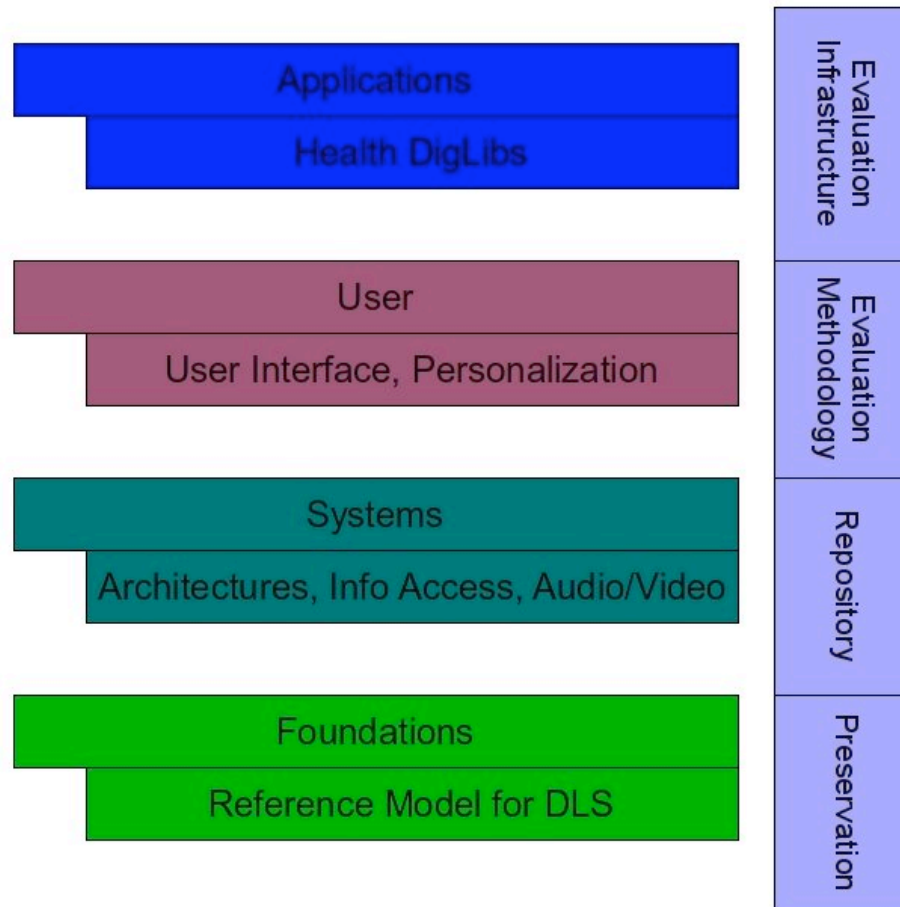
Research Model, NSF/DELOS



NSF/DELOS. (2003) Working Group on Digital Imagery for Significant Cultural and Historical Materials.

http://www.dli2.nsf.gov/internationalprojects/working_group_reports/digital_imagery.html

Research Model, DELOS



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Next Decade of NSF Research

- Expand what can be searched
- Use context for information retrieval
- Integrate information spaces into everyday life
- Reduce data to actionable information
- Improve productivity through information access

NSF Knowledge Lost in Information (2003)

<http://www.sis.pitt.edu/%7Edlwkshop/>

Thank you!

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