The Portal Puzzle:
Integrating Discovery and
Discovering Integration

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ALCTS
Catalog Form and Function Interest Group
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ARL Scholars Portal Project

- Participants
  - Arizona State University
  - Dartmouth College
  - Iowa State University
  - University of Arizona
  - University of California–San Diego
  - University of Southern California
  - University of Utah
ARL Scholars Portal Project

- Objectives
  - Create a suite of scholarly productivity tools and services . . .
  - . . . to “integrate, manipulate, exploit, and explore” the academic content universe.
    [D. Greenstein]

Academic Productivity

- Discovery: Scholars Portal
- Capture: request and delivery tools
- Integration: description, classification, and indexing tools
- Manipulation: text-processing and citation-management tools
- Distribution: contribution and publication tools
- Consultation: virtual reference services and access to electronic scholarly communities
Scholars Portal

- Discovery “Desirables:”
  - Ability to query two distinct streams of electronic resources and databases:
    - “Universal stream” of unrestricted resources (Web pages and searchable databases) from Web sites targeted for quality and academic relevance.
    - “Local stream” of information, access to which is restricted to local users by license or other agreement.
  - Ability to map a search against different types of metadata.

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Integration . . .

Access to disparate electronic resources and services can be improved through integration, both within a single institution and between multiple institutions.

... Not Aggregation

- Aggregate: to collect or gather into a mass or whole.

- Integrate: to form, coordinate, or blend into a functioning or unified whole.

Integration In Two Dimensions

- Of search results
- Of resources on the desktop

“One-Stop Shopping”

Portals = “systems which gather a variety of useful information resources into a single, ‘one stop’ web page, helping the user to avoid being overwhelmed by ‘infoglut’ or feeling lost on the web.”

— Michael Looney and Peter Lyman.
“Portals in Higher Education.”
*Educational Review*, 35:4 (July/August 2000)
“Useful Information Resources”:

**Academic**

- Local catalog
- Other research library catalogs
- Locally licensed full-text and abstracting/indexing databases
- Public domain or publicly accessible abstracting/indexing services
- Finding aids for special collections and archives
- Locally digitized resources
- Vetted Web sites

“Useful Information Resources”:

**Administrative**

- Academic advisors
- Course assignments
- Course schedules
- Electronic reserves
Why are we having to do it?

Commercial search engines are deficient because of:

- what they search
- how they search, and
- the fact that they only search.

(For that matter, so are library catalogs — but I’ll leave that for another discussion.)

Why is that?

- Quality of information
- Brute force application of keyword searching algorithms
  - Too many keywords
  - Too many ways of loading up documents with spurious keywords
- Too much emphasis on simple counting when carrying out relevance routines
Increasing Precision & Narrowing Recall

- Confine
  - Subject-specific
  - Deep Web only

- Refine
  - Markup (XML)
  - Metadata

Beyond Keywords

- Topic mapping
- Concept mapping
- Automatic feedback looping
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Integration on the Desktop

- Automated and contextualized document naming
- Version control
- Web-enabled notebooks
- Document relationship analyzers
- Hierarchy generation