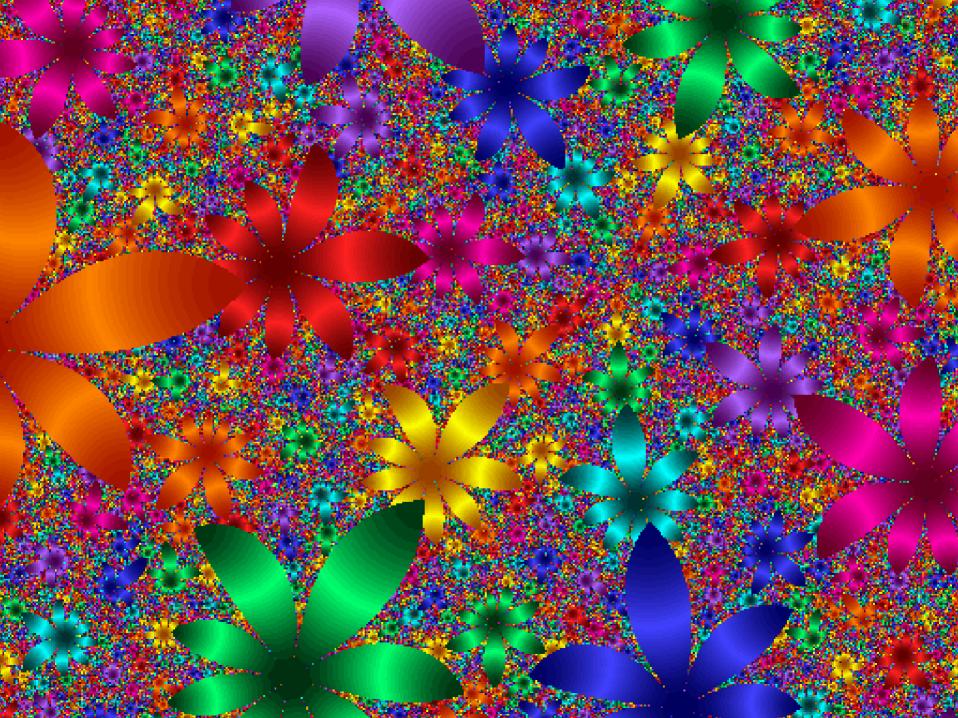
The Usability of Electronic Finding Aids during Directed Searches

DLF Forum April 21, 2004 New Orleans, Louisiana

Christopher J. Prom
Assistant University Archivist
University of Illinois at Urbana-Champaign

prom@uiuc.edu



introduction

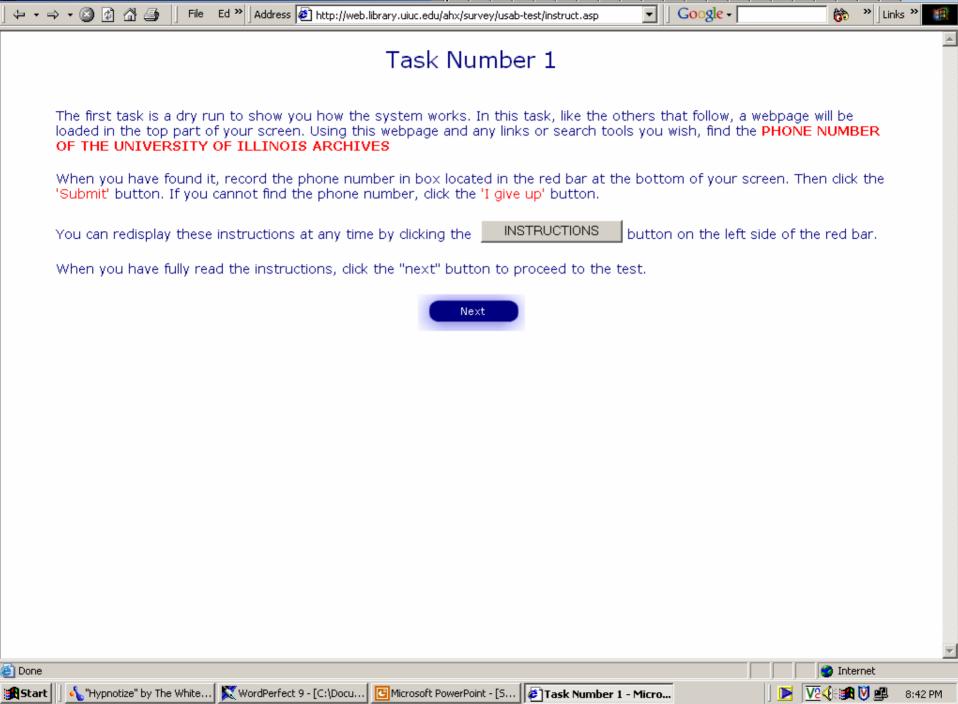
- archival chaos and "messiness"
- development of descriptive standards (incl. EAD)
- two issues largely unaddressed
 - user perception and use of finding aids
 - which designs facilitate effective search strategies?

goals, background, and scope

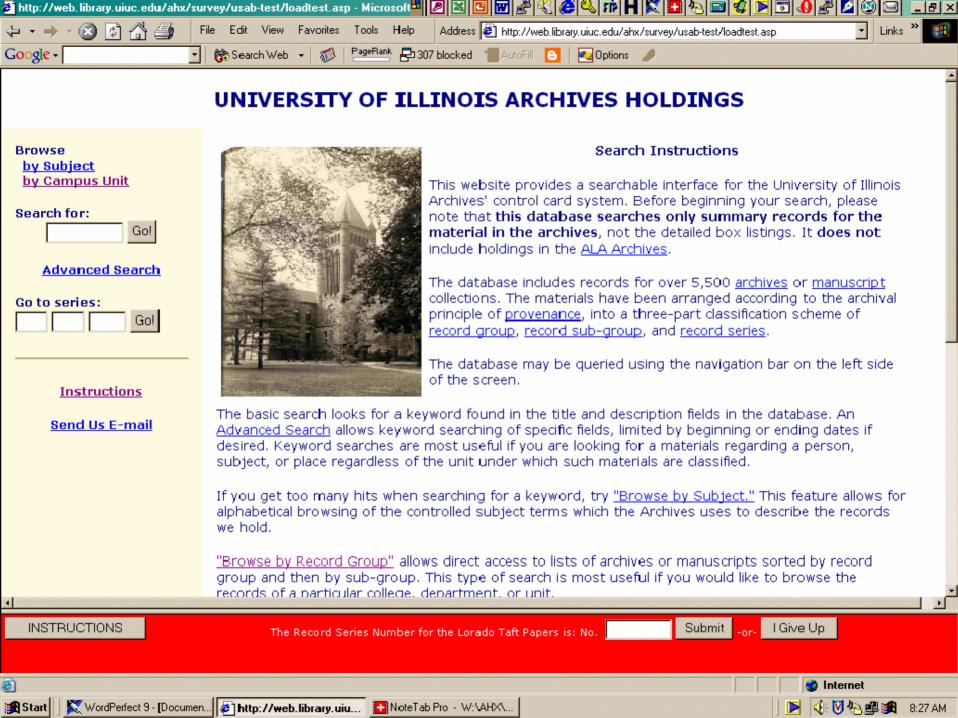
- focus: <u>user interaction</u>
- most user studies non-electronic
- studies of archival description not user centric
- study limited to directed searches
 - materials user strongly suspects might exist,
 where he/she has a search term in mind.
- also tests significance of domain and system expertise

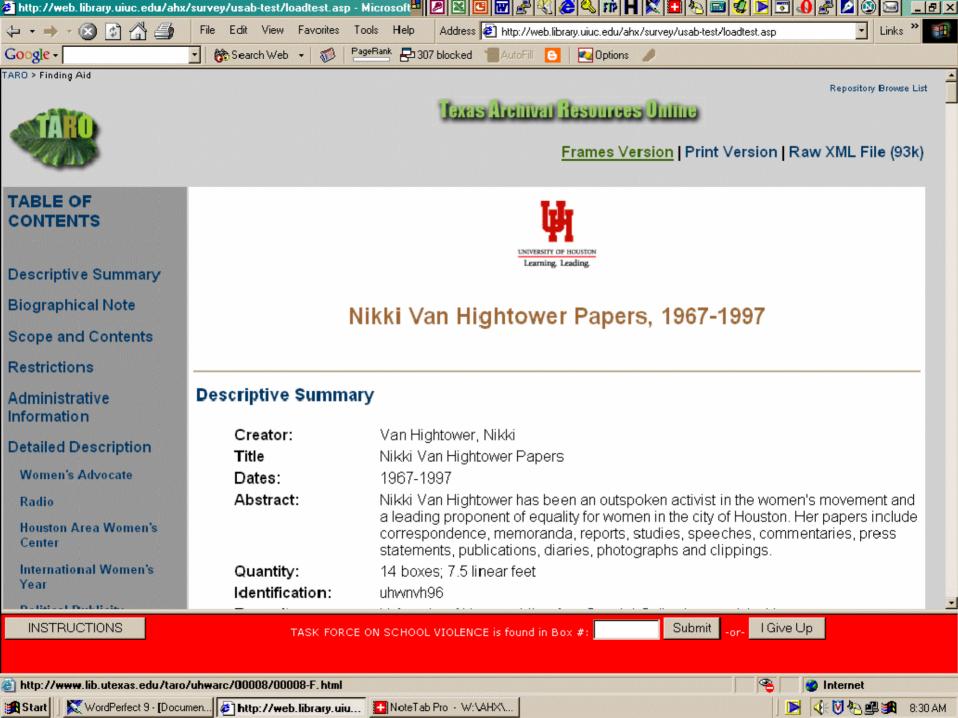
methodology, slide 1

- focus on looking for collections, looking for folders
- website (ASP driven)
 - survey instrument for demographics, experience
 - 8 usability tasks → directed searches
 - collection-level interfaces
 - 11 option via links→ University of North Carolina Mss Dept
 - 3 option, search, browse by subject or unit → UIUC
 - 2 options, search and alpha list → OAC
 - 1 option, alpha list → Princeton Public Policy Papers
 - folder-level interfaces
 - PDF→ Northwestern
 - non-searchable EAD, left nav bar → TARO, U. Houston
 - HTML, top table on contents → Princeton
 - searchable EAD w/ two pop up windows → Yale



🎒 Task Number 1 - Microsoft Internet Explorer





methodology, slide 2

- administered it both on and off-site
- during the test
 - system recorded answers and time spent search
 - observer recorded mouse movement, reactions
 - on site → post test interviews
 - off site → web form comments
- · after the test
 - coded, queried and analyzed data
 - ran descriptive stats
 - t-tests (measures significance of two sets of paired means, an indication if differences likely to be be replicated in population)
 - correlated times to survey results
 - transcribed interviews, examined submitted comments

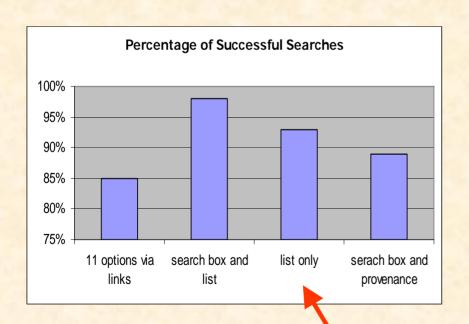
results, sample characteristics

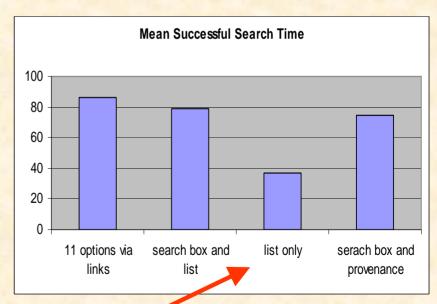
respondents

- 89 participants; 35 on-site, 54 off-site
- On-site mostly students (77%), off site archivists librarians (51%)
- 2/3 female
- domain experts
 - 32% archivists
- systems experts
 - 21% "power users" or better
- interview comments show tensions over service expectations

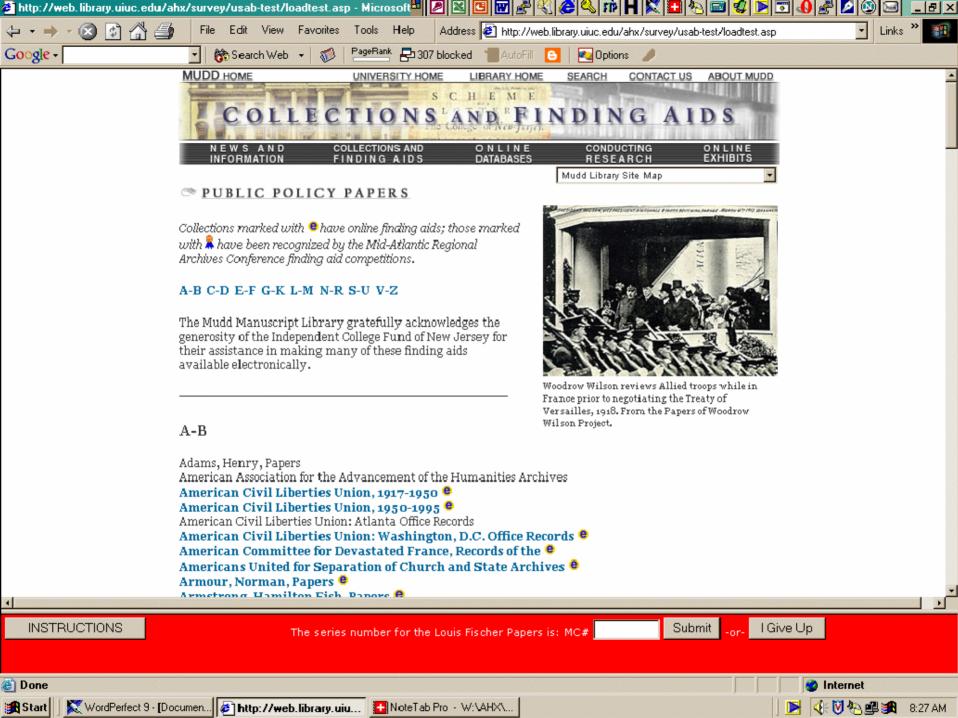
Quantitative results, collection search

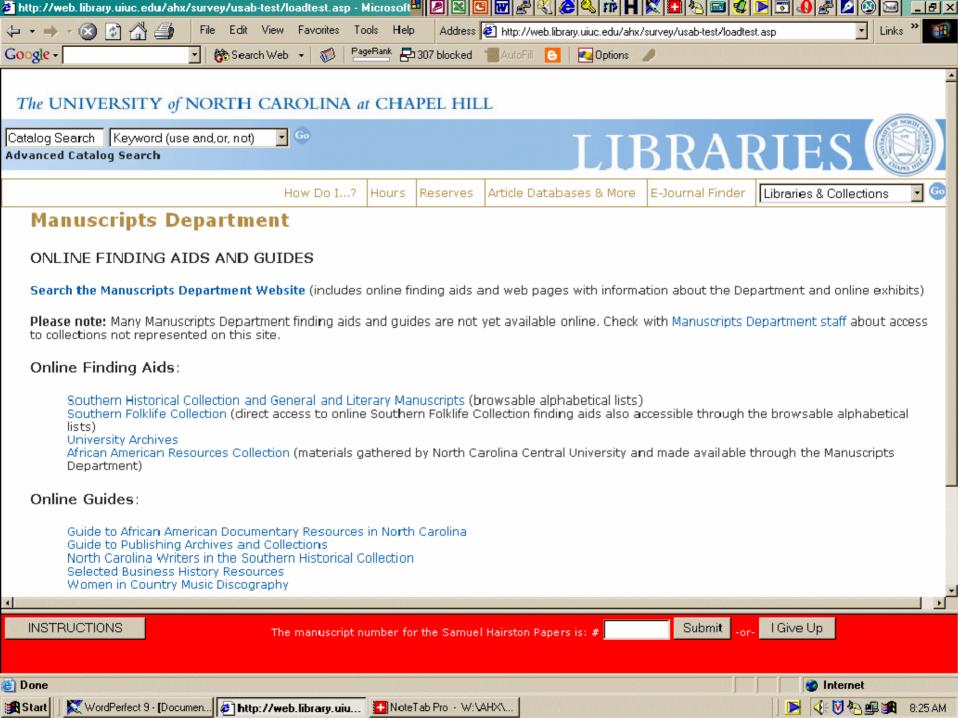
- tasks with fewest search options most successful
- alpha lists worked well
- Princeton design fastest, t-scores show significance

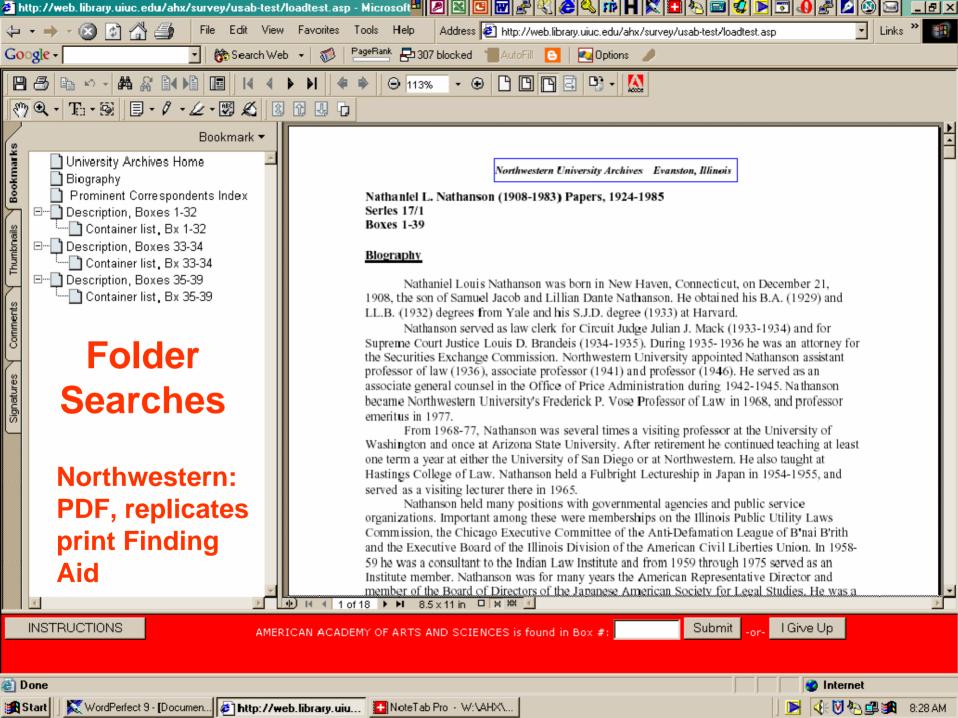


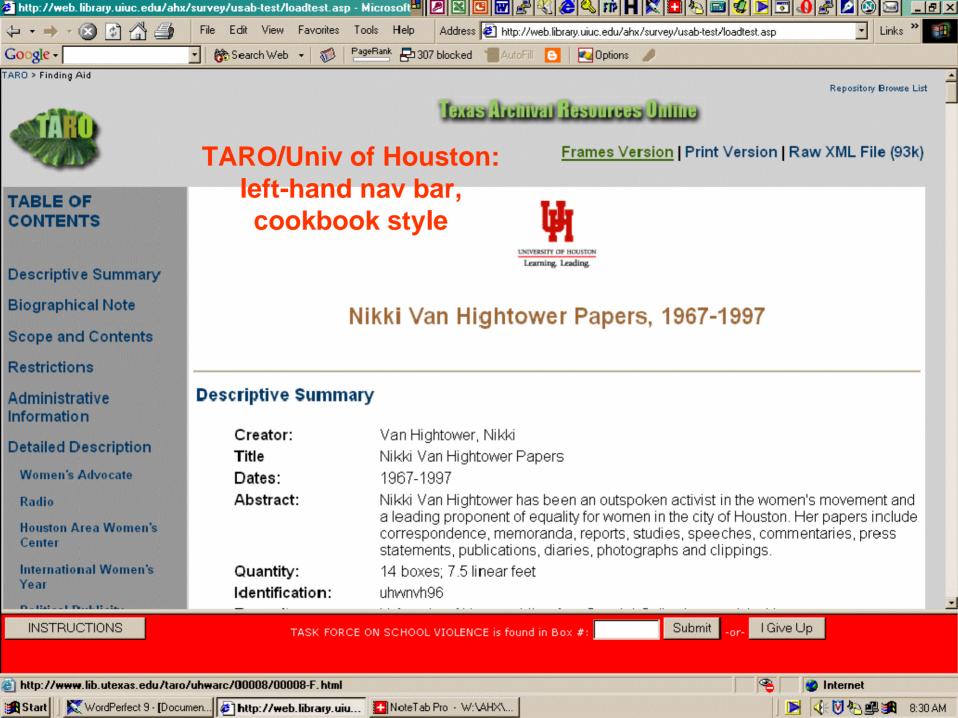


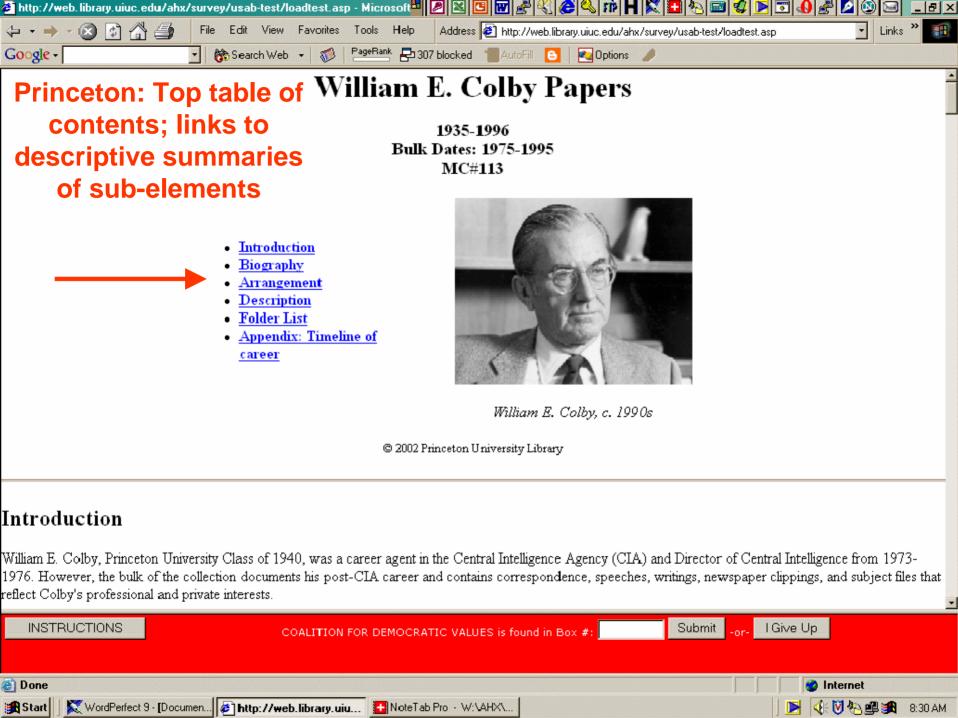
Princeton design

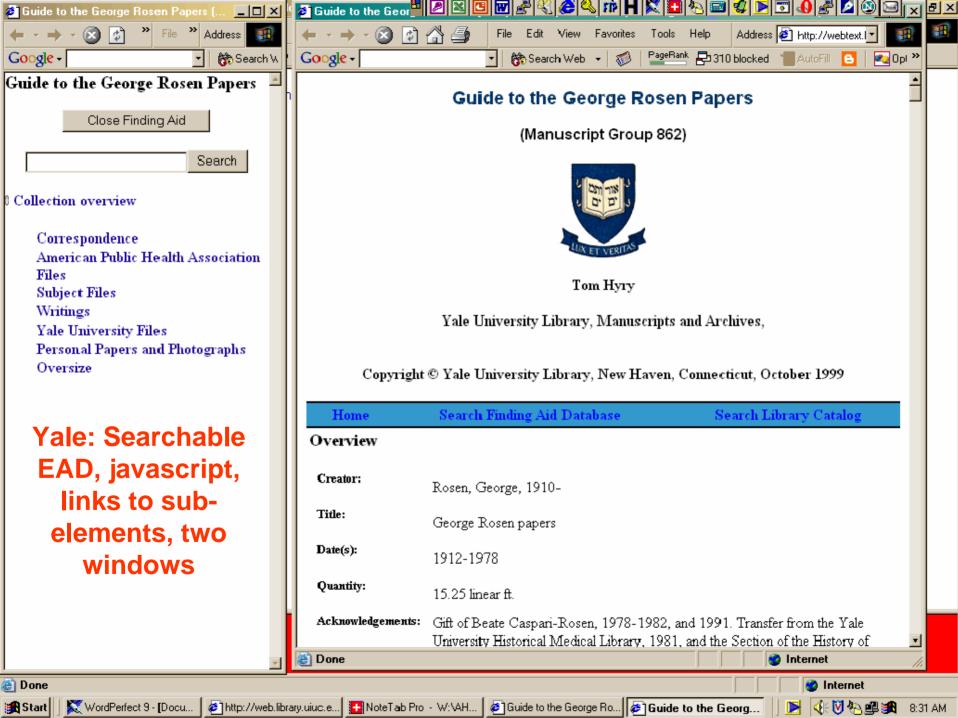






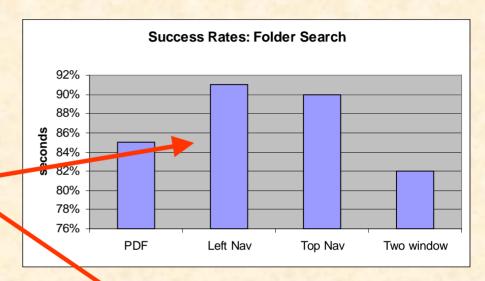


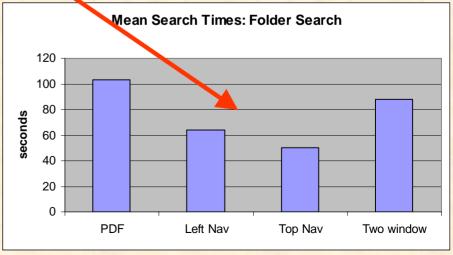




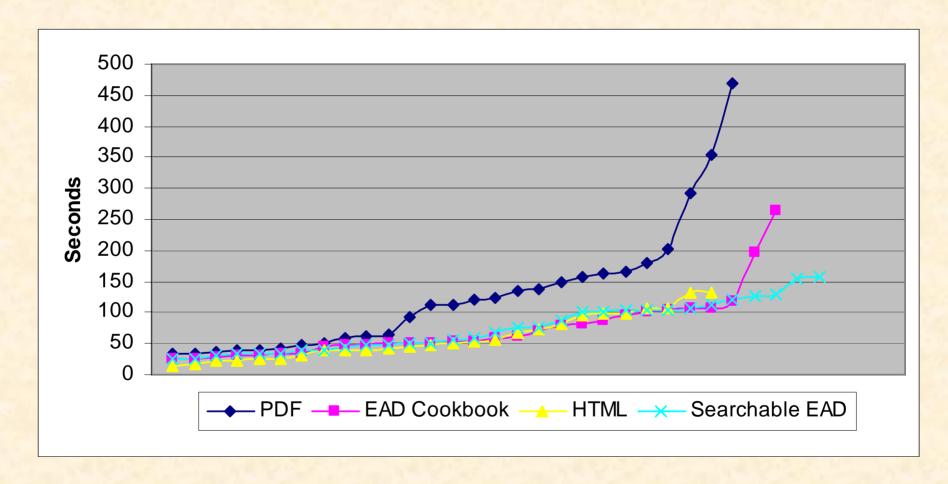
folder search results, slide 1

- overall success rates
 82-91%
- top TOC functionally superior based on tscores
- left nav bar also very good
- most difficulty using PDF
- t-scores show results valid for population





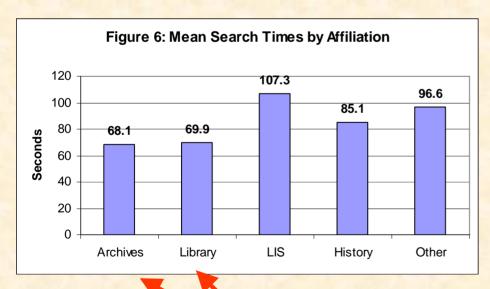
folder search results, slide 2

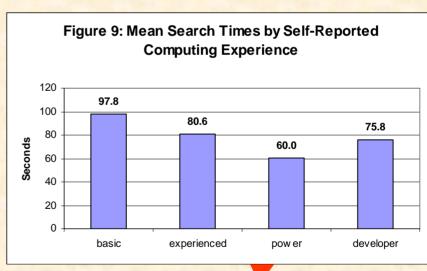


folder-level tasks, plotted search times on-site users only

survey/task correlations, slide 1

- speed not only imp. factor
- need finding aids and digital libraries that meet needs of novices, domain experts, and system experts
- these needs are very different

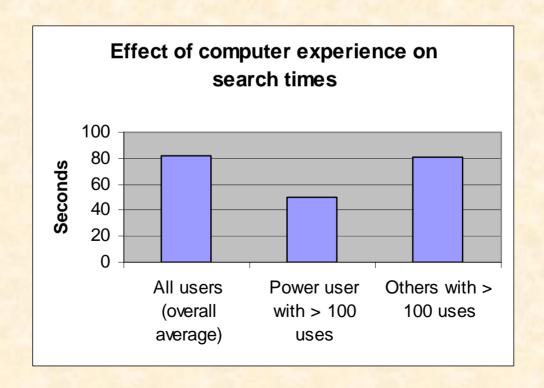




Domain and system experts

survey/task correlations, slide 2

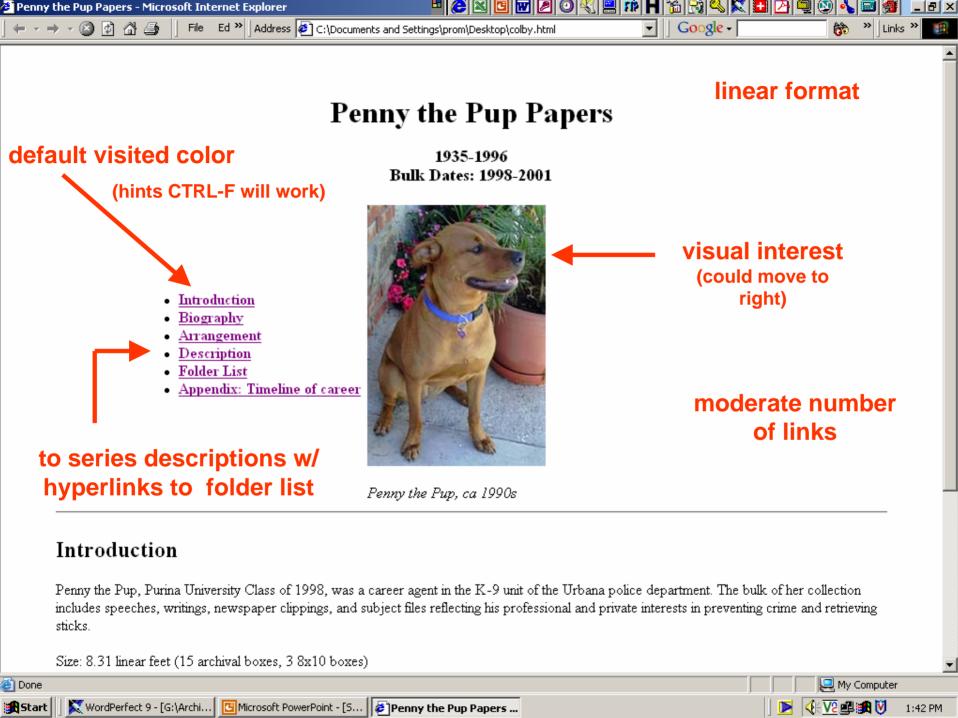
 speed in using electronic finding aids correlates more closely to computer experience (system expertise) than archival/library experience (domain expertise).



suggested design features

(based on observations, interviews and, comments)

- need complete description and context for domain experts
- provide browse option alongside search boxes for systems experts
 - Will use a search box if available
 - . . . but actually find known items faster w/ lists
- include option for search w/in single finding aid
 keep it simple
 - limit search options
 - no pop ups; beware complex javascript
 - don't break CTRL-F
- PDF?
 - use standard search algorithms (Google-like)



conclusion

this presentation, and a full version of the paper are available from a link at:

http://web.library.uiuc.edu/ahx/workpap/

I would like to thank the Research and Publication Committee of the University of Illinois Library, which provided support for the completion of this research.

Christopher J. Prom Assistant University Archivist prom@uiuc.edu