January 2006

Basic search and visual search: usability tests with EBSCOhost

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Basic Search and Visual Search:
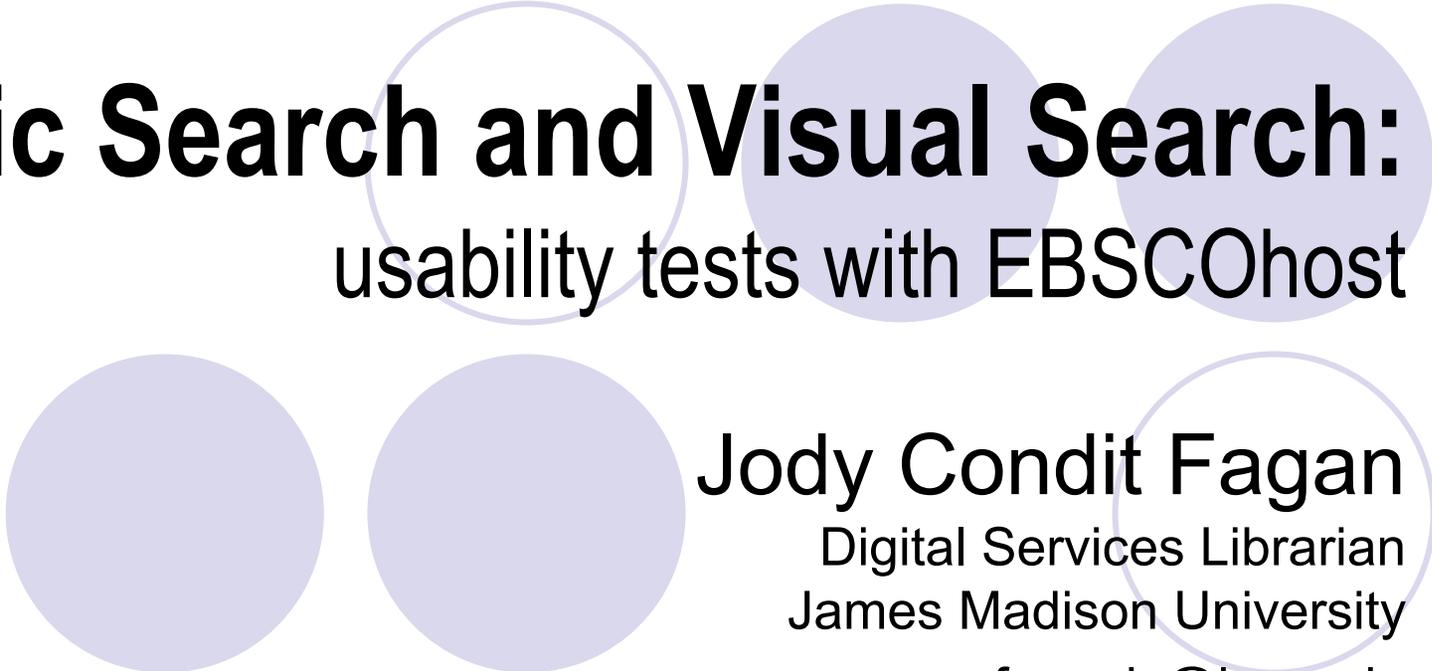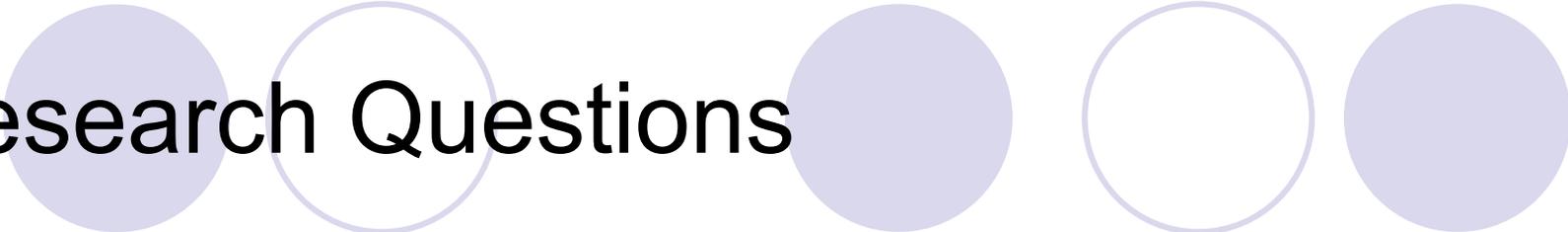## usability tests with EBSCOhost

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Electronic Resources & Libraries

Friday, March 24, 2006

Research Questions

- To what extent does EBSCO's basic search interface and visual search interface support student research?

- How does collaboration affect student research (with either interface)?

- How well did this usability testing method support the study of student research?

- Known item searching

- Other investigations??

Research Questions for today

- To what extent does EBSCO's basic search interface and visual search interface support student research?
  - How well does the interface support the intellectual process of the students?
  - Can users find and use the interface widgets
  - Did the students feel satisfied with the interface

Introductory Matters
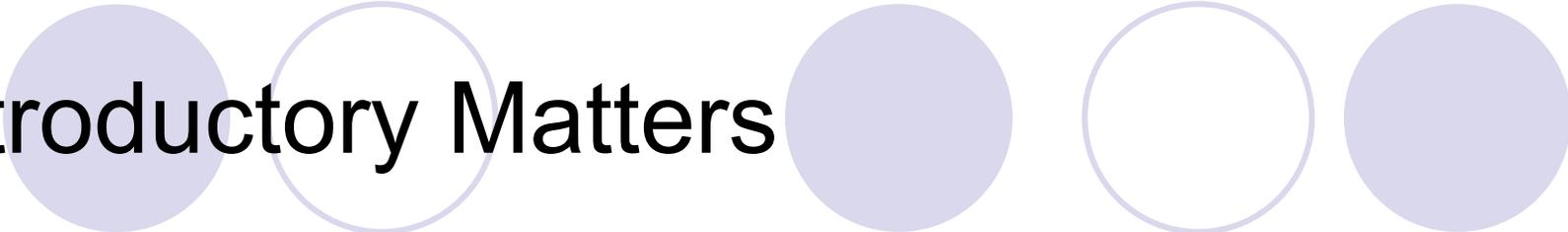
- Literature Review

- Other visual search interfaces?
  - ○ ComAbstracts (CIOS)
  - ○ http://www.FictionConnection.com
  - ○ XReferPlus

- "basic" database search interfaces

Context: James Madison University

- 15,574 FTE
- Focus on undergraduate education
- 10% 'minority'
- 3% African American
- Go for the Gold
- Information Skills Seeking Test

The Usability Test Environment:

- **Usability Lab at James Madison University Libraries**
  - ○ Morae
- **8 one-hour sessions:**
  - ○ 4 individuals
  - ○ 4 "groups of two"

The Usability Test Environment:

- EBSCO and Groxis provided access to the beta version of Visual Search

- Groxis provided financial incentives for student participants

- EBSCO and Groxis will be provided with the results and video clips

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Our student participants

- Generally underclassmen: the 2 students in group 2 were in their 3rd year. All others were in 1st or 2nd year

- Majors: Biology (2), pre-med, marketing, political science, undecided, communication sciences & disorders, management, counseling, hospitality philosophy, accounting, finance

Our student participants: research experience

Q. What do you normally use to do research?

- Google (6)
- Search engines
- The Internet – Google or Yahoo
- I don't have a certain method

- Google, library web site
- PubMed, WilsonOmniFile, EBSCO
- PsycINFO

Our student participants : EBSCOhost/Visual Search experience

- 6 had used basic EBSCO at least once before; 6 had not
- None had used a visual search interface before.

What they had to do
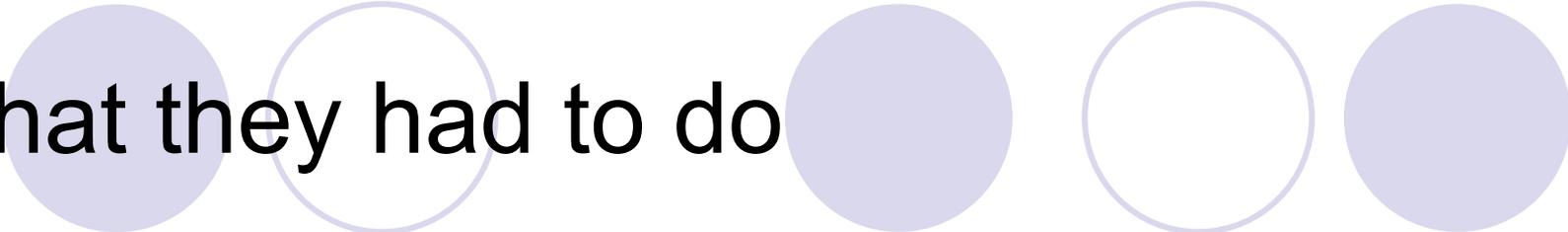
- Search on a general topic
  - How many are full text?
  - Limit to full text
- Identify three subtopics
- Search on one subtopic
  - Find a peer reviewed article
  - Save three articles for later

Findings: Overall
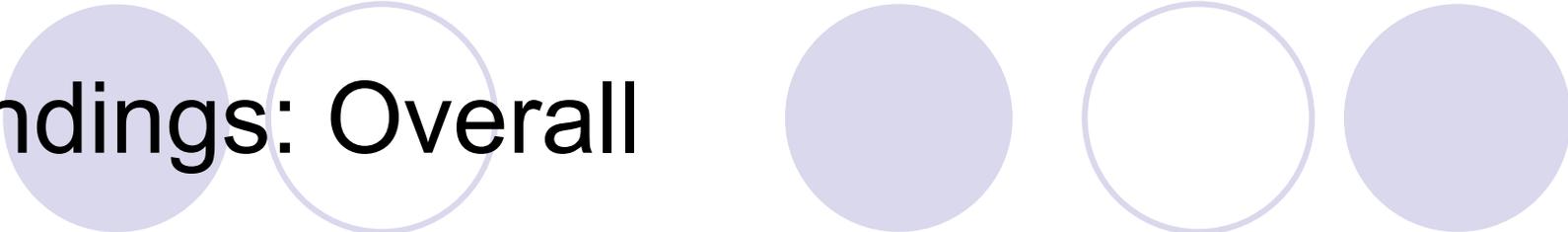
- Key downfall: Boolean searching
  - EBSCO admin allows libraries to change
- Students careful about reviewing results
- Our database interfaces are generally easy to use – and students will use the features
- The presence of subject terms in both interfaces is an aid to understanding results sets

The downfall: Boolean Searching
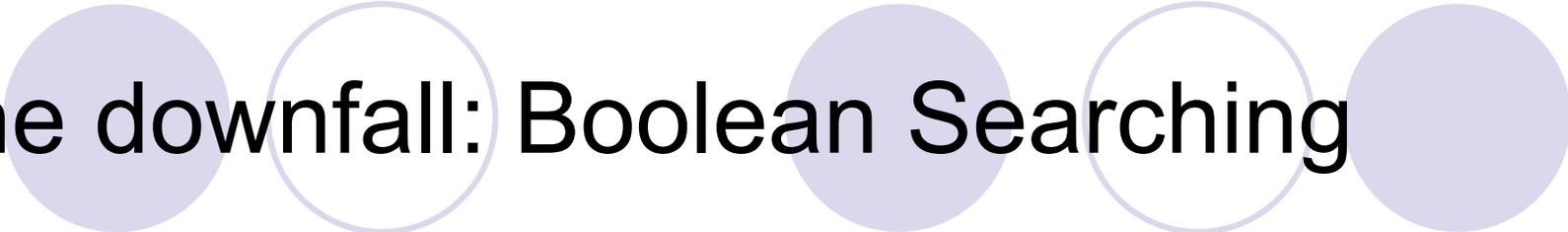
(video removed for privacy / confidentiality)
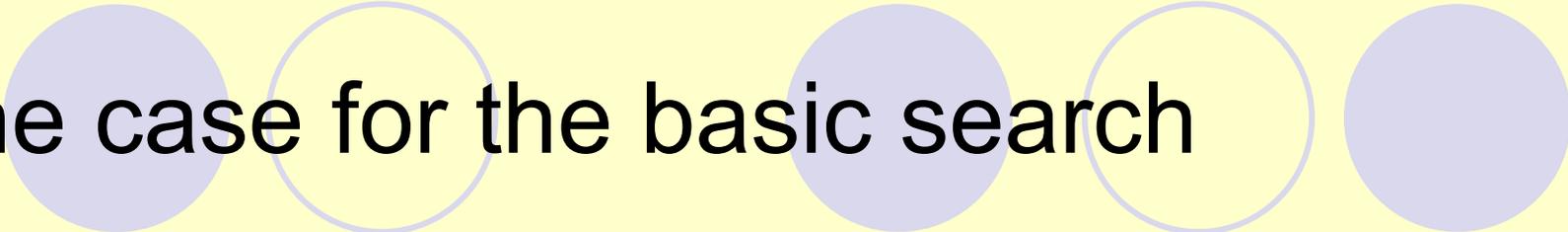
The case for the basic search

- To what extent does EBSCO's basic search interface support student research?
  - How well does the interface support the intellectual process of the students?
  - Can users find and use the interface widgets
  - Did the students feel satisfied with the interface

Paging through Results

- 4 groups went past the first page of results
- 2 groups did not get enough results for more than one page
- 2 groups did not get past the first page of results

Reading through results for relevance

- Four scanned through both titles and abstracts.

- One additionally chose to open full text

- Three groups scanned through titles (results page) only

Student 1

- biology / pre-med student

- 2 years at JMU

- has completed 15 research projects in her time at JMU

- What she uses to do research:
  - PubMed
  - Wilson OmniFile
  - EBSCO

Results, Student 1
basic search: "euthanasia"

- looked at results, full text, abstracts and list of references to come up with subtopics such as:
  - Euthanasia and healthy populations
  - Judaism and end of life
  - Catholicism and end of life.

Results, Student 1
visual search: "euthanasia"

- When using visual search, Student 1 just read her subtopics from categories without nearly as much investigation:
  - Euthanasia and the Netherlands
  - medical ethics
  - China and euthanasia

Results, Student 1 post-survey
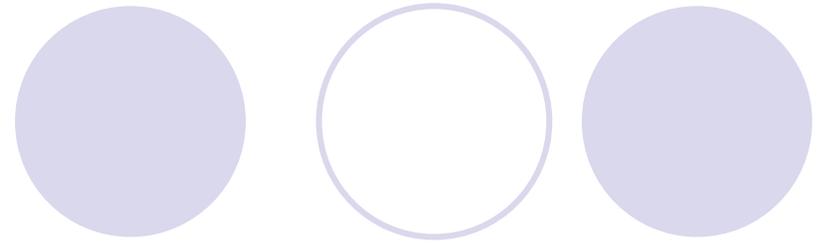
- "I liked using the regular one better because it was easier for me   more like what I was used to.

- "I think it's kind of confusing when [visual search] breaks it up into the topics for you. It may be helpful for some other people, but for the way my mind works I like just having all my results displayed out like on the regular one "

Can users find and use the interface widgets?
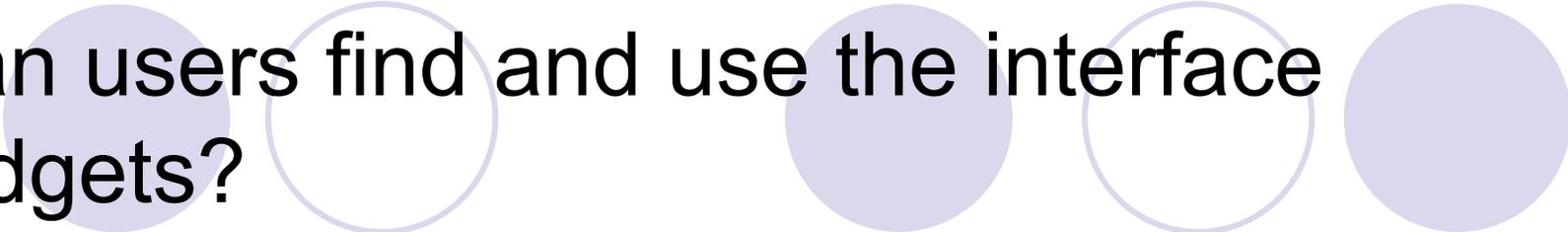
Can users find and use the interface widgets?

- Refine Search
- 7 of 8 sessions had no problem finding and using the EBSCOhost "Refine Search" panel
  - full text check box
  - date limiter
  - peer reviewed limiter
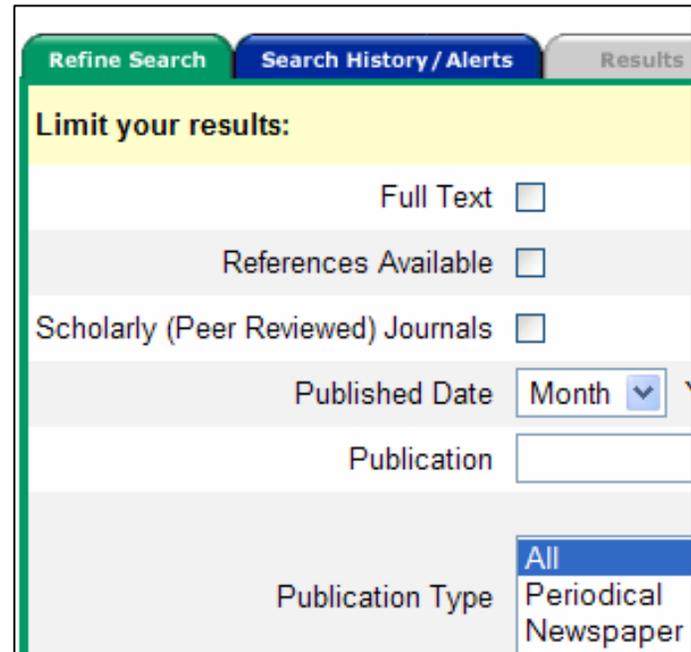
Can users find and use the interface widgets?

- All users could determine whether or not results had full text (from results list)

- When limiting to full text,
  - Two users used the Books / Monographs source type limiter on the results page
  - all others quickly found the checkbox on refine search.

| Refine Search | Search History / Alerts | Results | To store items added to the folder for a future session, Sign In to My EBSCOhost |

1 - 20 of 19716 Pages: 1 **2 3 4 5 Next**   Sort by : Date ▼

See: All Results 📄 Academic Journals   📖 Magazines   📰 Newspapers   📘 Books/Monographs   📁 Add (1-20)

Narrow Results by Subject:

1. Effect of water on the transmittance of glass plates with eroded surfaces.   By: Benbahouche, Saci; Roumili, Fouad; Seghir, Amor; Zegadi, Rabah. Journal of the European Ceramic Society, Jul2006, Vol. 26 Issue 9, p1673-1678, 6p; DOI: 10.1016/j.jeurceramsoc.2005.03.249; (AN 20023671)

Can users find and use the interface widgets?

- The folder / print / save / email

- Three groups demonstrated full use of the folder.

- Three groups started to use the folder
  - two did not use "Folder has items" to print / email / save
  - one tried MyEBSCOhost and had a technical glitch

- Two students did not use the folder
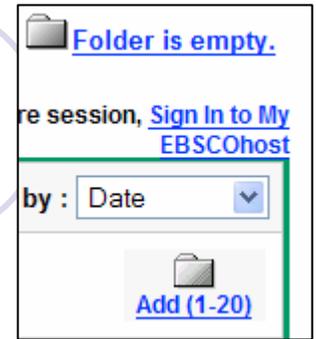
Can users find and use the interface widgets?

- Peer Reviewed

- Six groups clearly believed that the peer reviewed checkbox was all that was necessary to determine peer-reviewed status

- Two groups verbalized (in detail) what peer reviewed meant.

Can users find and use the interface widgets?

- Subjects (LH column) Four groups used the subjects in the LH column
- Two groups saw the subjects (i.e. ran the mouse over them) but did not use
- Two did not seem to see them
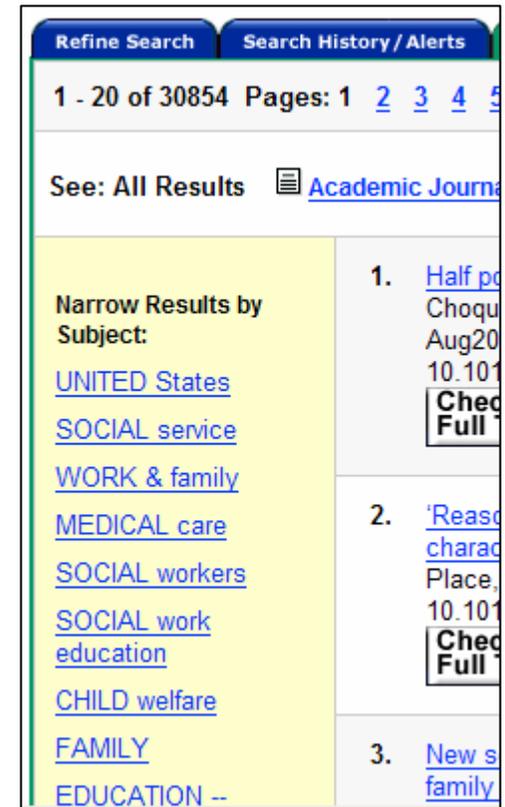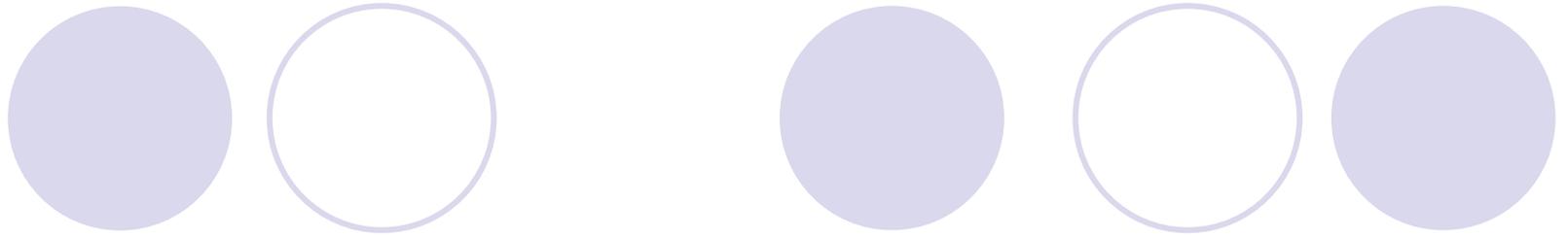
(video removed for privacy / confidentiality)

Post-Test Questions: Strengths of basic EBSCO?

- 7 of 8 groups talked about the search options: field searching; limiters
  - "the ability to search in fields, especially for publications and within publications"
  - "I thought it was easier to specify the search for the full text and the peer reviewed – it had a separate page for that."
  - "They give you all the filter options as opposed to the other one"

Post-Test Questions: Strengths of basic EBSCO? (cont'd)

- 5 of 8 groups talked about how it was *familiar* to them:
  - "Seems like the standard search engine"
  - "it was organized in a way that we're used to more"

- 4 of 8 groups mentioned that it was clear or organized
  - "It was nice how it was really clearly set out .. like, everything's in a line"

Post-Test Questions: Weaknesses of basic EBSCO?

- "Not having a spot to put in words NOT to search for"

- "Like Google and Yahoo have like a clip from the article that has the keyword in it, the line before and the line after .. and that might be helpful – might help you figure out whether or not its something you need."

- "A weakness is that it's broad, unless you narrow it [you have to] type in keywords to narrow it down yourself."

Post-Test Questions:
Which one did you *like* using better?

- 4 of 8 said the basic EBSCO search
  - "it was easier for me   more like what I was used to."
  - "I'm more familiar with that type of a search"
  - "the regular one   I like to get things done."
  - "I felt more comfortable using that one"

The case for the visual search

- To what extent does EBSCO's visual search interface support student research?
  - How well does the interface support the intellectual process of the students?
  - Can users find and use the interface widgets
  - Did the students feel satisfied with the interface
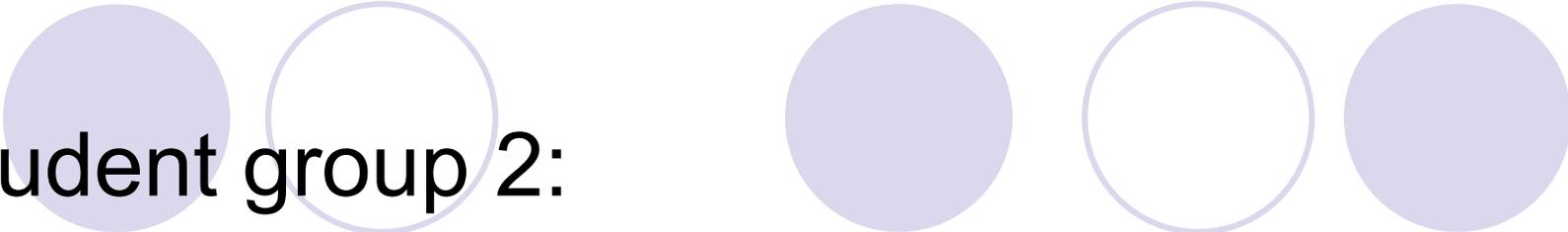
Student group 2:

- At JMU 2.5 years

- Marketing, Political Science

- have done 20-25 ; 25-35 research projects in time at JMU

- What they use for research: Google

- could not list any library databases, but mentioned Business database web page.

Results, Student group 2: basic search, "world baseball classic"

- No creativity: pretty much accepted what was in front of them
- Subtopics:
  - Alex Rodriguez
  - Barry Bonds
  - home run derby
- "barry bonds steroids"

Results, Student group 2:
Visual Search,
"global warming"

- Identified two subtopics from circles: "the U.S.," "global temperature changes,"
- Then Student 2b asked "what's the difference between "global temperature changes" and "climate changes"?
- Student 2a clicks on Climatic changes. "ooo interesting"
- Chose Atmospheric plants circle to refine search

Results, Student group 2: post-survey (visual)

- 2a: "it's kinda cool that it narrows down the subtopics for you and then it has the articles inside of it   but it's also just a little confusing because you're not used to it"

- 2a: "Liked visual one better. It seemed like it had a lot more information "

- 2b: "I think it's easier to use, but I don' t trust it"
  2b: "I would use this when I was doing a research paper and had more time and wanted to learn about the subject. It really lays out the topic for you pretty well.
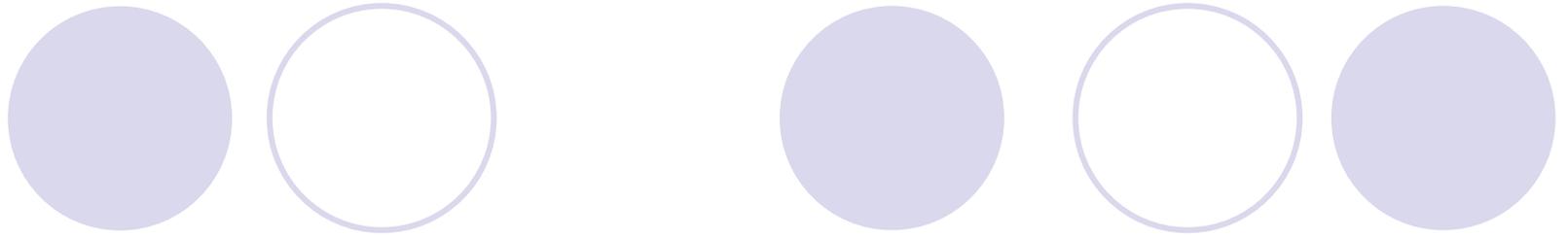
(video removed for privacy / confidentiality)

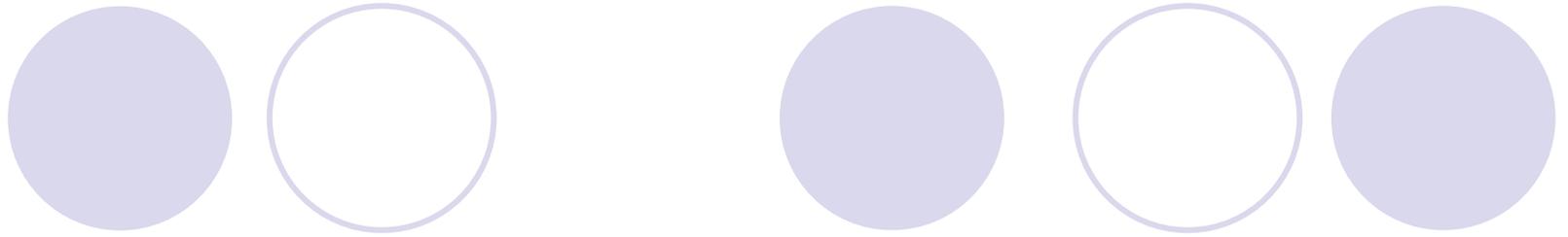# Can users find and use the interface widgets?
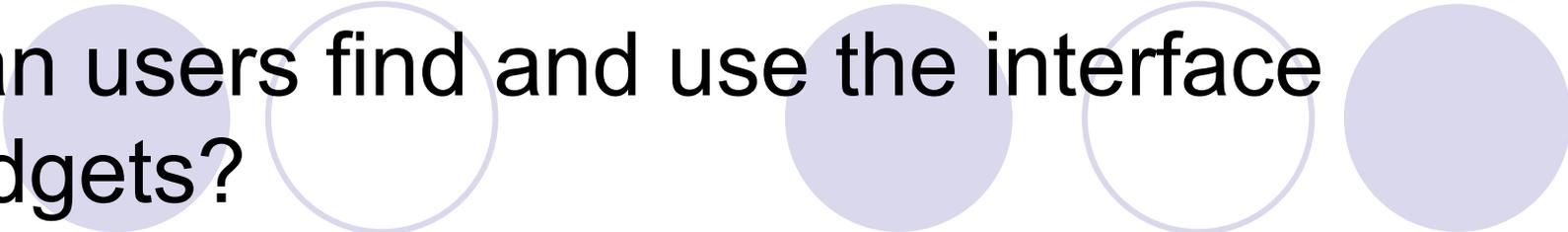
Can users find and use the interface widgets?

- Filter Panel

- 7 of 8 groups found and used the filter panel
  - one group took until task 3 to find it
  - two of these groups do not use its full text function

- Some problems
  - Entering words into the title keyword box
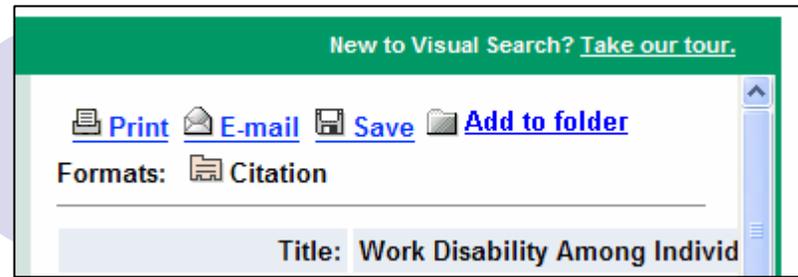 - Do I need to click search again?

(video removed for privacy / confidentiality)

Can users find and use the interface widgets?

- 7 groups had no problems with using the full text limiter

- 2 of the 8 had some trouble finding it.
  - rolled over squares to determine full text
  - clicked on square and looked in citation view to determine full text

Can users find and use the interface widgets?

New to Visual Search? Take our tour.

🖨 Print ✉ E-mail 💾 Save 📁 **Add to folder**
Formats: 🖼 Citation

Title: **Work Disability Among Individ**

- 4 of 8 groups used the Add to Folder without problems

- 1 added but did not visit the folder

- 2 groups used Save to save articles individually but did not save them

- 1 group just pointed out the print / email / save functions on citation view

Post-Test Questions: Strengths of Visual Search

- 7 out of 8 mentioned the grouping of subtopics
  - "It groups the articles for you better. It kinda like gives you the subtopics when you get into it and search it and that's pretty cool "
  - "you can look and see an outline of where you want to go   it's easy to pinpoint it on screen like that's where I want to go with my research"
  - "it's kinda cool that it narrows down the subtopics for you and then it has the articles inside of it"

# Post-Test Questions: Strengths of Visual Search (misc)

- You can show a lot of information on one screen without scrolling

- I liked the colors

- I like the circles and squares – the symbols register easily

Post-Test Questions: Weaknesses of Visual Search

- 4 out of 8 had some confusion about the content
  - It may not have as many results. Like if you typed in school on the other one, it might have like 8,000 pages on this you have like 50 results
  - I typed in a word, it seemed to not match up even though that word was in the title of a lot of the articles I did by just refining it by typing in drugs in sports instead of steroids even though I was looking for steroids.

- 2 of 8 said that they were just not used to it

# Q. Which one did you *like* using better?

- 4 of 8 groups said Visual:
  - "colorful   intriguing"
  - "It's kind of like a little game. Like you're trying to find the hidden piece"
  - "It seemed like it had a lot more information   cool futuristic"
  - "it keeps you focused at what you are doing"
  - "I've been teaching my mom how to use technology and the visual search would be so much easier for her to get, because its just looks like someone drew it on there"
  - Fun
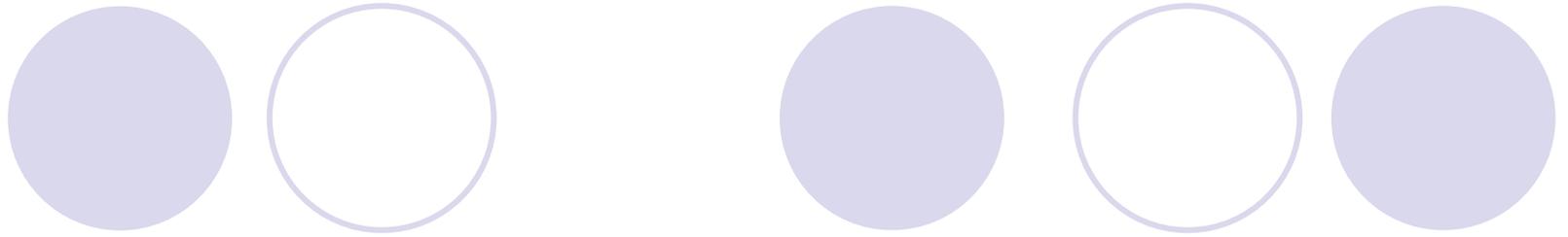
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The case for *both*
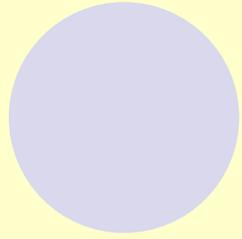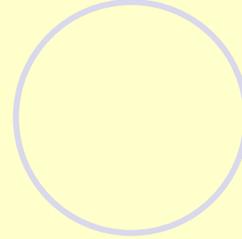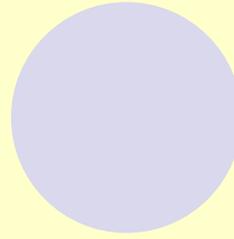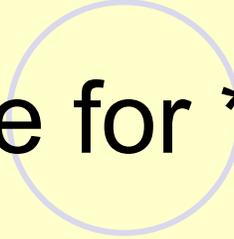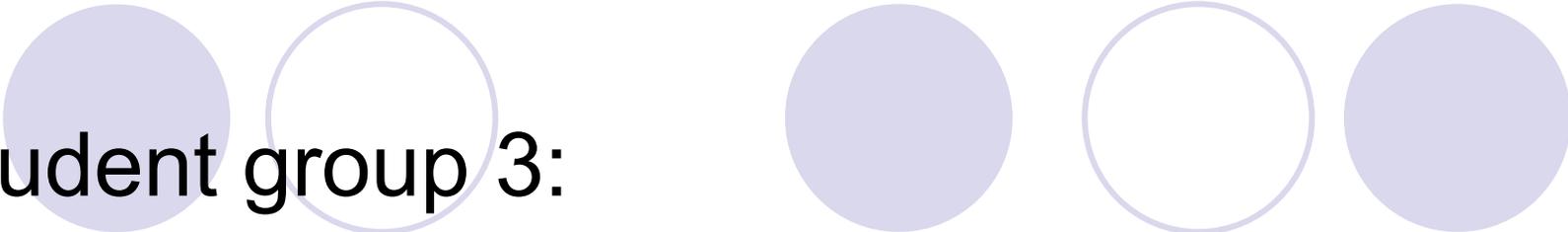
Student group 3:

- Finishing second year at JMU
- Hospitality / management; Philosophy
- What do you usually use for doing research? Google
- How many research projects at JMU? 4-6; 5
- Have not used EBSCO or VS before

# Results, Student group 3: basic: "cochlear implants"

- Subtopics identified by reading abstracts
  - Difference between getting a cochlear implant when you're younger vs. older
  - Does the inner ear implant work for children who are born deaf or better for children that become deaf
  - How the implant works
- Unsuccessful at subtopic searches (boolean)
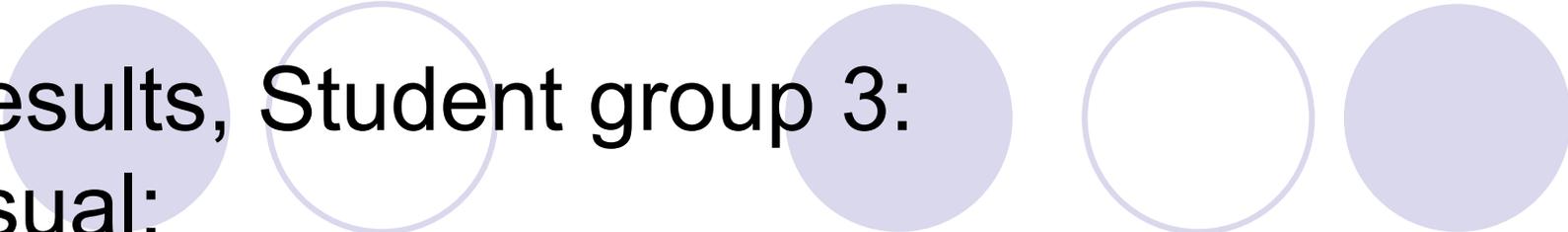
Results, Student group 3: visual: "immigration"

- Subtopics identified from scrolling over articles and reading details
  - second generation
  - border security
  - citizenship
- Easy to explore these subtopics

Results, Student group 3: post-survey
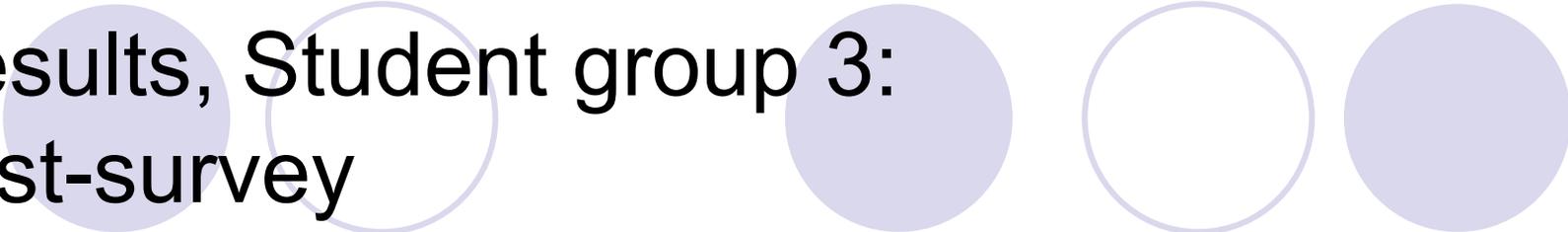
- 3B: "If I knew what I wanted to look for, I'd probably pick the first one. But if it was a really really broad topic and I didn't know how to separate it, I'd use the Visual one because it already separates it for me."
- 3A: "that's what I would have said too"

Q. Give examples of two situations general consensus

- Most students saw the basic search as the best option for
  - When they knew what they were looking for
  - When they needed to use search options
  - When they were short on time
- Visual Search was seen as the best option for
  - General topics
  - Topics where there's a lot of information
 - Getting to know their topic better

Other comments

- I guess you should put some of the filters on the [basic search] on to this one [visual]
- When it will become available?
- Is there a way to do the peer reviewed on this? (Visual Search)
- maybe GWRIT, if you had to write your first paper on this, where you had to do it this way, that might be helpful.
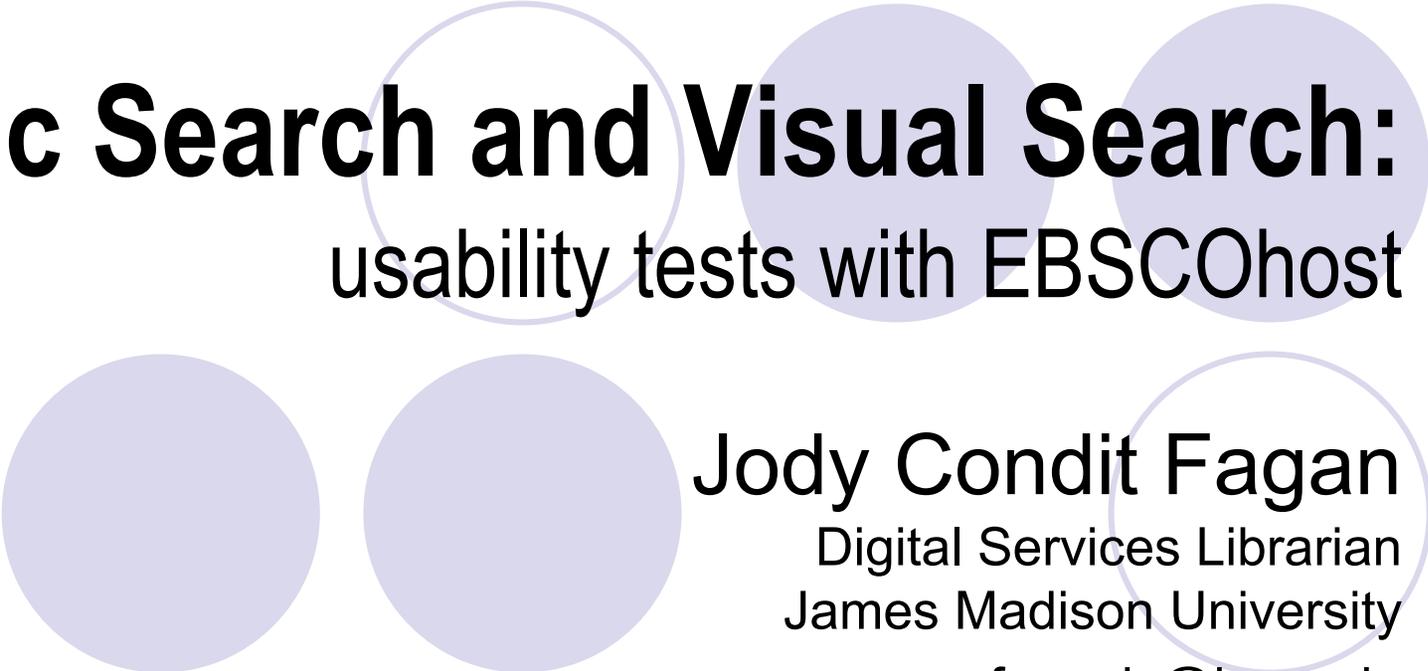
Findings: Overall
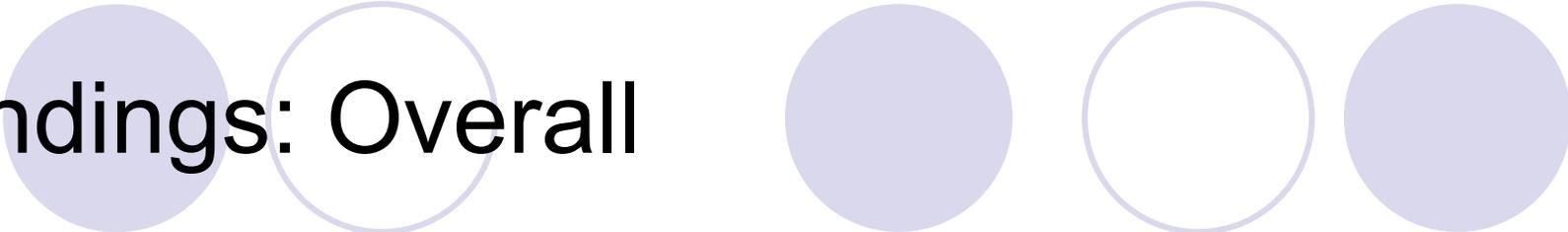
- What should librarians take away from this?
  - The presence of subject terms in both interfaces is an aid to understanding results sets.
  - Basic Search: Perhaps phrase searching should be changed to AND search
  - Don't hesitate to try Visual Search with your students!

Future Research
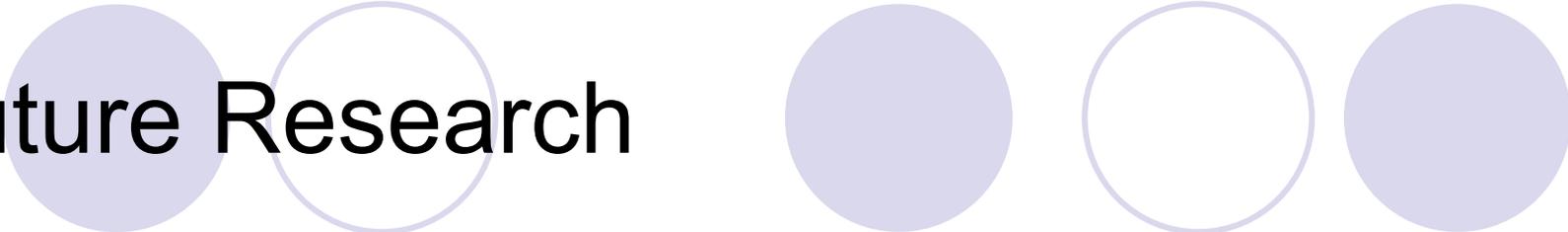
- Test EBSCO's subject term structure with student topics
  - Body image: great
  - Snowboarding: not so great
- "Grid" vs. one search box
- How does collaboration affect student research (with either interface)?
- How well did this usability testing method support the study of student research?

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