Browse and Search in academic information seeking

Heuristic (Expert) Evaluation of a Microsoft Academic Search Web Tool

Hui Zhang
huizhang@uw.edu

Why add browse to academic search?

- Researchers and students often find it difficult to search for academic publications or evaluate the credibility of the academic content they find using search tools [1]
- There are many "Fuzzy search publications" that a user is looking for but does not know what search terms to use to find them. They hide behind a wall of vagueness: the users don't know how to ask for them.

1. Studies by Head, A. J. & Eisenberg, M. B., retrieved from http://projectinfolit.org. Previous studies done on this project confirmed these results.

Method and Instruments

The balance…
When testing with external experts,
"informed evaluation" is as important as "fresh eyes".

We created the following model to meet this goal:

Introduce the project → Explain the purpose of design → Introduce new terms that will be used in the study → Gather first impression on prototypes

Three Elements:

Equipment
A laptop with camera
Software: Morae
Prototype or mockups

Document
Well prepared test questions, tasks, and rating sheets

External experts
We organized a panel of five student experts specialized in User Experience research and design, information architecture, or HCI

Evaluation Framework

Effectiveness: Does this tool behave in the way the users expect it to?
Efficiency: How quickly can the user's goal be accomplished?
Usefulness: Does this tool enable users to achieve their goals?
Learnability: Does it require training to use this tool?
Satisfaction: User's feelings and opinions of this product
Design suggestions: How might you design it differently?

* Usability attributes from *Handbook of Usability Testing*

- Rate importance of components on a rating sheet
- Rate 3 design scenarios and alternatives
- Gather feedback on design components

Impact

- Added value to the design process by bringing in external experts
- Identified key design flaws and provided timely feedback to validate and inform design decisions

Key Insights

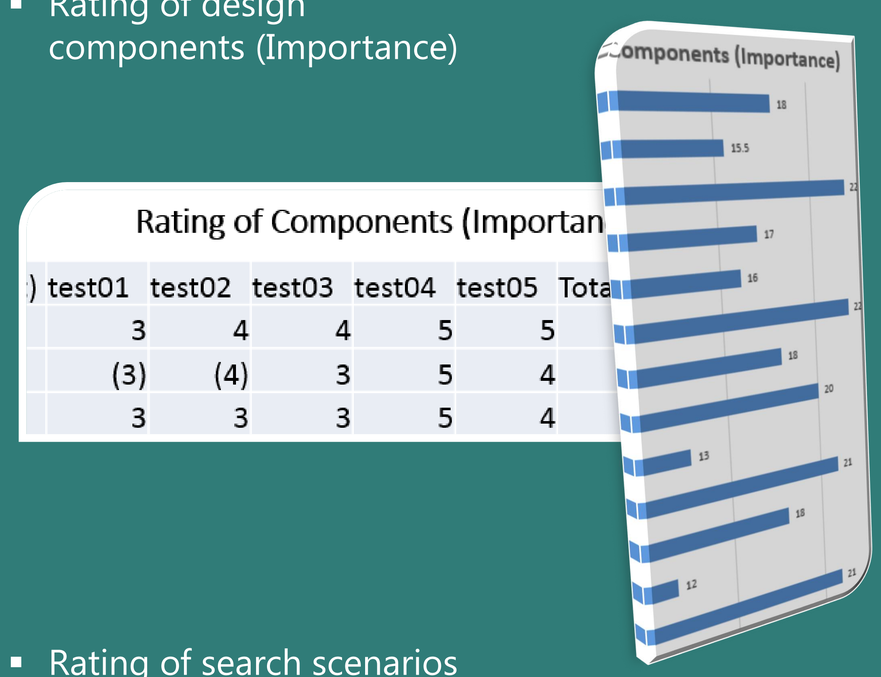
Browse helps with finding "Fuzzy search publications"

Browse triggers ideas and helps organize ideas for writing a research paper

Users expect to see search results immediately after performing a search

Example analysis and reporting

- Rating of design components (Importance)



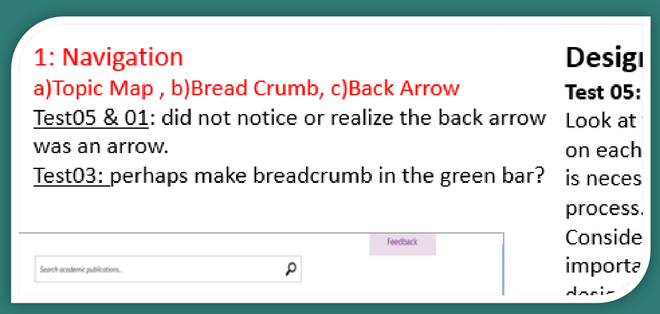
Rating of Components (Importan

)	test01	test02	test03	test04	test05	Tota
	3	4	4	5	5	
	(3)	(4)	3	5	4	
	3	3	3	5	4	

- Rating of search scenarios

	test01	test02	test03	test04	test05
	3>2>1	1>3>2	3=2>1	3>2>1	3>2>1

- Design suggestions on prototype



- Highlight video clips featuring the most important findings

Information School
UNIVERSITY of WASHINGTON

Capstone 2013 | Advisor: Mike Crandall
Sponsor: Josh Barnes and Alex Wade at Microsoft Research

Microsoft Research