

Group SOZ

Evaluation of Project

CSE 4461 Hypermedia & Multimedia Tech
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Since last presentation...

- Made hypermedia system.
- Changed the testing material.
- Changed to screen recording.

Methodology - Intent

- Adaptive hypermedia
- Evaluation
- Two navigation approach
- Performance and user experience

Methodology - Participants

- 20 Participants
- Recruited randomly from the campus
- Unpaid volunteers
- User Model

Methodology - Apparatus

Experiment: Macbook Pro 15.6, with touchpad

Video Recording: Quicktime Player

Timing: iPhone (by hand)

Questionnaire: Two-sided

A) Questions before tasks.

1) What is your gender? Male____ Female____

2) What is your age? _____

3) How many hours do you spend on the web per c

0~2

2~4

4~7

7~

C) Questions after tasks.

1) How easy was it to find the answer you want?

Very Hard

1

2

3

4

5

Very Easy

(Answer 2a) if link annotation software was used, 2b) if the link generation software was used.)

2a) You were presented with a technique that had links changing states as you navigated. Did you find this effect useful?

Not useful

1

2

3

4

5

Very helpful

2b) You were presented with a technique that had recommended next links presented at the bottom of the page as you navigated. Did you find this effect useful?

Not useful

1

2

3

4

5

Very helpful

3) Were there any specific difficulties or problems when using the system to find your answer? If so, please state the problem.

A participant doing the experiment



SourceCode — java — 80x24
Pros and Cons of Adaptive Hypermedia in Web-based Education.htm
RevisedGroupS.0.Z.TopicSpecification (1).pdf

Screen Recording
Zero KB
fig1.gif
methodtechniqueadaptive.pdf
soz_M1_Content.pdf
soz_M1_Questionnaire_and_Tasks (1).pdf
soz_M1_Questionnaire_and_Tasks.pdf
test.mov
test3.mov
SissimatoMacBook-Pro:Hypermedia sissi\$ cd
SissimatoMacBook-Pro:SourceCode sissi\$ ls
LinkAnno.class LinkGen.java
LinkAnno.java LinkGenFrame.class
LinkAnnoFrame.class LinkLabel.class
LinkGen.class LinkLabel.java
SissimatoMacBook-Pro:SourceCode sissi\$ java

Introduction
Historical Context
Libretto
Composition
Morality
Roles
Synopsis
Early Performances
Rediscovery
Music
Editions
References
Further reading

Link annotation

This program contains information about L'incoronazione di Poppea. The text located on the left half of the screen are links to content.

Software

Custom made navigation systems:

Link Annotation

Link Generation

Link annotation

Introduction	Claudio Monteverdi
	Giovanni Busenello
	Original Manuscript
	The Opera
Historical Context	
Libretto	
Composition	
Morality	
Roles	
Synopsis	
Early Performances	
Rediscovery	
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Further reading	

L'incoronazione di Poppea is an Italian opera. The opera is created by Claudio Monteverdi, with a libretto by Giovanni Francesco Busenello. It is one of the first operas to use historical events and people.

Link generation

Introduction
Historical Context
Libretto
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Further reading

This program contains information about L'incoronazione di Poppea. The texts highlighted in green are links to content.

Recommended next links	
Introduction	Historical Context
Libretto	Composition

Methodology - Procedure

- Introduce the navigation system used
- Brief on the experiment procedure

Participant:

- Pre-task questions
- Find Answer for two prepared questions
- Post-task questions

Examiner:

- Count Time
- Record Screen
- Process Data

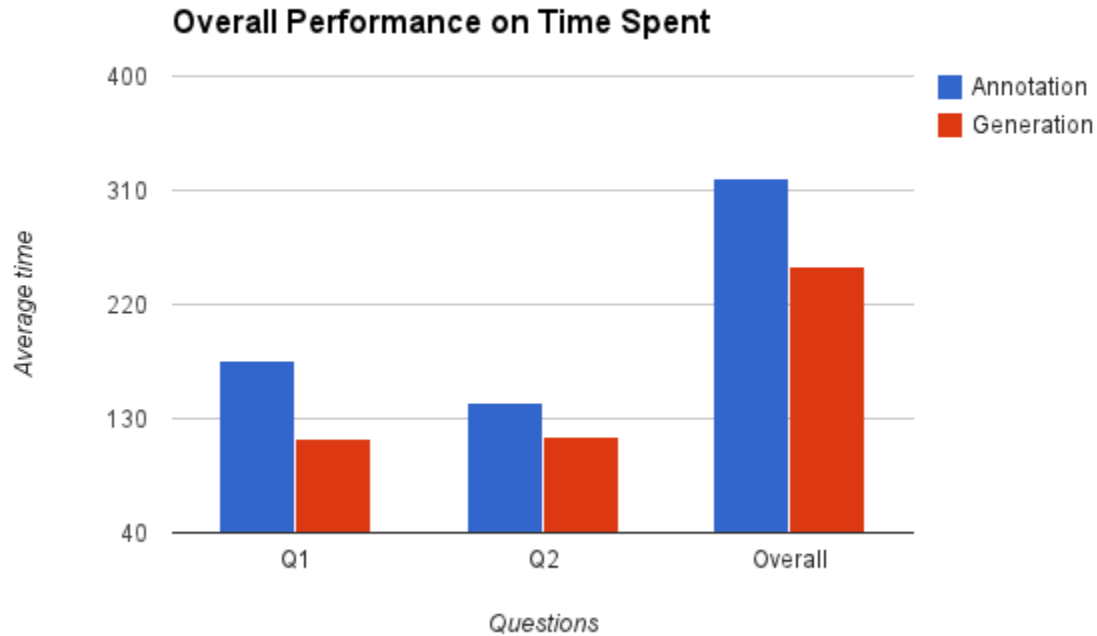
Data From Recording

- Time taken to find answer
- Pages visited
- Relevant pages visited
- Recommended links used

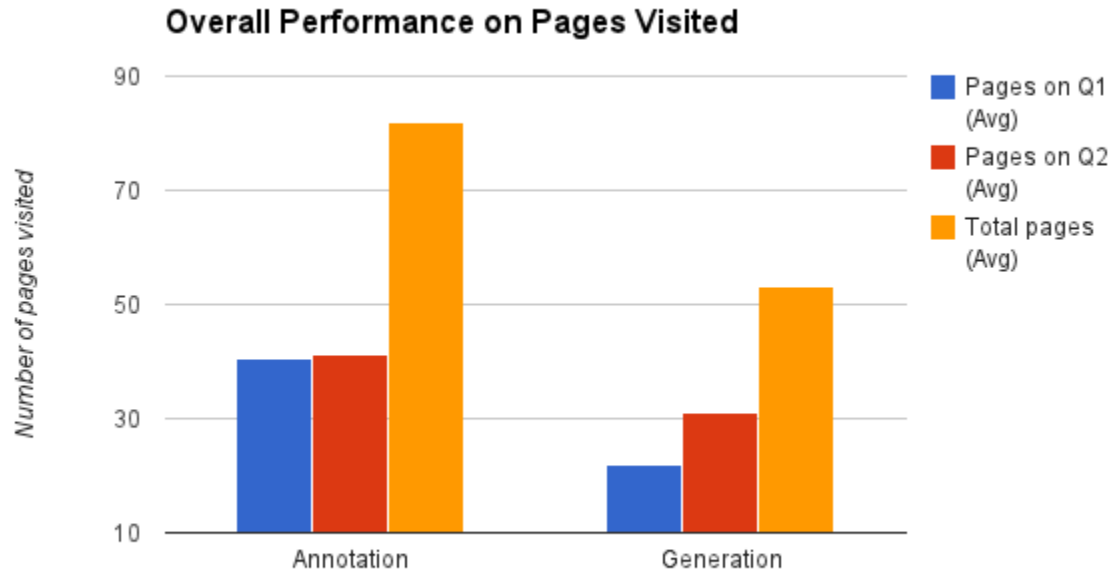
Methodology - Design

- Between Subject
- Independent Variables : Approach
 - Level: Link Annotation, Link Generation
- Dependent Variables : Performance, User experience

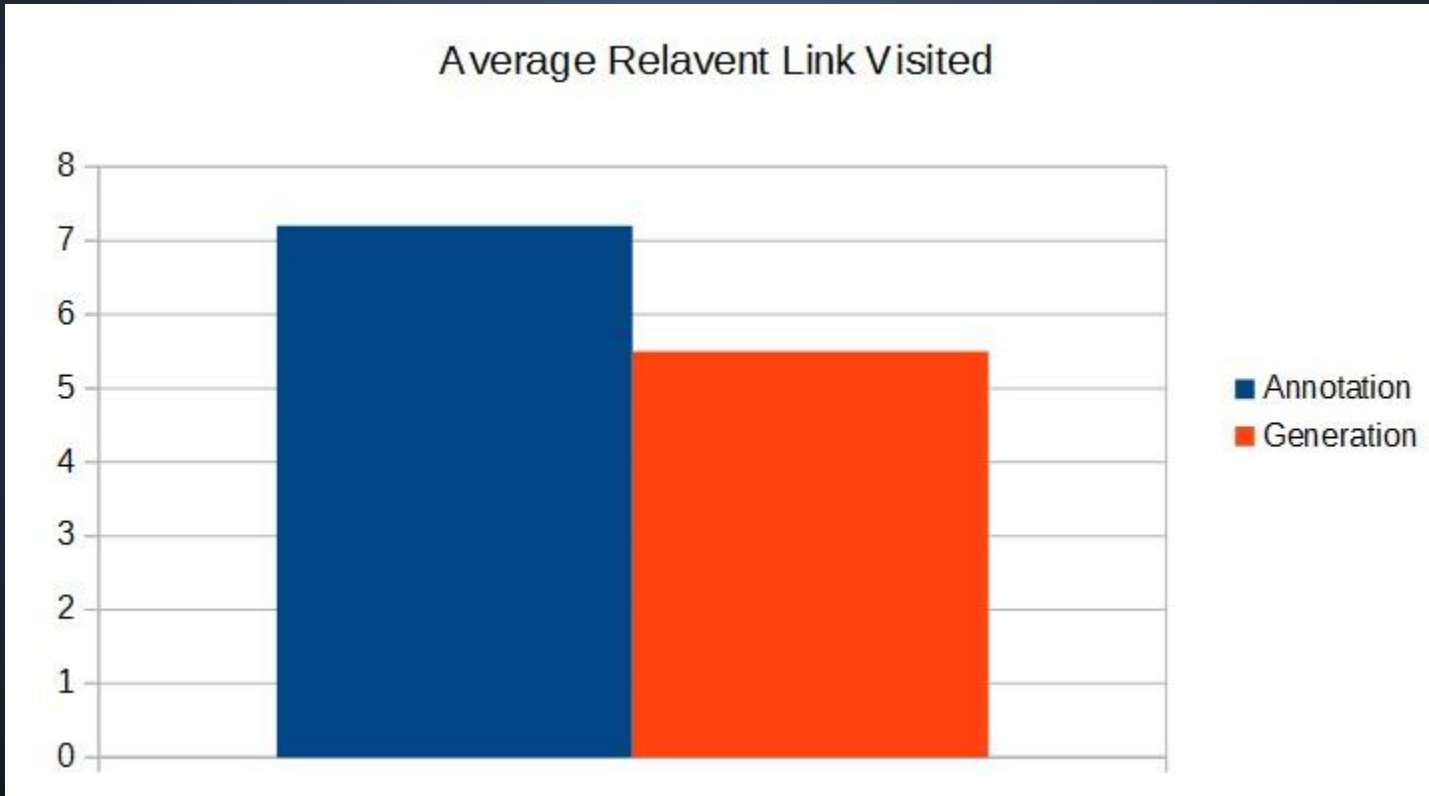
Performance - Time



Performance - Pages Visited



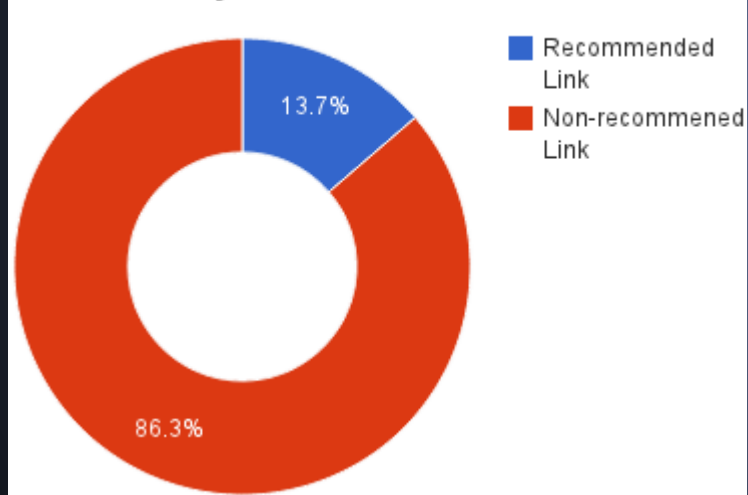
Performance - Relevant Pages



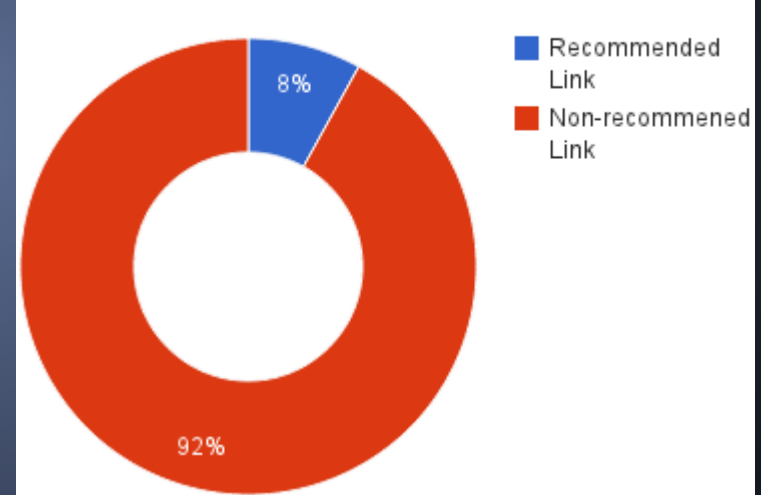
Percentage of Recommended Links

From the Link Generation Group:

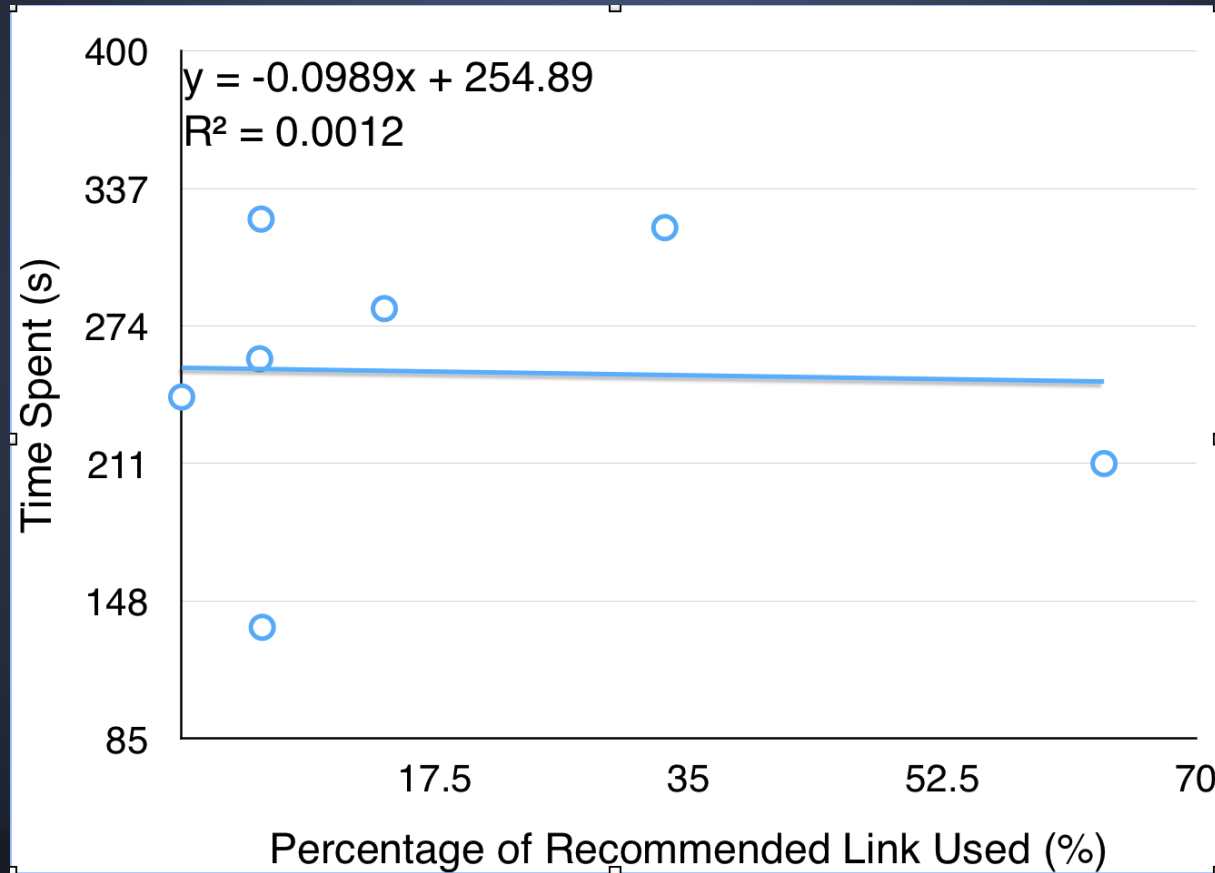
Users Actually Used Recommended Link



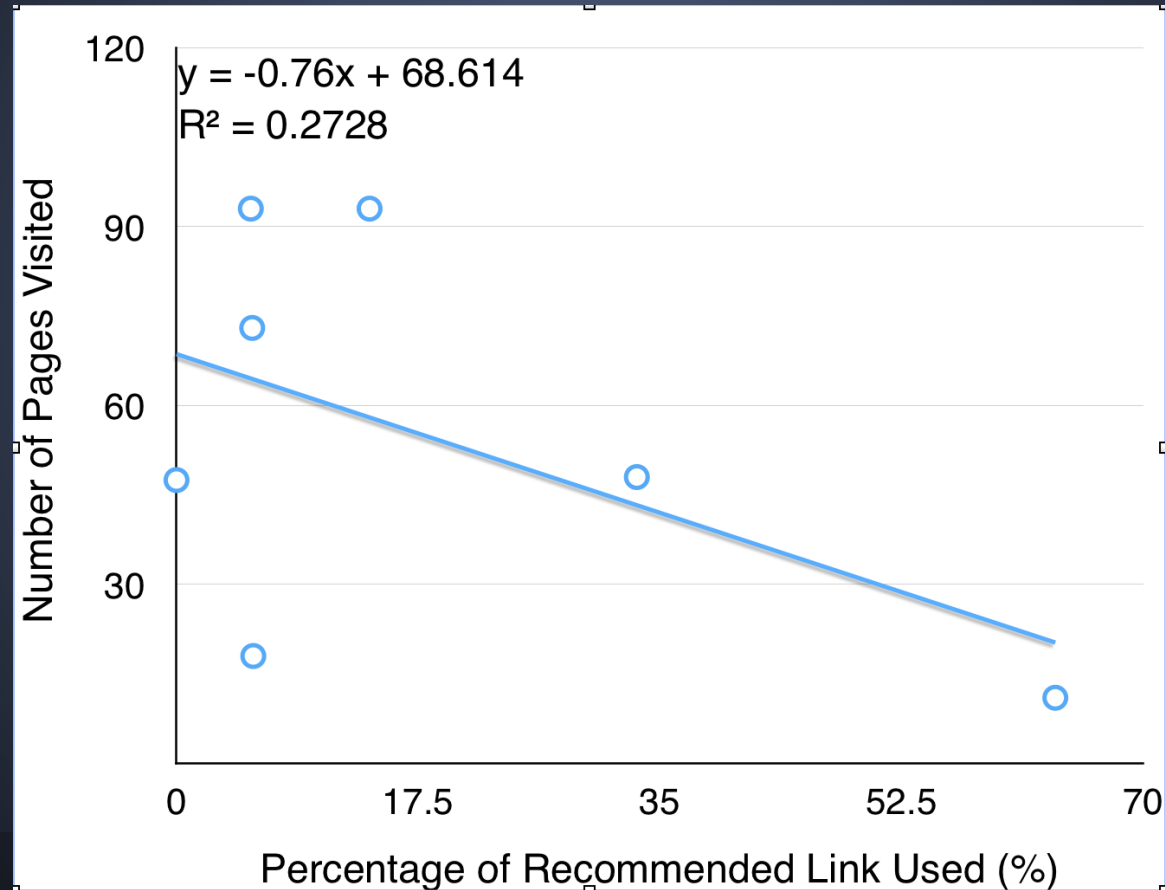
Overall



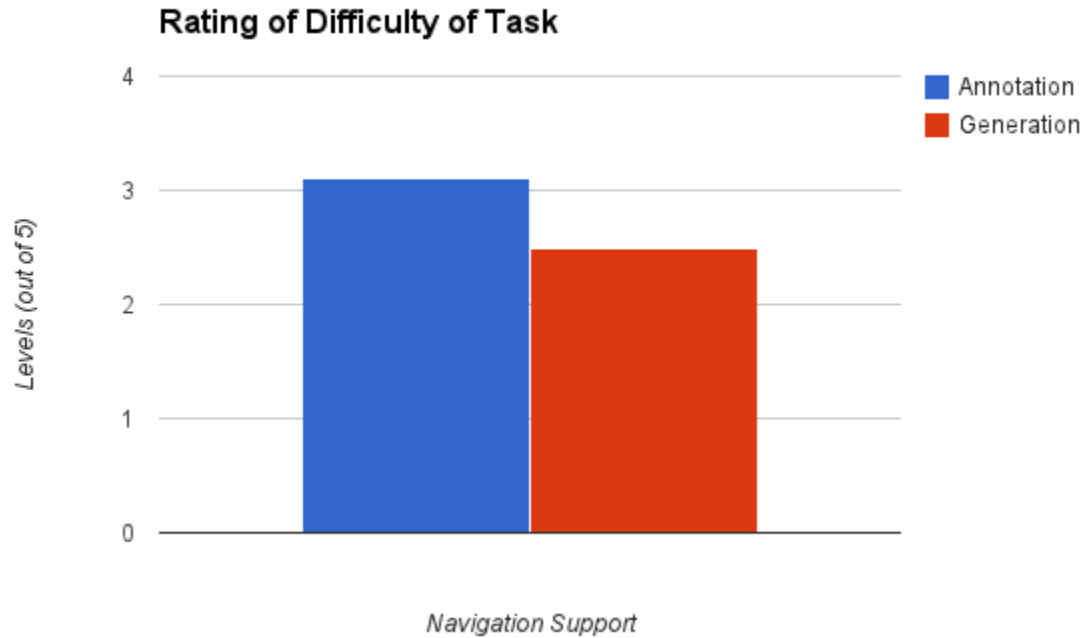
Study of Recommended Links I



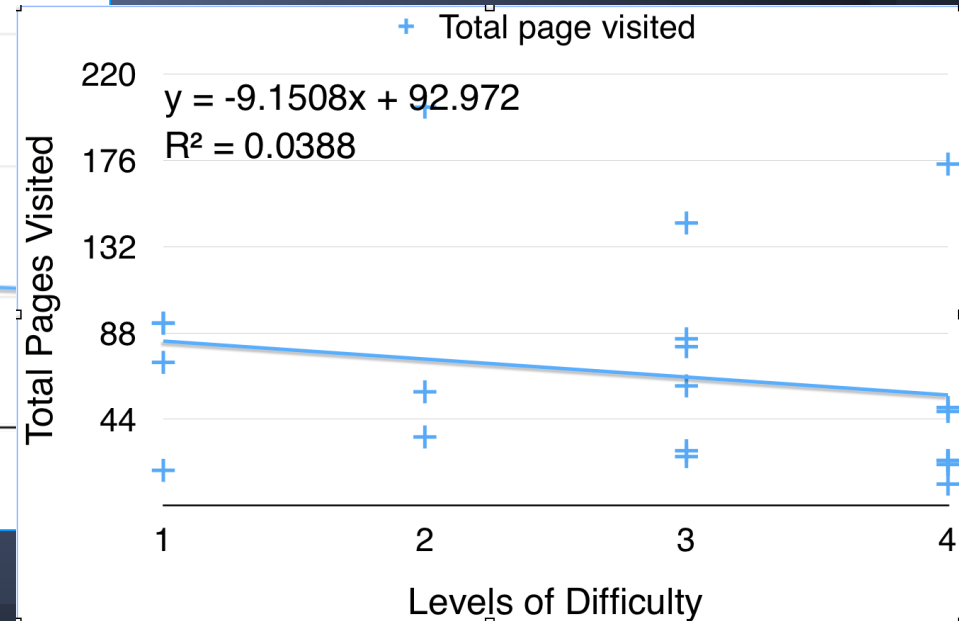
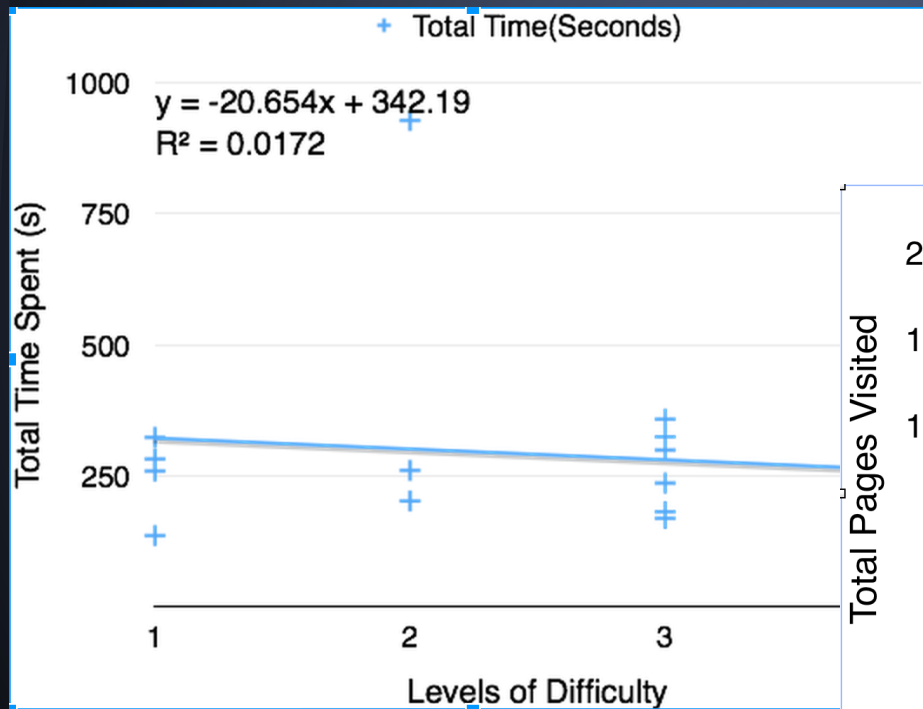
Study of Recommended Links II



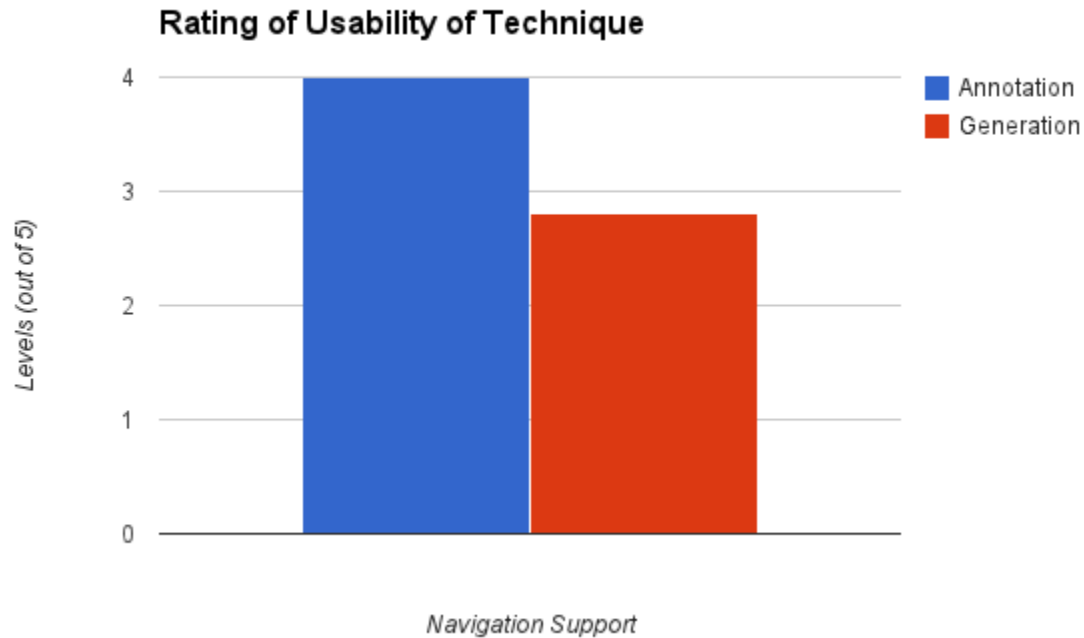
User Experience - Difficulty



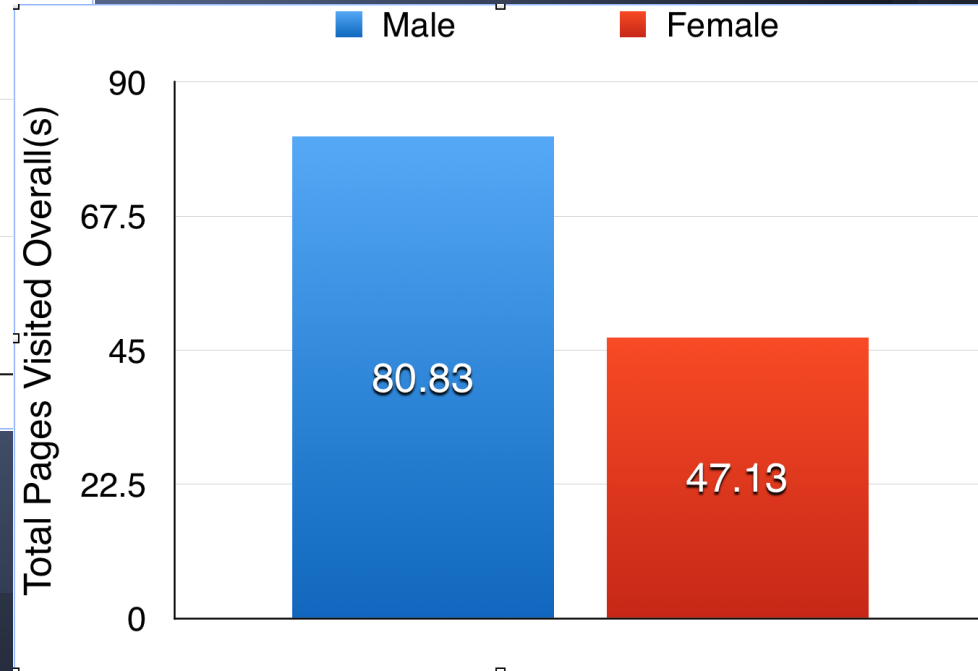
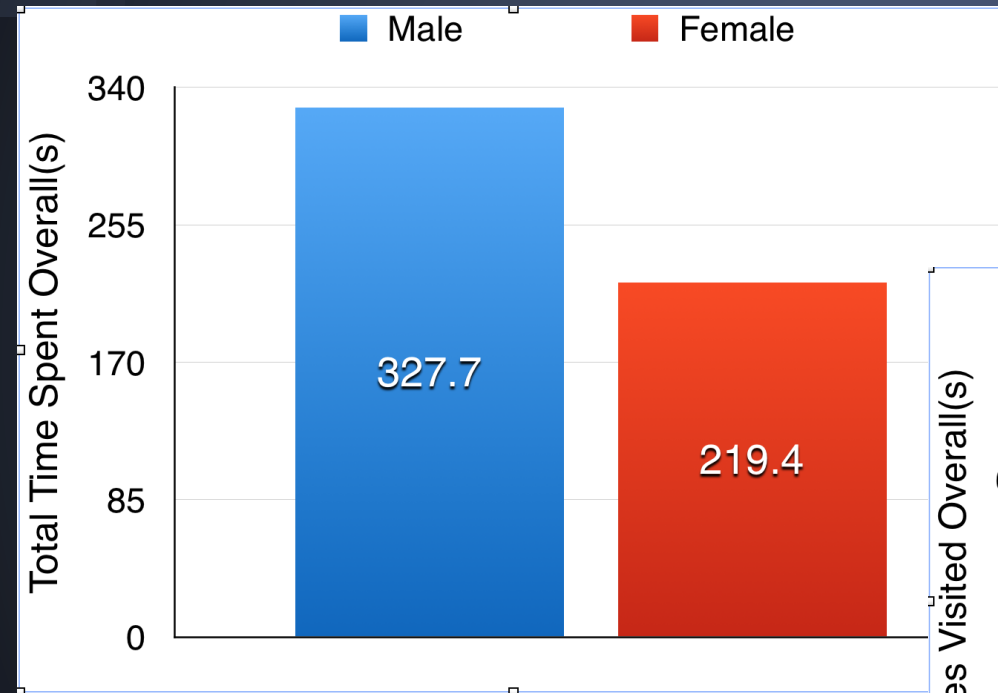
Performance: Difficulty Rating



User Experience - Usability



Gender Variance



User Experience - Comments

Link Annotation:

- “Could not easily differentiate between items which expanded and items which were just data”
- “Links should show that they have subdirectories regardless if they have been clicked”
- “It doesn't show how many subdirectories there are”

Link Generation:

- “Lack of visual comfort”
- “Inconsistent links”
- “wasn't clear enough”

Comments Continued

- “A search function would make it much better”
- “Please add an option to go back. I missed the correct answer and cannot go back”
- “Need an explicit navigation bar”

Future Work

- Scale of the Project
- Improvement of Visual Representation
- Adaptation Along with Browser Features

Conclusion

- Confusions
- Difference of Observation and Evaluation
- Impact of Internet

Reference

1. Paul De Bra. Pros and Cons of Adaptive Hypermedia in Web-based Education. Eindhoven University of Technology. *CyberPsychology & Behavior*. February 2000, 3(1): 71-77. Eindhoven University of Technology. DOI:10.1089/109493100316247.
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3. Peter Brusilovsky. 1997. Efficient techniques for adaptive hypermedia. *Intelligent Hypertext*. pp. 12-30. Springer Berlin Heidelberg.
4. Peter Brusilovsky. 2000. Adaptive Hypermedia: From Intelligent Tutoring Systems to Web-Based Education. *Intelligent Tutoring System: 5th International Conference, ITS 2000 Montréal, Canada, June 19-23, 2000 Proceedings*. pp.1-7. Vol. 1839. Springer Berlin Heidelberg. DOI:10.1007/3-540-45108-0_1
5. Peter Brusilovsky. 2004. Adaptive Navigation Support: From Adaptive Hypermedia to the Adaptive Web and Beyond. *PsychNology Journal*, 2(1), pp. 7-23.
6. Peter Brusilovsky. 2007. Adaptive Navigation Support. In: Brusilovsky, P., Kobsa, A., Nejdl, W. (eds.) *Adaptive Web 2007*. LNCS, vol. 4321, pp. 263-290. Springer, Heidelberg.
7. Peter Brusilovsky. 2003. Adaptive navigation support in educational hypermedia: the role of student knowledge level and the case for meta-adaption. *British Journal of Educational Technology*. vol.34. No.4. pp. 487-497.
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Questions ?