tldr

INTERFACES FOR LARGE-SCALE
ONLINE DISCUSSION SPACES

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MOTIVATION

proliferation of large-scale discussion spaces

Reddit

New York Times

Engadget

Huffington Post

facebook

xkcd forums

& many many more
ineffective interfaces for handling these discussions

**phpBB forums**
- 928 messages
- 40 messages per page
- 24 pages long
- Linear list - No threading, no conversation grouping

**New York Times**
- 446 messages
- 25 messages per page
- 18 pages long
- Editor’s selections, Oldest First, Newest First

**Huffington Post**
- 1220 messages
- 23 pages long
- Threading, Low-Level Moderation
ineffective interfaces for handling these discussions

about reddit

popular social news aggregator

5 million unique visitors per month

discussions usually range from few hundreds to thousands of comments
PROBLEM SUMMARY

lack of organization and coherence
RESULT: not comprehensible as distinct conversations

sheer amount of information causes information overload
RESULT: decreased participation, missed communication inputs

lack of cues that aid social interaction
RESULT: discursive commentary rather than conversations

too much / too little meta-information
RESULT: poor understanding of the discussion/participants
TLDR

- *(Internet Slang)* too long; didn’t read
- *(Internet Slang)* used to indicate a summary for those who don’t want to read the whole thing

APPLICATION FOR
NAVIGATING THROUGH
LARGE-SCALE DISCUSSIONS

- visual overviews
- non-linear browsing
- appropriate navigation cues
- thread summaries
- multi-dimensional filtering
DESIGN PROCESS

**user research**
surveying users of discussion spaces / in-depth interviews on usage

**data analysis**
what can the data tell us?

**concept generation**
user feedback / refine

**prototype implementation / testing**
implementation using adobe flex & flare
testing for usability and effectiveness
SURVEYING REDDIT

the survey

linked from the frontpage
- targeted userbase - **480 responses**

responses from all around the world

“live in the frozen north” “professor at Oxford” “currently posted in Iraq”
understanding user perception / behavior

activities while participating in discussion spaces

users are more inclined to respond to comment threads than start one
half of the users never moderate comments
almost everyone’s (92%) primary interest is in reading comments

(most respondents were regular, long-time users)
understanding user perception / behavior

cues that help them navigate through the discussion space
(in order of importance)

① one’s own perception after skimming the first few sentences
② position in the discussion space
③ moderation score
④ length of the comment
⑤ number of replies
⑥ comment author

majority of the users (60%) never use filters
WHAT CAN THE DATA TELL US?

temporal distribution

![Graph showing temporal distribution of data analysis, separating Positive Moderation (orange) and Negative Moderation (blue) across different hours.](image-url)
WHAT CAN THE DATA TELL US?

patterns within comment trees

lets the user compare activity across threads
- broad conversations
- deep conversations
- well-moderated conversations
- argumentative conversations
- specific messages of interest
WHAT CAN THE DATA TELL US?

making these patterns more conspicuous
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structures and patterns within threads

Credit: Martin Wattenberg
WHAT CAN THE DATA TELL US?

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structures and patterns within threads

lets the user compare length, activity & moderation
- within threads
- across threads
the demo!
semi-structured protocol with two parts

part 1:
estate exploration of the application features / think-aloud protocol
understanding of the learnability of the interface

part 2:
scenario-based tasks
  e.g. : navigating to the best messages in a thread, filtering down to the ‘funny’ posts
understanding user’s ability to perform specific tasks

first round
6 participants / 30 - 60 minutes per session
WHAT THE USERS ARE SAYING

“Awesome!”
“Useful for both in-depth reading and a quick overview of activity”
“Cooool” “Beautiful visual representations”
“Very useful, could definitely see it being deployed”
“Most meaningful visualizations I’ve seen (for discussion spaces)”

APPLICATION RATING (from the exit survey):

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usefulness</td>
<td>4.5</td>
</tr>
<tr>
<td>Ease-of-use</td>
<td>4.0</td>
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<tr>
<td>Potential Impact</td>
<td>4.17</td>
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<tr>
<td>Aesthetic Appeal</td>
<td>4.67</td>
</tr>
<tr>
<td>Interest in Using</td>
<td>4.17</td>
</tr>
</tbody>
</table>
**FUTURE PLANS**

**deploy on a larger scale**
- test ideas with a more general userbase on the web
- direction based on feedback from this phase

**potential customer types**

- social news aggregators
  - Slashdot
  - Reddit
  - Digg

- popular topical blogs
  - Engadget
  - The Huffington Post

- major newspaper websites
  - The New York Times
  - The Washington Post

- social networking sites
  - Orkut
  - Facebook

- corporate support forums
  - Apple
  - Dell

- general discussion forums
  - phpBB
  - vBulletin
thank you!