Designing Environments for Brainstorming

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Brainstorming

• Collaborative process for “generating, collecting and filtering ideas”

— Why synchronous?
Early Phase Design

- Early phase design challenges

  - Goals/Problem not clearly defined
  - Lots of ideas are generated
  - Bias problem/Difficult for one mediator to process

What we need is to somehow collect thought externalization and share with others even with oneself.
Virtual Environments

- Single online workspace.
- Text chat, voice chat, uploads, sketches.
- Associations (aka. relations).

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Virtual Environments

- Conferences, streaming.
- Documents for review.
- Multiple sessions.
- Versioning.
Virtual Environments

- Feature rich applications
- No formal process to identify and share/discuss information
- Information generated during a synchronous session is somehow locked away in bad XML.
Whiteboard conference - skype

- Real-time interactive whiteboard for multiple users
- Voice and video
- Synchronization + offline
- Save and load work

TalkAndWrite powered by skype
Wiki’s

- Incubator phase – seeding
- Idea/opinion polling - evolutionary growth
- Moderation - reseeding
Brain Dump!
BrainDump is a new way to store and manage your information. Just drop your content here and we will take care of organizing it for you. No more creating messy folders to store files and trying to figure out where they are or finding search terms for them. Discover documents, images, and sounds similar to yours, make short notes and tag your content, upload documents and find related concepts, identify images and music like your own. Best of all it’s free as in free beer!

BrainDump is very very Beta! its currently only supports documents and notes. It recently started as a course project but the developers (one_distracted_grad_student) are working on adding more functionality. Here is some information on the project architecture:

- MVC framework: Pylons
- Database: Mysql
- Templating: Mako
- Request Dispatching: Routes

Features

- notes - tag little snippets of information and retrieve them easily.
- documents - upload documents, view them online and find related concepts from your collection.
- TODO: support images and audio.
Features

• notes - tag little snippets of information and retrieve them easily.
• documents - upload documents, view them online and find related concepts from your collection.
• TODO: support images and audio.
Concept/Tag Cloud

Tags

biography c++ cookbook email french html php python regex regular-expressions sed shakespeare smtplib test-post xml
TODO Features: Semantic Search
Online Brainstorming via Rapid Drafting

Look for:
• Idea Generation and Reduction
• Threads of Posts ("streams of conversation")
• Shared Resources ("observation")
• Rapid Drafting ("sketches")
• Annotating Sketches ("annotation")
• Use of Color ("track contribution")
• Quick Feedback
• Presence of a Moderator ("admin")
First Case Study

L3D redesign
Sketch a redesign of the L3D space. Use the sketch utility.

10:14 AM - admin - 0 comments - email it - reply

0 Comments

• Brainstorm 1 (generation): users sketch on an idea.
• Interface allows user to sketch and write text **rapidly**.
L3D redesign
Sketch a redesign of the L3D space. Use the sketch utility.

10:14 AM - admin - 1 comments - email it - reply

1 Comments

clear sight lines
My emphasis was on clear sight lines, I wanted to be able to walk from door to door without major impediments.

6:50 PM - mike - reply

• Note thread comments allow **logging** and **discussion**.
Another Case Study

Pick a visualization
Choose one of these visualizations that you like and mention why you like it.

0 Comments

• Brainstorm 2 (reduction): admin shares two ideas with users.
User “chris” chose one of the images and annotated it.

1 Comments

**Zoomed out version**
I like the zoomed out version better because you can see the perspective.
Like Post Its, there is **color tracking** (title color).

the other one
I prefer the other one because you can actually see what's going on.
Online Brainstorming via Rapid Drafting

Recap:
- Idea Generation and Reduction
- Threads of Posts (“streams of conversation”)
- Shared Resources (“observation”)
- Rapid Drafting (“sketches”)
- Annotating Sketches (“annotation”)
- Use of Color (“track contribution”)
- Quick Feedback
- Presence of a Moderator (“admin”)

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# Database Design: Logical View

<table>
<thead>
<tr>
<th>Tables</th>
<th>Fields</th>
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<tbody>
<tr>
<td><strong>Users</strong></td>
<td>user_id, alias, first name, last name, email, password, registration_date</td>
</tr>
<tr>
<td><strong>Groups</strong></td>
<td>group_id, group_name, description, start_date</td>
</tr>
<tr>
<td><strong>joins</strong></td>
<td>user_id, group_id, join_date</td>
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<tr>
<td><strong>chat_sessions</strong></td>
<td>chat_id, group_id, user_id, start_time, end_time</td>
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<tr>
<td><strong>chat_messages</strong></td>
<td>message_id, user_id, posted, message</td>
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<tr>
<td><strong>Files</strong></td>
<td>file_id, file_name, type</td>
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<tr>
<td><strong>Workon</strong></td>
<td>user_id, file_id, create_date, modify_date, access_date</td>
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<tr>
<td><strong>Text</strong></td>
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<tr>
<td><strong>Media</strong></td>
<td></td>
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<tr>
<td><strong>Drawing</strong></td>
<td></td>
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</table>
BRAINSTORMING BOARD

This website is for people to join one or more hobby group(s) and chat online.

Current Features

You could:
- register to the website
- start a new hobby group
- join a current group and chat with people online

Future Features

As a member, you will be able to:
- use sketches to express your ideas
- share image, audio/video with your friends

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Spring 2007, Designed by Yingdan Hsiang, University of Colorado at Boulder

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### Registered Users

There are currently 10 registered users.

<table>
<thead>
<tr>
<th>Edit</th>
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<th>First Name</th>
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<td>Huang</td>
<td>Kaiming</td>
<td>April 29, 2007</td>
</tr>
</tbody>
</table>

1 2 Next
Tiny Chat & Tiny Recorder

Chatting Records

2007-05-09 08:19:09 - How is everything going? (Shark)
2007-05-09 08:18:05 - hello, this is Shark speaking (Shark)

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Demo Time