

Personal Informatics Tool

design for memory

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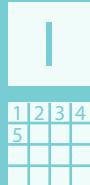
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Personal Informatics (PI) tools are working on helping people deal with their daily issue, having a better understanding about themselves and making life and working easier. Most of the PI tools are practical, which means they have specific goals within the design[1]. Users have a clear need when they choose a specific PI tool, for example helping them with time management, tracking their body data to obtain a clear view of the health situation, gaining information to help establish healthy eating habits, etc. Meanwhile, people also have varied comments about these tools. How to improve the current design? How to dig out people's real needs through these comments and design research? And how to make personal informatics tools simple but efficient?

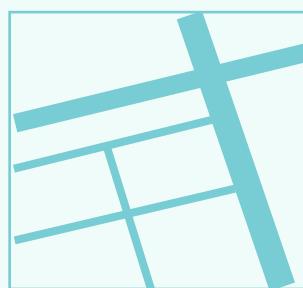
In this workbook, the topic is around design for memory. I choose two issues about memory: how to remember map and how to remember stuff (physical objects and to-do list).



The first survey is about how people remember the map and tell the directions. There are totally 11 respondents, 2 of which became the further subjects for interviews one. The result presents people's memory situations about maps, what kind of tools they use to help with maps, and how they use the tools. 91% of the respondents use Google Maps in their daily life and also they rated Google Maps high because of its accuracy and reliability.



... ...



For the following two interviews, the subjects are two people who have good memory of maps. I asked them what clues they use to remember the maps and tell directions, and we also talked about their opinions about Google Maps, GPS and other mobile applications for maps, which gives me many inspirations for design concepts.

“What tools do you usually use?”

“Google Maps, Mapquest and GPS...”



“Street names, sun, and buildings’ names...”

I also carried out an observation of these subjects respectively on how they use Google Maps. Typing in/copying and pasting the address, searching, checking the route and following it is the process. They usually use this app to check the map, direction or what is around them.

“ How do you use
Google Map?
”



I composed a structured interview about how to remember stuff and did it twice by email and face to face respectively. During the face to face interview I also asked the subject to tell me a whole story about how she lost something and how she tried to recall where it was and finally found it. At last I asked them to talk about their needs on tools to help them to remember stuff. Both of them mentioned they need a simple but powerful tool.



After these interviews, I begun to collect comments from iTunes for some productivity PI tools, which includes iPhone Maps, Mapquest, reQall and Shopping (page 6-7). I found not only the suggestions on how to improve the current design but also some clues showing people's real and deep needs.





1 MAPS

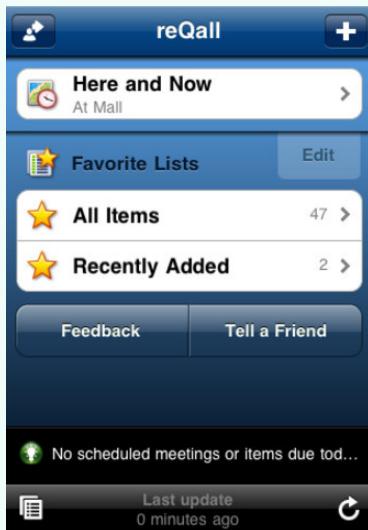


Maps is a built-in-app for iPhone, people can see a list of turn-by-turn directions. Or follow a highlighted map route and track with GPS. People can see how to get there if they're walking, driving, or taking public transit. Maps can also show what time the next train or bus leaves. [2]



2 MapQuest

MapQuest is a mapping instruction application. People can view the information of restaurants, shops, roads, etc. around them. MapQuest also has voice instruction, which can give people voice direction. [3]



3 reQall

reQall is a memo application, which allows users to do voice memo and create to-do list according to the current location.



4 Shopping

Shopping To-Do is a gadget accessory for iPhone which will assist users in shopping every day.



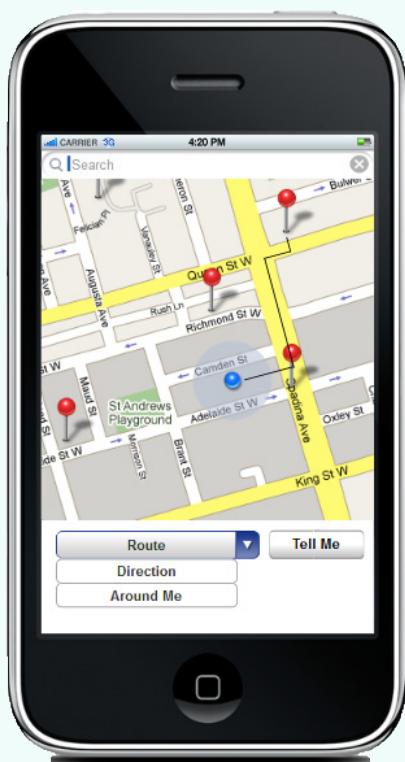
“ I usually use the street’s name, buildings’ names to help me distinguish whether I’m in the right place. ”

“ I will refer to the building’s name to tell. ”

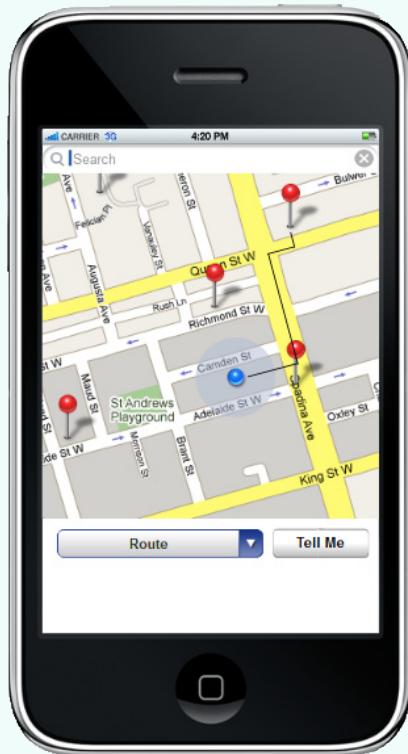
“ I prefer using voice guiding when driving, which is safer. ”

Insights

- ✓ People always use clues from the environment to tell whether they are in the right place.
- ✓ Voice guiding could be a more convenient and safer choice when people can’t always be focused on the screen.



Tell my way is a voice guiding mapping tool. There are three modes users can choose to listen to: route, direction and around me. Route means the application will tell the users how to get to a place in detail, they can drive or walk without looking at the screen and follow the instructions. Directions means tell the users their current direction like N, S, W or E. Around me means the application can sense the buildings around the users and tell the names.



The way how to switch among these three modes is directly clicking the button or shaking the phone. Shaking twice means switch among modes and shaking once means skipping the current building and listening to the next building's name (in "around me" mode).

- “ When I focus on them I feel even more lost.”
- “ Hope a 3D map on mobile application, but it may run battery so fast.”
- “ I look up both the tool and the environment to see where I am.”
- “ (GPS)I can't see the screen and road at the same time, it's dangerous.”

Insights

- ✓ People need to combine the map and the real environment to find the way.
- ✓ Separate maps from the real environment can cause both inconvenience and danger.



Mapping membrane is an independent membrane which can be stuck to any flat and transparent screen like glasses, sunglasses, windscreens, etc. The map membrane is connected to users' Google maps and can download the latest map onto the membrane. In this augmented reality way, people can see the map and the real environment at the same time and won't feel lost.



When wearing glasses which has this membrane on it, people can see the instruction in front of them, for example they will see a lighted arrow on the crossroad in front of them if they need to turn[6]. When this membrane is applied in car, it will also be safer.

“ I need a really simple thing (to help me to remember what to do). ”

“ Sometimes the time is too short for me to write down the memos, so I will forget afterwards. ”

“ I haven’t pinned down exactly when it happens, but I am this close to moving to a different, if less feature-rich, to-do list app. ”

Insights

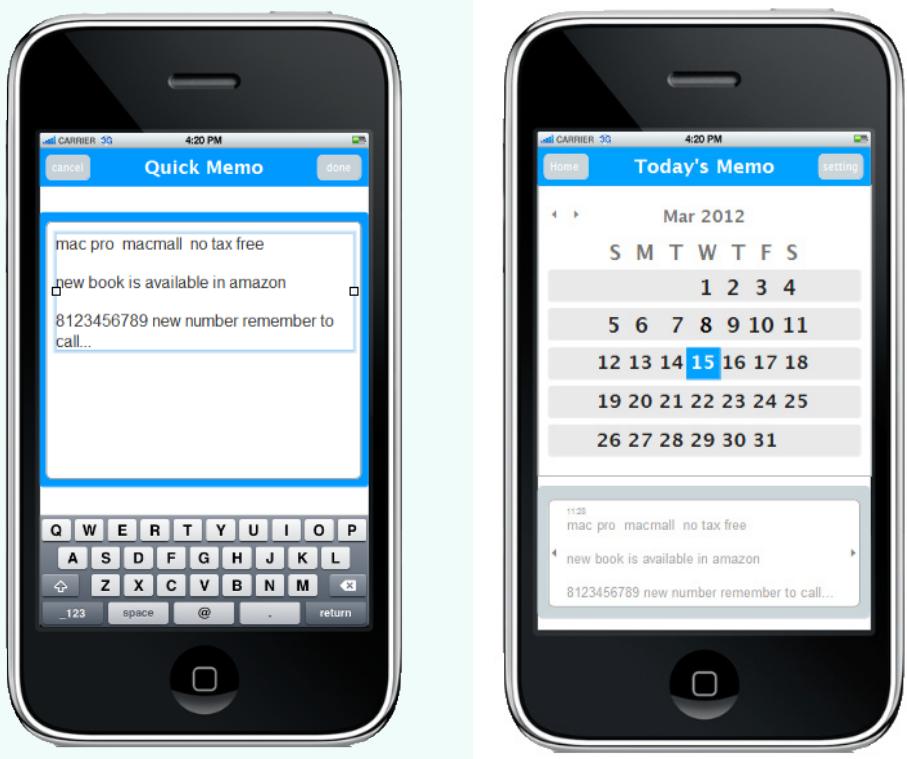
- ✓ Sometimes the time doesn’t allow people to write down memos in detail.
- ✓ The current calendar app on iPhone has at least five steps to add a new item.

C3

Quick Memo



Quick Memo is a calendar application which can allow users to write down the memos in a shortest time. Users only need to write down the time, place and notes then shake the phone to add a new item to calendar automatically.



Or if the users don't write down the time, the new memo will be added to a default time defined by the users (eg. 23:00 everyday), so users can organize their memos afterwards when the app gives out an alarm.



C4

Research Evidence

During the observation, the subject copied an address in his calendar event, pasted it in iPhone maps, searched for it and knew how to get there.

“ I will search before starting off, but if I search for another place afterwards the prior information will miss. ”

Insights

- ✓ The interaction with the specific address will happen twice if the user doesn't know where an event will happen.
- ✓ There isn't a direct way to remember where an event will happen and how to get there.

C4

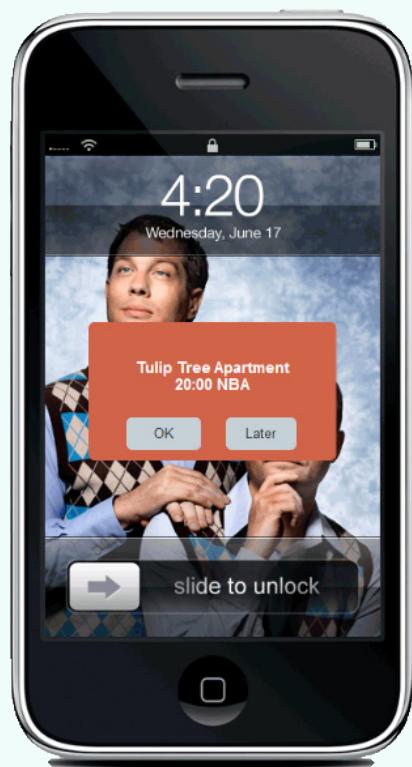
Do it Here



Do it here is a mapping memo application. The way the memos are remembered is not in lists but on a map. Users will see clearly their events' places on the map.



When they want to add a new item, they can search for the address first, click the bubble and add the time and notes. If the event doesn't have a specific place, users can add a memo in regular way.



Users can also choose to let the app remind them according to the place, if they arrive at a place, the calendar may send an alarm about the to-do list which will happen in this place.

“ No way to email the list.”

“ If you can’t share the list it is not a “pro” program.”

“ A friend called me to do something, but after the call I totally forgot about it.”

Insights

- ✓ There may be multiple participants in one event.
- ✓ People phone call, email or message the others to remind them to do something, which is not that efficient.



To tell list is a calendar share application, which can allow the other users to add a new item for one user.



People can make their calendar public to some “friends” on the application and also they can decide which days and times are the “no disturb” time. Their “friends” can edit an item for them and send to them, which will become an event in their calendar and remind them on a specific time.

“ I need a really simple thing (to help me to remember

what to do). ”

“ I like writing down in my notebook but mobile could

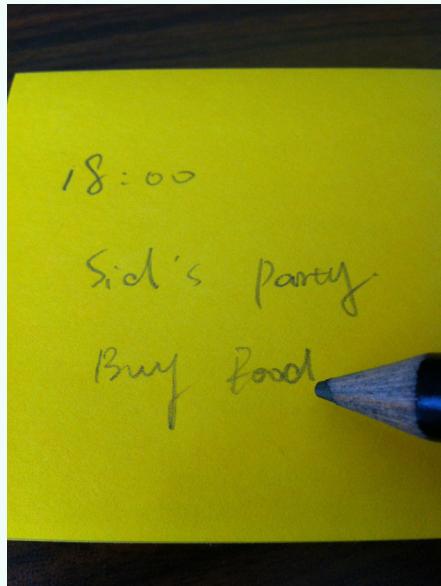
be more convenient because it can send me the alert. ”

“ Using post-note is not that sustainable. ”

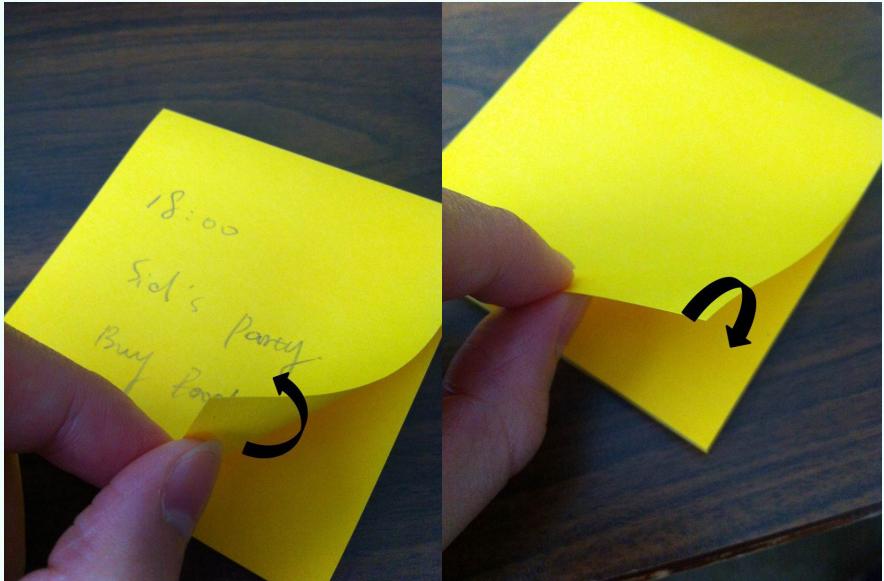
Insights

✓ Notebook and pen are the natural tools people use to write down memos.

✓ Simple function is not only the reason why people choose paper and pen but also the reason why they abandon them.



Post-note reminder is a design which combines the characteristics of post-note and calendar. Users can write down their memos just in regular way by pen and post-note.



When they “tear off”, the contents will be sent to their calendar automatically. The material of the post-note can't be teared off so afterwards the paper become a clean one. It's sustainable and reusable.



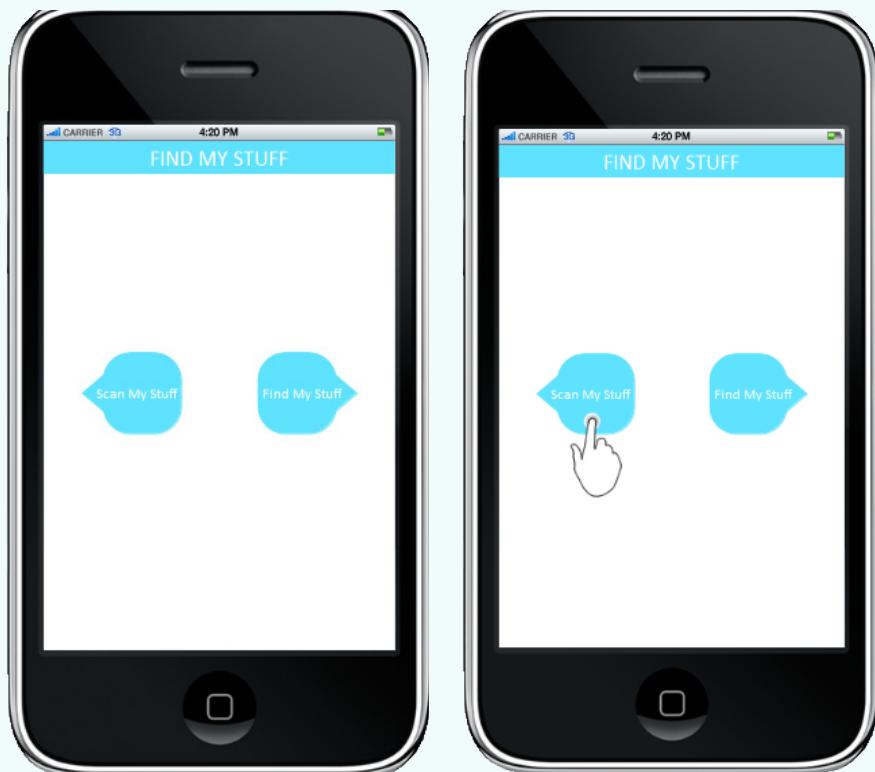
Calendar will give out the alert according to what the user has written down.

“ I will refer to the common places (to find the missing stuff). ”

“ I always lose very small objects, they are so hard to look for, and they are always found in corners in my house after a long time.. ”

Insights

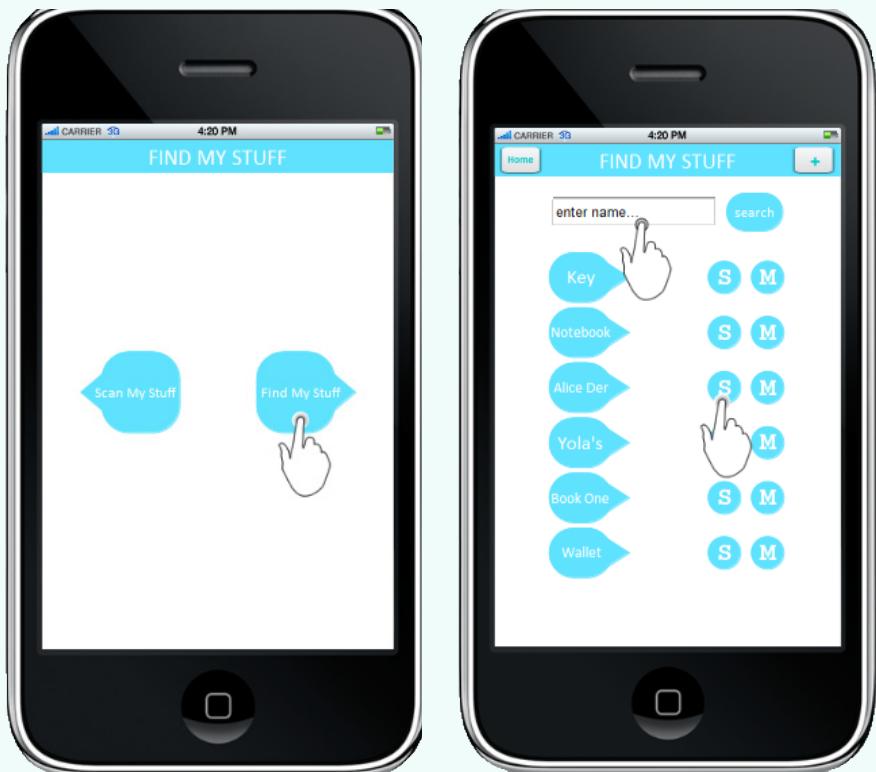
- ✓ People may lose their stuff in some corners which are hard to see and search into.
- ✓ People need tools which can help them to search around them.



Find my stuff is a mobile application which can help people to store the information of daily stuff and search the missing one by scanning corners.



Users can add an item by scanning the stuff first and give it a name.



When they can't find it, they can choose from the item list and use iPhone as a normal flashlight.

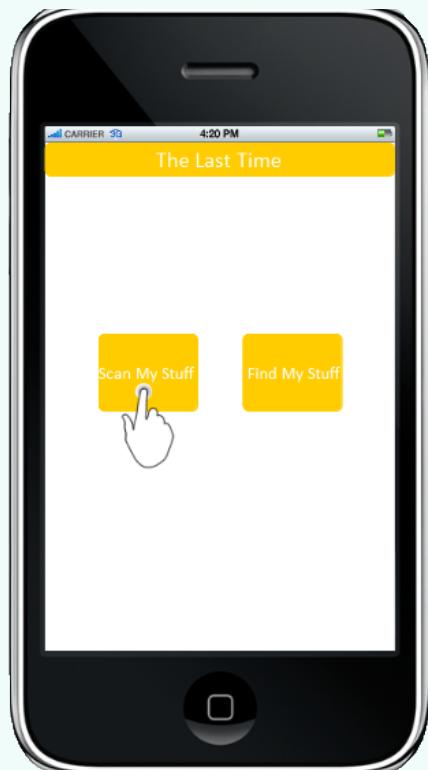


The application will scan the corners and if it senses the item it will sound or vibrate. Users can also view the maps where a specific stuff has been found before and go to the common places to find it.

“ I will recall the last time I used it and what I did at that time and go to find it.”
“ I always lose something when I don’t sense at all.”

Insights

- ✓ People may lose something they don't know when it happens and where it happens.
- ✓ Find my iPhone is a strong tool to help people if they lose their iPhone.



The last time is a mobile application, which can store the information about when something is with the iPhone and keep record of it.



Users can add an item by scanning the stuff first and give it a name.



When they can't find it, they can choose from the item list to see the timeline and map when iPhone and the stuff is together. This can help people obtain the clue where they may lose their stuff and go to search it. People can change the settings to decide how often it create a record.

“ I add a flag before the email and try to keep in mind that I should reply this one later, but I always forget about it totally. ”

“ I may need a simple design like I can drag my email to somewhere and later I can see them and reply them. ”

Insights

- ✓ Only when people open the email or when they organize their inbox they have the chance to see some to-deal with emails.
- ✓ Plug-ins can be installed in browsers to satisfy users' varied needs.

C9

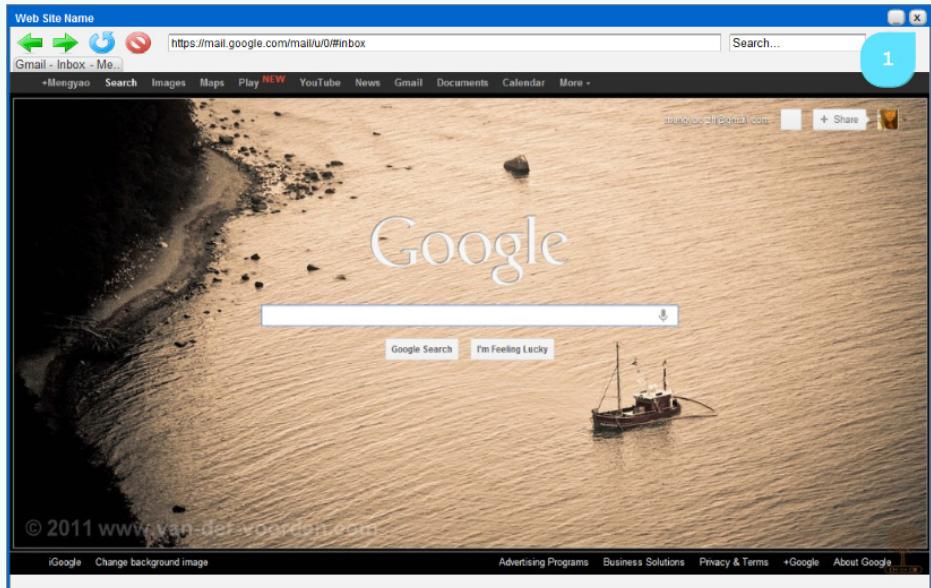
Email Notifier



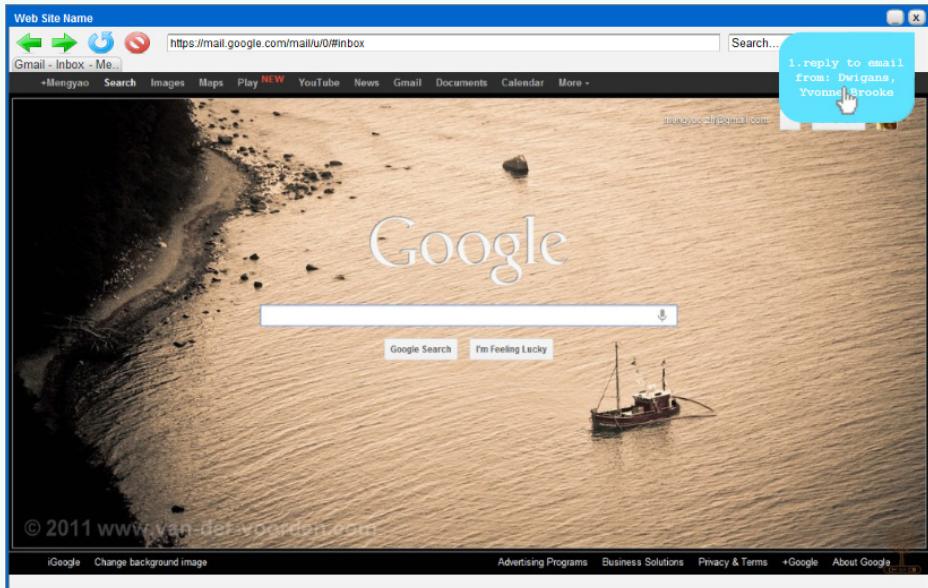
The screenshot shows a Gmail inbox with 21 emails. A large black diagonal line is drawn across the entire interface, from the top-left corner to the bottom-right corner. The inbox list includes emails from various senders like 'me', 'Dagmar, Yvonne Brooke', 'ZAGG Inc', 'ryanlefkoff', 'Ryan Lefkoff', 'Blevis, Eli B.', 'Marty, me (2)', 'newtoiu (2)', 'luo minqi', 'Cheryl, Marty, me (8)', 'Marty, me (2)', and 'Adriana Resiani'. The right sidebar shows a 'Chat' section with a list of people and their status.

From	Subject	Date
(no subject)	- Hi Holly, things are going well, thanks! I'm not sure whether we	Mar 27
Dagmar, Yvonne Brooke	University Graduate School Award/Fellowship Application - Thanks for your in	9/13/11
ZAGG Inc	Tour+Website ZAGG Order Confirmation - Order Confirmation #: IC4157074	9/10/11
ryanlefkoff	Univ.IUBHICD HCID Connect 2012 (mengyao.zh@gmail.com) - I've shared	9/7/11
Ryan Lefkoff	Univ.IUBHICD HCID Connect Planning Meeting - You are receiving this	8/30/11
Blevis, Eli B.	2011/2012 HCID Master of Science Program Handbook - De	8/22/11
Marty, me (2)	Preparation Supplies for your IDP class - Forwarded message From: Marty	8/17/11
newtoiu (2)	Preparation Before Orientation! - Dear Mengyao Zhao Your orientation progr	8/13/11
luo minqi	Preparation Fw: 012376030X Designing with the Mind in Mind (2010) (ATTIC	8/4/11
Cheryl, Marty, me (8)	Preparation Univ.IUBHICD Welcome MS HCI Design Students Fall 2011 - Dea	7/23/11
Marty, me (2)	Univ.IUBHICD Books and supplies for HCID Fall 2011 - Forwarded messa	7/22/11
Adriana Resiani	After Admission Univ.Toronto Link to Meet and Greet event - Hi everybody,	7/22/11

Email notifier is a browser plug-in. People can drag their to-deal with emails to the icon on the top corner of the browser.



Whenever they open the browser, the number of emails haven't been dealt with will appear in a big and bright bubble on the top corner of the browser.



People can click the bubble and click onto the email, which will directly lead them to the reply page.

“ Every time we have meeting and write something on the whiteboard, it's hard for me to keep a full record, because there are so many details there.”

“ People will erase the contents quickly before I write them down.”

“ We will take a photo of the whiteboard and share with our teammates.”

Insights

- ✓ Sharing meeting notes is somewhat troublesome for a group.
- ✓ Taking photos of the whiteboard is a good way to keep the original content.

0215 Agenda 1hour20min

share research results 20min
brainstorm concepts 30min
discuss and vote 20min
homework 10min

Fish 6
History 3
Music 3
Weather 2
Intuitive blabla 0
Interactive blabla 6



Whiteboard recorder is a simple plug-in design on current white-board.

0215 Agenda 1hour20min

share research results 20min
brainstorm concepts 30min
discuss and vote 20min
homework 10min

Fish 6
History 3
Music 3
Weather 2
Intuitive blabla 0
Interactive blabbla 6



Users can login before they want to save their notes into their own account.

Fish	6
History	3
Music	3
Weather	2
Intuitive blabla	0
Interactive blablabla	6



They can choose a screenshot of the whiteboard or just extract the contents.

~~Weather~~ 2

~~Intuitive blabla~~ 0

~~Interactive blablablo~~ 6

Yolanda



After that they can find the screenshots or records in their account on Internet .

Reference

- [1] <http://personalinformatics.org/tools>
- [2] <http://www.apple.com/iphone/built-in-apps/maps-compass.html>
- [3] <http://itunes.apple.com/us/app/mapquest-vibe/id477265730?mt=8>
- [4] <http://itunes.apple.com/us/app/reqlall/id284930649?mt=8>
- [5] <http://itunes.apple.com/us/app/shopping-to-do-pro-grocery/id435468009?mt=8>
- [6] <http://stevenmcphotography.blogspot.com/>

