Understanding problems
Keep track of your ideas, they might be quite useful later.
Memos

• Approach to recording thoughts and ideas that occur while learning about a new topic.
• Write a memo to yourself about the idea when you have it
• Pros
  • Good for not losing ideas
  • Good way to think about a problem as you learn about it
  • Useful when analyzing qualitative (unstructured language) type data
• Cons
  • Can take a long time to read through all the memos
  • Not good for precise evaluation, better for idea generation and thinking
Note taking

- Memos are a bit different than standard lecture notes
- Notes are about writing down facts so you can remember them later
- Memos are about writing down thoughts and ideas so that you can consider them again later
Software update study memo examples

- Q1: What does the experience of installing updates look like for “normal” users?
- Q2: What cause people to delay or avoid updates?
- Study: Online survey were we asked people to tell us about a recent software update experience.
“My wife installed an update recently which added the Ask Toolbar to her browser. I had to uninstall it and run a virus check to make sure her computer was clean.”

May 29 12:03 am
3rd party software
Wondering about what 3rd party software such as the "Ask Toolbar" that is automatically selected for install, is called.

May 29 4pm
Answer: Potentially Unwanted Software. Which is not a “virus”.
More complex stories and thoughts

“My iPhone periodically requests that I install their latest update. The last update that I did, I first had to delete half of the apps on my phone and also upload my pictures to my computer and delete them off of my phone because I didn't have enough usage to install the update. Once I was finished deleting apps and pictures, I installed the update and it took about 5 minutes. I honestly have no idea what this update did for me because everything seemed the same after.”

May 31st 8:31PM
Not useful and No change
There are a set of comments talking about how after the update there was no visible change. P36 talks about how updates use more space on his phone then the update "doesn't really do anything". Similarly P34 says that she was "especially frustrated because the update was completely useless to me." Other users are confused about why the update even needed to happen. P26 talked about deleting pictures to make space for an update then commented: "I honestly have no idea what this update did for me because everything seemed the same after."

There seems to be a link between software not changing and seeming useless to users. I wonder how these opinions correlate with security comments.
An Uber ride in Manhattan, NY

May 31st 4:00pm
Uber driver opinion

During the Uber ride to the airport I asked the driver what recent update experiences he had had. He commented that updates take time and that each piece of software wants to update. He needs to use his computer and have it be there when he needs it. Even if the updates only take "a minute, this is New York, a minute is far too much."

There is something interesting here in the combination of how people say they want control and therefore turn off background updating and the way people say they are overwhelmed and interrupted by the update requests. Even the Uber driver when I mentioned updates said that he turns all of those off. Several participants thus far have commented on turning off updates. P12 even blamed themselves for their lost data due to their failure to disable the automatic updates (he wanted to be notified).
Turning memos into higher-level ideas.
Thematic analysis (easy version)

- The goal is to create groups or “themes” based on data
- Ground-up data analysis
- Start by putting all the data somewhere it can easily be moved around
- Read each piece of data and ask yourself: “is this similar to anything else I have seen”, if so, move it next to the other similar data
Thematic analysis (easy version)

- **After** all group members have read all the data and people have stopped moving data around:
  - Start talking about what different clusters mean
  - Start adding labels to the clusters, maybe even some sub-clusters too
  - Talk about how the clusters relate
  - Identify a couple of high-level concepts or “themes” that you found in the data
Thematic analysis (easy version)

After all group members have read all the data and people have stopped moving data around:

- Start talking about what different clusters mean
- Start adding labels to the clusters, maybe even some sub-clusters too
- Talk about how the clusters relate
- Identify a couple of high-level concepts or “themes” that you found in the data
Take notes right after

• Immediately after doing a thematic:
  1. Take photos (they can look awesome)
  2. As a group agree on the major themes and have someone take notes about what they are
  3. Write up the main outcomes before you forget
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HCI: Memos

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