

HCI 4/14

Reagan Shirk

April 14, 2020

Icons and Semiotics

- Icon design is hard, some people specialize in it
- Lots of time spent trying to correctly share his slides
 - I wondered how many times he was going to flex about his multimonitor set up, it was about 5 times
- What do these icons mean?
 - A tophat with a purple thing coming in/going out of it
 - An upside-down u shape with two blue boxes on the ends and a green box at the apex
 - A chalkboard and piece of chalk that has 4 + 2 written on it
 - For each of these icons, we need to think about:
 - * What do we think it means?
 - * What do we think it would do if it were a button?
 - * Is the icons purpose apparent?
 - * Is it familiar or memorable to intended users?
 - * Can it be learned and remembered without textual hints?
 - There's been a lot of discussion, but not discussion that would be particularly useful to write down
 - * We're talking about how we would improve the icons he's shown on the slides, it's been mentioned that you want to have concrete items that display what the functionality is, not really abstract shapes and things
 - * You also have to keep in mind that icons are small and aren't able to have a bunch of detail

How People Interpret Icons

- Perceive (look at) the image
- Respond to its impressions (i.e. what we associate the objects/images with in life)
 - The weird u-shaped icon has a shadow at the bottom which helps us perceive that there is an “up” to the image, we can identify a vertical nature
- We make associations (I probs covered this in responding to its impressions)
- We recognize the represented object (this is hard for abstract icons like the u-shaped one)
 - Aha! The weird one connects two things in an old version of Keynote
- Labeling can help people understand what icons do
 - Understanding what an icon does involves multiple steps, different degrees of perceptual and cognitive “distance”
 - An extra step is involved when icons represent every day things (like having the shopping cart icon for purchases)
- When icons are in sets, we want to make sure that people can determine an unambiguous meaning from each icon

Learning Icons

- Learning and recalling icons can be hard
- They're not self explanatory, they must be learned
 - Sometimes the purpose is not apparent

- New users often have to do trial-and-error
 - Once they're learned though, they're easy to use and efficient
- Some icons are universal- even across cultures
- Icon learnability can be improved with text
 - It's usually a good idea to have some sort of short name as a label
 - It's a good idea to have a description through a tooltip
 - * Uh...what's a tooltip?
 - You don't want to hinder normal operation (both skilled and learned) with both a label and a description
- Do you turn off your labels once you get used to an application?
 - Some said fuck yeah
 - Some said...you can do that? (this is me I am some)
 - Some people said nah the extra space isn't worth it
- Text, icons, or both? General rules:
 - Recall of images is better than recall of text
 - Recognition of previously learned images is almost perfect (this is not the same as association)
 - * We can recognize images but have no fucking clue what they mean
 - It's easier to tell images apart than to tell text apart
 - * Different images look more different from each other than different text
 - * Images can take advantage of color, texture, etc
- What happens when people try to understand a new icon?

Types of Icons

- Objects: files, folders, shapes, etc
- Object attributes: font, color, justification, etc
- Functions: opening, saving, printing, start/stop/pause, last/next, etc
- Operational States: modes, errors/warnings, etc

Designing Understandable Icons

- People understand icons as both representations of objects and objects themselves
 - When you have a folder icon, you can drag it to move the folder itself in your file system
 - You can rename a folder icon and change its representation
- This means we want to design icons to:
 - support those interpretations (are we acting on the thing or just the representation of the thing), and they should be able to quickly and easily transition between the two
 - allow association with objects/functions/modes through simple imagery
 - make sure that multiple icons aren't too similar in the overall interface; keep them far enough apart that they are different but still representative of their functions
- In the original Mac OS, a trash can was used for ejecting disks *and* deleting files (lmao)