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Human Computer Interaction NCSU Spring 2017
Assignment – 1

Examples of poor usability from your own personal experience.

1a. In Hunt Library, the conference room doors open inside, i.e. you have to push them to enter into the room. I found this different, and counter intuitive to my experience of pulling doors to enter, and pushing to exit. Also, in such a room, if a person is seated behind the door, he has to move when someone enters or exits the room, which is inconvenient. Overall I think this is a usability and a consistency problem.

1b. There should be consistency in the usage of a feature, when applied in different locations, so that the user doesn't have to re-learn the rules of interaction. If this is not the case then it's a usability and consistency problem.

2a. The water pitcher filter I have at home has a flaw, where the water(which is still to purified) in the upper section of filter leaks in the lower section, when tilted to pour water out of it. This happens due to the plastic cap, which does not prevent water from leaking when closed. I have to wait for the water in the upper section to clear out, before pouring myself pure water from lower section. This is a flaw in usability and availability, as the functionality of a pitcher is not fulfilled.

2b. A product has a usability problem if is not designed to fulfill it's functional requirements in parallel to some internal process that it's performing.

3a. In my shower, you vary the temperature by rotating this circular knob, rotate right for hot water and left for cold. You operate, by pulling the knob outward to start water flow and pushing inward to stop the flow. You can vary the speed of the water flow by very carefully adjusting the knob, inward for slow and outward for fast. I did not find this(speed-varying) operation easy for a user to figure out. Being a new user, I found the speed of water flow too high as I operated the knob as a (on-off)switch, and could find no obvious way to adjust the speed, until much later. The knob fulfills 2 different functions (speed and temperature), which is confusing for the user.

3b. Discoverability of operation in a device should be made simple, and a single component should not fulfill many complicated tasks.

4a. My smartphone's cellular SIM slot, is very difficult to operate, where releasing/ejecting the SIM from slot takes considerable time with hand after many tries, or with the use of special equipment. The position of the slot is in the middle of the phone, and the slot is shallow, where fingers do not get considerable grip, and slip easily. When using some sharp equipment to eject, there is the potential to jam or damage the SIM slot. I think this is a design flaw in the placement of the SIM slot. Also user should be able to do this basic operation without the need for any special equipment or tactic.

4b. An essential operation(although it might not be very frequent) which the user has to perform on the device, should not require special equipment or special technical skill. The operation should be made easy and accessible.

How bad designs in general occur and persist. Why aren't they caught in development and testing? Why aren't they pushed out of the market by better designs?

5. In my opinion, bad designs generally occur when the people that design, do not factor in the perspective and requirements of users who are different than themselves. This usually can be seen when an Engineer designs something, he might make (wrong) assumptions about the end users ability to understand and deal with complexity.

Good design principles might get ignored, in favor of a products functional requirement (cost etc.). And there might be similar people involved in development and testing phase, which is how bad design gets glossed over. A bad design might persist in the market due to the product being first to have a set of features or simply a big market share. Users might get used to the bad design eventually because of the market monopoly. When after a better design is introduced, the people who already have adjusted to the previous(bad) design might resist, as the previous design is seen as a convention now. Users might prefer familiarity over something new.