Designing Interactive Systems I: Lab 4

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Pitfalls in A01

- You have to understand the purpose of the design before critique it.

Scenario:

Knifes are dangerous!

I had this knife which really confused me for the first time. I tried to use it like any normal knife, I thought that the side with the red arrow cuts, but when I tried using it, I was cutting!! I thought maybe this knife is too old and perhaps it is cutting!! I notice that surprisingly the other side is the sharp side. Though every time I wanted to use the other side, I notice that the problem is that we need some sort of sign which indicates which side should be used for cutting.

The handle is also much larger and thicker than the blade, which made it more difficult to handle.

Which design principles are used or violated?

The design violates the Natural Mapping concept. The first thing that mankind used for cutting things, was a dished shape! Moreover, the only physical constraint that we can see is the shape of hand which indicates that it should be held in that specific direction. It might have the basic shape of a knife, but the right affordances to which side is really can cut.

Why might the designer have deliberately violated the principles?

I believe that the designer wanted to make it more applicable, which is obviously not. This is a simple utensil in kitchen. Some reasons for such design, I may think that the designer think that we may cut object in a curve way, or maybe this shape collects more energy on the edges when you push to cut. For me, I think how this may work or find a real reason for this unfamiliar design. I would suggest the normal and usual shape of the knife we all know, it really works.

Some other knives:

The most one to the right is the best knife I had in my room because it has a special edge for the cutting side, very easy to recognize, and as you can see the shape of hand would leave no doubts that this is the right side for holding it (physical constraint, natural mapping, and affordance!).

A nice carve which is known to all of us and also the other side is so straight that no one would have mistaken using this knife. So it has natural mapping.
Pitfalls in A01

- Bad design ≠ limited functionality
Pitfalls in A01

- Comparing two irrelevant designs
Pitfalls in A01

- Conceptual model is not how a designer create the mental model
- It is how the user creates the mental model
- You can not do “conceptual modeling”
Pitfalls in A01

• Terminologies
  • Object usually have multiple affordances
  • Natural mapping or mapping naturally

• Process
  • Division of labor is good, but please read and discuss each other’s work
Video Prototyping

- Visualize the behavior of a system
- Videotaping brief instances in the user of the system
- Cut together to tell a scenario
- Great for envisioning futuristic system
- Example: Sun’s Starfire, Apple’s Knowledge Navigator
Video Prototyping Examples

- **Starfire**: [http://www.youtube.com/watch?v=jhe1DFY-SsQ](http://www.youtube.com/watch?v=jhe1DFY-SsQ)

- **Knowledge Navigator**: [http://www.youtube.com/watch?v=QRH8eimU_20](http://www.youtube.com/watch?v=QRH8eimU_20)
Discussion

• Why video prototyping was chosen for Starfire and Knowledge Navigator?

• What were techniques that are used to simulate the system?

• If you will create prototypes to illustrate the same points in the present time, what allows you to do differently?