

6 Usability and Principles of Good Designs

The user centered design process consists of four steps: needfinding, initial design concepts and prototypes, test with users (original or other) and iteration. Over the past few weeks, we have covered every step in the design process. Now we are going to focus on the details. Architect Mies van der Rohe once stated “God is in the details”. While high level concepts are important, the particular way a product is produced can make or break a design. Users are passionate about details.

Usability

Usability is the ease of use of a time physically and psychologically. Depending on the timescale of use, initial usability vs long term usability, the design may differ greatly. For example, ATM are extremely intuitive and has button labelling every step along the way while a plane’s cockpit which is used only by trained pilots for a lifetime.

Discuss:

- What other products are designed for short-term usability? Long-term usability?
- What characteristics are suitable for short-term products? Long-term?

Principles of good design

- 1) Visibility – can you tell what to do just by looking?
- 2) Good conceptual model – consistent presentations of operations and results
- 3) Good mappings – user has sense of what will happen with each action
- 4) Feedback – full and continuous feedback of actions

Discuss:

- What product satisfies all of the criteria above? Do you think it is a good product?
- What products does not satisfy one or more principles? How can it be improved? Is it a good product?

Why do bad designs happen?

People often create bad designs without knowing it. Most of the time, bad designs do not come from a lack of effort or time poured into the creation, but a lack of reality check. Bad designs often had too strong a focus on the visual. Just because a device is sleek and thing, doesn’t mean it holds up well when dropped five feet from the ground. Bad designs often happen when designers are not users themselves. They may create features that are not easily assessable or intuitive to use. For example, Facebook’s mobile app was awful when it first came out. That is because the engineers at Facebook rarely leave the office (thanks to all the perks of working there) and thus they do not use the mobile app often enough to know its faults. Similarly, the designer’s clients might not be users either.

Designs may also be bad if they are inappropriate for the user. Designing is often done for special people, but not for the end user. Designs may be done for people of different heights, weights, hand sizes, hearing, visual ability etc. As a result, these details may get in the way of a product’s usability.

Temptations of the design/engineering

There are design details that an engineering may be tempted to do but are actually detrimental to a product. Firstly, the creeping featurism. While more features are often considered better, they can also be confusing. For example, how many camera settings do you use? Yet that is often a consideration when people are purchasing new gadgets. Similarly, complexity is not necessarily good. Sometimes less is more.

Activity:

Look back at your prototypes and use the Principles of Good Design as a checklist. Are there any changes that need to be made? What might make it a bad design?