

Assignment 2 – worth 10% of final mark

In this assignment, you will:

- Practice looking at the environment from a designer's perspective, and improve your observation skills at home, in the car, elevator, convenience store, parking garage, library, etc.
- Think about users' needs and cultural assumptions that impact on daily tasks.
- Develop visual thinking skills.

The assignment has to be handed out on paper and sent in pdf format to aalbu@uvic.ca and trjb@uvic.ca by the start of the class of July 20.

1. Differences between **real** and **perceived affordances** are in some cases critical for the usability of physical objects. Designers have to send correct messages to the users about the possible (or not possible) interactions with the object. The users should be able to perceive the affordances that designers think are important.

*Find two objects (either well-designed or with flaws in design) and draw a list of their real and perceived affordances. Comment on the role of design to make important affordances **visible**. Your comments have to be supported by photos (at least two for every object) or sketches. Please don't submit images downloaded from the web. The photos (sketches) of each object should explore a different aspect of its design and functionality. For example, if you are analyzing a light switch, take pictures showing the on and off position.*

Do not choose objects that have been already discussed in Norman's book or during the lectures. No points will be given for a discussion of affordances of such objects.

2. **Mappings** are usually necessary if the object affordance cannot be exploited by direct manipulation. For example, for turning the car to the right, one turns the steering wheel to the right. This is an example of natural mapping, which is easy to understand and remember.

Find two examples of poor mappings in simple user interfaces. Choose interfaces from physical devices that you have had personal experience with (e.g. the interface to your washing machine or wrist watch). For each example, explain the flaw(s) in the mapping and comment on the impact of the poor mapping on the usability of the interface. Which dimension of usability is mostly affected? These examples should be supported by photos or sketches, which should not be downloaded from the web. Redesign suggestions are welcome, but not mandatory.

Note: Chapter 1 from Don Norman's book (*the design of everyday things*) contains a comprehensive presentation and discussion of the concepts of affordances and mappings that we have discussed in class. This document can be retrieved from the CENG 412 web site.