Exercise 2 – Analyzing Design October 9, 2019

In this exercise, you will conduct **two design analyses** relying on **design concepts** drawn from "The Design of Everyday Things" by Donald K. Norman. For analysis #1, you are asked to analyze a familiar **physical environment.** For analysis #2, you will analyze a **digital system**.

Analysis #1: Analysis of a physical environment

We ask you to consider the complex physical environment of a grocery store or supermarket, including the objects in it, the environment itself, and the activities that occur within it. We recommend that you think about a **specific instance or two** of this environment with which you are particularly familiar (e.g., the Coop supermarket near the Central tram stop), rather than a generalized setting.

Analyze the environment and its various components using design concepts presented by Norman. You should feel free to include any design concepts that you feel are appropriate in your analysis; However, we recommend you consider **at least the following design concepts** in thinking about the grocery store or supermarket.

1) Affordances
2) Signifiers
3) Mappings
4) Constraints (Physical, Logical, Semantic, Cultural)
5) Feedback
6) Discoverability

Please analyze this environment with regards to as **many diverse activities** as possible within the grocery store (e.g., checkout, entrance and exit, baskets and shopping carts, weighing vegetables, etc.)

Questions to consider in your analysis:

- How do the above design concepts **manifest themselves** in the environment and the objects or systems within it?
- Are the instances of the design concepts **effective or ineffective** for supporting the user's interaction? Why or why not?
- Are there ways in which the environment or objects could be **improved**, particularly in terms how they employ these design concepts?

You must **support your analysis** by applying Don Norman's design concepts above.

Example of the type of observation and argument you might include in your analysis:

> *"At the grocery store checkout there are metal basket holders that effectively indicate where you should put your empty basket. The presence of the basket holder serves as a* ***signifier*** *of what you should do with the empty basket, and the shape of the basket holder* ***perceivably affords*** *placing a basket into it. This design is especially effective at communicating its purpose; no additional intentional signifiers such as labels or signs are needed to indicate its function."*

Analysis #2: Analysis of a digital system

We ask you to consider the complex digital system of an **email client**. Consider one **single system and the device** on which you will use the system (e.g., the Gmail app on an iPhone, the web-based Outlook client as viewed on a laptop, etc.) and analyze it by exploring the client and its features together.

Analyze the email client and its various components using design concepts presented by Norman. Please **focus on the INTERFACE,** not the back-end or architecture. You should feel free to include any design concepts that you feel are appropriate in your analysis; However, we recommend that you consider **at least the following design concepts** in thinking about the email client.

1) Affordances
2) Signifiers
3) Mappings
4) Constraints (Physical, Logical, Semantic, Cultural)
5) Feedback
6) Discoverability

Please analyze this email client with regards to as **many diverse activities** as possible (e.g., functions for composing and sending, organization of inbox, adding attachments, etc.)

Questions to consider in your analysis:

- How do these concepts **manifest themselves** in the system and its features and components?
- Are the instances of the concepts **effective or ineffective** for supporting the user's interaction?
- Are there ways in which the system or its components could be **improved**, particularly in terms how they employ these design concepts?

You should **support your analysis**, by referencing Don Norman's design concepts above.

An example of the type of observation and argument you might include in your analysis:

> *"The Gmail email client as viewed on a laptop screen - provides a **physical constraint** to prevent an email from being sent without an attachment if the content of the email makes mention of an attachment. The client presents a dialogue box indicating that the user is attempting to send the email without an attachment and asks whether it should continue with the send. This physical constraint is an effective **forcing function** in the form of a **lock-in** that prevents the action from being completed in the event that the user has forgotten a step. "*