University of Chakwal
Department of CS

Course : Human Computer Interaction

Assignment #1
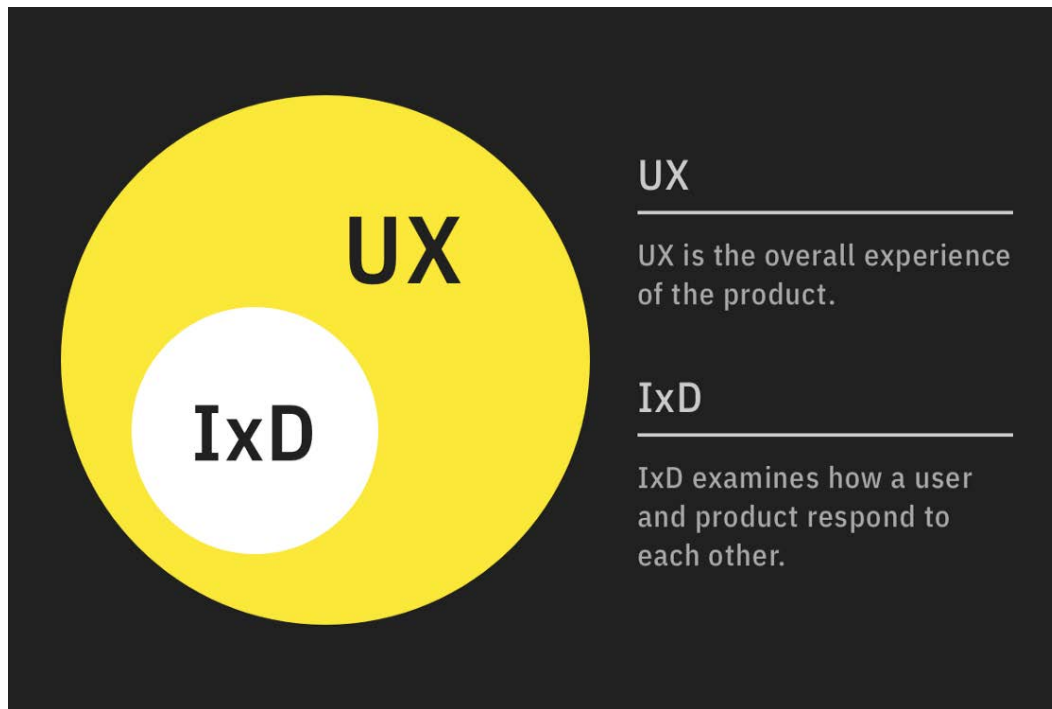
Submitted by: Bint-e-Zahra

21-UOC/CS-14

Submitted to: Ma'am Huma

Date: November 23th, 2023

Interaction Design

Interaction design can be understood in simple (but not *simplified*) terms: it is the design of the interaction between users and products. Most often when people talk about interaction design, the products tend to be software products like apps or websites. The goal of interaction design is to create products that enable the user to achieve their objective(s) in the best way possible.

There's a huge overlap between interaction design and UX design. After all, UX design is about shaping the experience of using a product, and most part of that experience involves some *interaction* between the user and the product. But UX design is more than interaction design: it also involves user research (finding out who the users are in the first place), creating user personas (why, and under what conditions, would they use the product), performing user testing and usability testing, etc.

UX

UX is the overall experience of the product.

IxD

IxD examines how a user and product respond to each other.

Dimensions:

- **1D Words** - The semantics, or meaning, and character of a user's interactions are represented by this dimension. Words are strong because we are capable of absorbing them swiftly and implicitly, but they have a significant effect on us. A single word may convey a lot of information, yet words are vulnerable to interpretation. As a result, the vocabulary we employ must be recognizable to our target consumers, appropriately represent the activities they imply, delivered in a suitable tone, and applied consistently throughout the product.

- **2D Visual Representations** – This dimension refers to the elements that are not words within a product, such as the typography, diagrams, icons, and other graphics. These elements are no less powerful than words, as we are capable of processing imagery just as quickly and extracting meaning within a split second. 2D visual representations are now commonplace in user interfaces, and we have already stored thousands of these elements in long-term memory, which allows us to interpret displays – when

the design permits – immediately to the benefit of user experience. Four examples where 2D visual representations have been employed are: icons, foreground/background color distinctions, borders, and the use of visual hierarchies.

- **3D Physical Objects or Space** – The tangible means of control, such as a computer keyboard, mouse, touchscreen, joystick, games controller, and keypad. 1D words, 2D visual representations, and 3D physical objects define the user's interactions; providing with the tools and perceptible feedback to guide their actions and enable goal-completion.
- **Time (4D)** relates to media that changes with time, such as animations, videos and sounds.
- Behavior (5D) is concerned with how the previous four dimensions define the interactions a product affords—for instance, how users can perform actions on a website, or how users can operate a car. Behavior also refers to how the product reacts to the users' inputs and provides feedback.

Good Design vs Bad Design:

Good design makes a product useful. A product is bought to be used. It has to satisfy certain criteria, not only functional, but also psychological and aesthetic. Good design emphasizes the usefulness of a product whilst disregarding anything that could possibly detract from it.

Bad design is one which is not easy to understand, distracting, difficult to use and short lived. As I started seeing objects around me in a design perspective, I realized that it is easy to identify good designs in comparison to bad designs.

Identifying good and bad designs:

Dieter Rams ten principles can be used to identify good designs and differentiate between good and bad designs. They are,

- Good design is innovative.

- Good design makes a product useful.
- Good design is aesthetic.
- Good design makes a product understandable.
- Good design is unobtrusive.
- Good design is honest.
- Good design is long-lasting.
- Good design is thorough down to the last detail.
- Good design is environmentally-friendly
- Good design is as little design as possible

Examples:

1. Buttons on Login:

In the example above, we can see that on the left side all of the buttons in login form are in the same visual representation. This confuses the user as which to choose. A good design could be seen on the login page in the right side. It only displays CTA(call-to-Action) in bright and more vibrant color, whereas other buttons are rather muted. It guides the user eyes and help pick the right option for each of them.

2. Pop-Up Boxes.
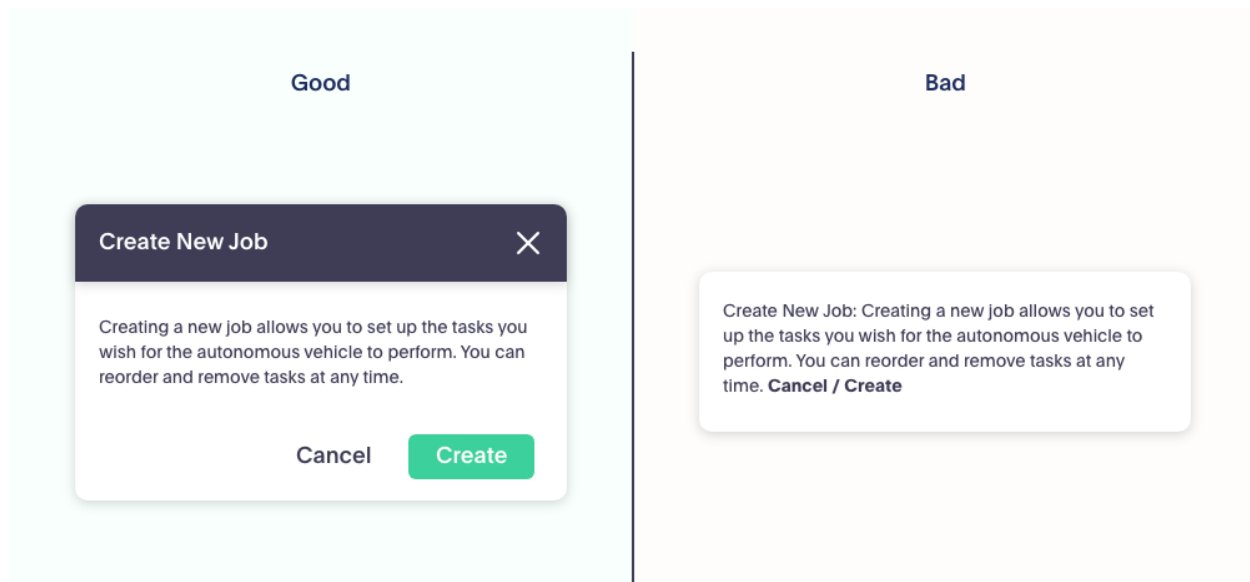
Here is a pop-up dialog box, now design on left side doesn't clearly guide user at the first glance. User needs to read first to understand what this prompt is about. Heading is defined but it is not prominently separated from other text, also buttons aren't clear and aligned. One can't get the idea that are those buttons or some random text.

A good design is on the left side, where user can clearly understand what this pop-up is about and heading is clearly distinct. In this dialog, we as website owner can clearly communicate to what next step user should take by creating the "Create" button more vibrant to standout more.

3. Alignment
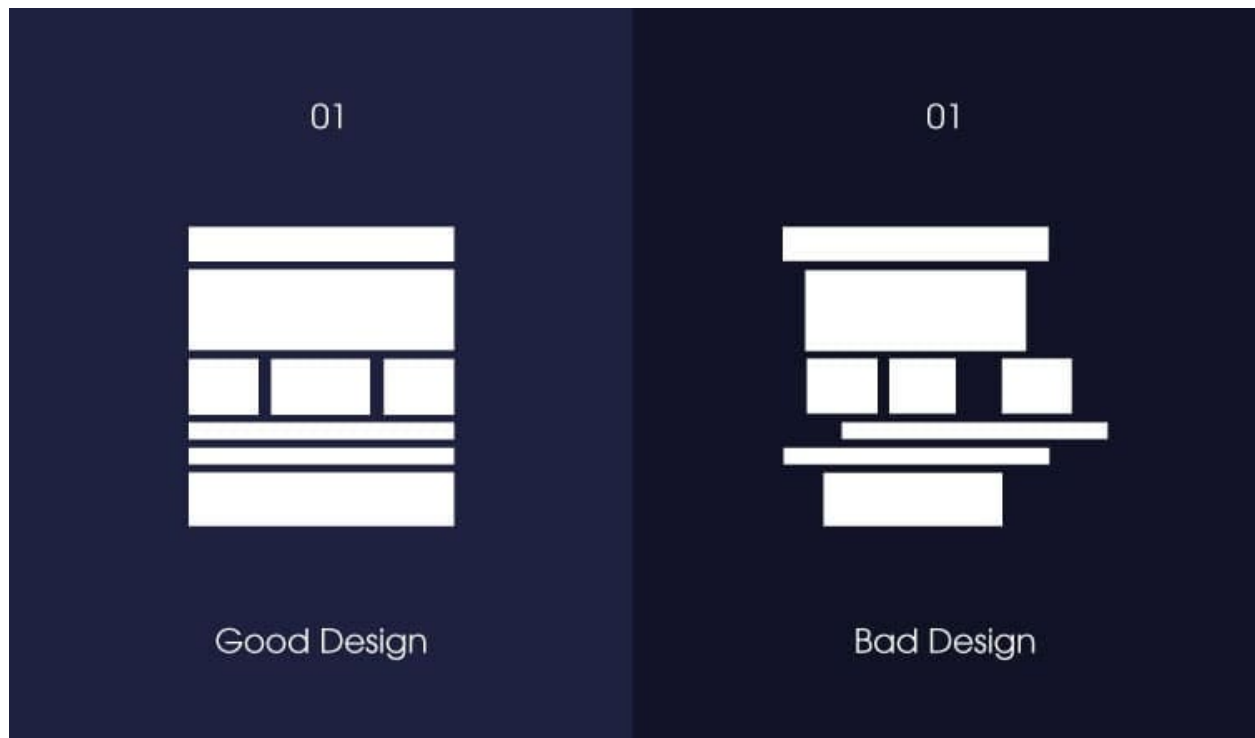
In the above example, there isn't any sort of alignment in bad design which makes things look fall apart although it could be their design.

4. Buttons
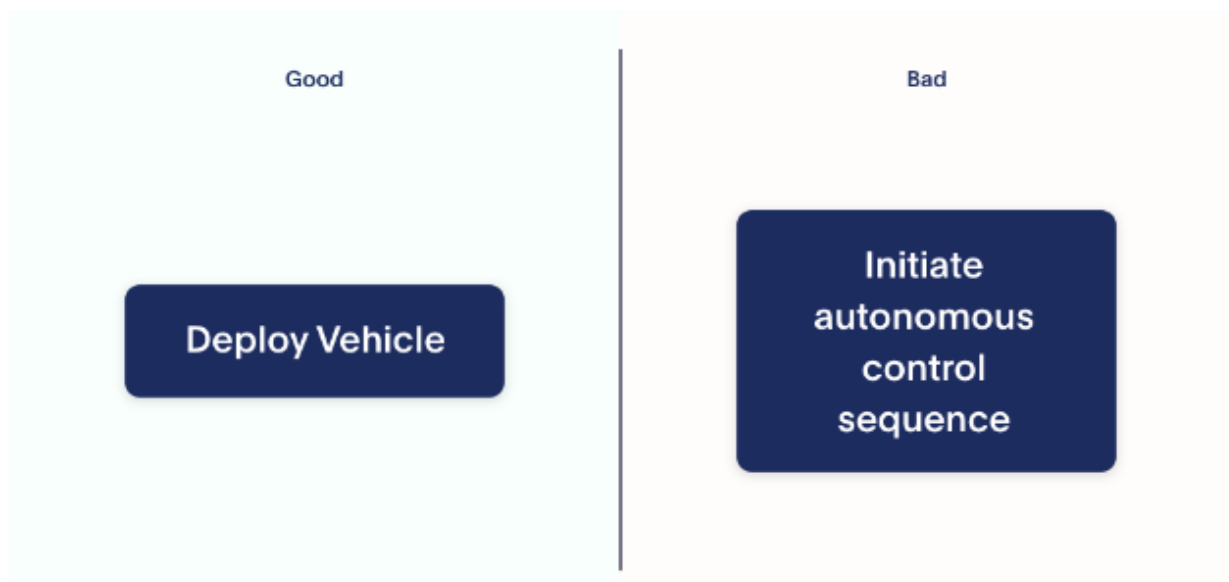
It is essential to keep buttons concise. Large buttons will likely be interpreted as a text block or an ad rather than a call-to-action.

5. Forms

A standard form might be tricky to fill out when something goes wrong. A good solution is to highlight the field with an issue so the user can correct or edit the line quickly. Imagine yourself confronted with these two forms and pick the one that would be easier to correct.

The Key Takeaway

Isn't it entertaining to look at examples of awful design? Fortunately, it's also informative. The following are the main takeaways and recommended practices from the five instances of excellent and terrible design:

- Determine what information your users require and then provide it.
- If you need to convey a lot of information, try employing pictures instead of writing.

- Label all of your links! Users dislike mysterious connections.
- Avoid introducing any form of impediment to user activities unless it's intended to deter the behavior.

- Put your smart concepts to the test and incorporate them with caution.

- Animation is akin to swearing. When used excessively, it loses all of its potency.