COLLEGE OF COMPUTER STUDIES



WEEK 4-5 User-Centered Design

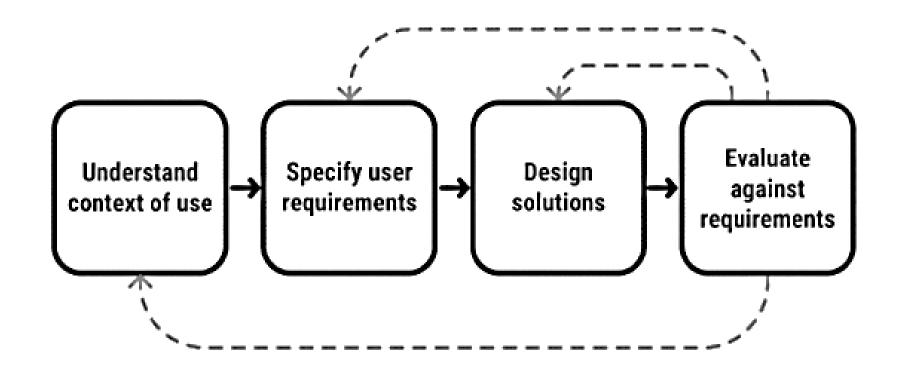
Learning Outcomes

- Explain the scope of User-Centered Design
- Enumerate and Understand the Conceptual and Mental Models and Metaphors used in design for User's Capabilities.

What is User-Centered Design?

• **User-centered design** (UCD) is a collection of processes which focus on putting users at the center of product design and development. You develop your digital product taking into account your user's requirements, objectives and feedback.

- User-centered design (UCD) is an iterative design process in which designers and other stakeholders focus on the users and their needs in each phase of the design process.
- UCD calls for involving users throughout the design process via a variety of research and design techniques so as to create highly usable and accessible products for them.



The Essential Elements of User-Centered Design

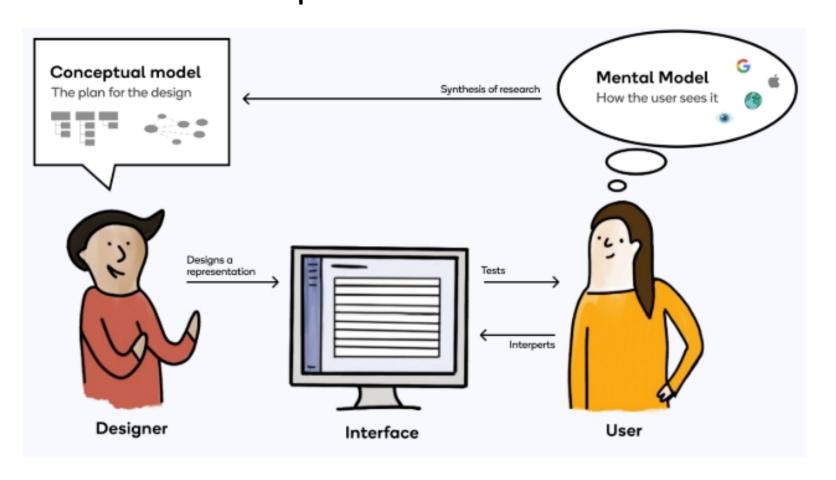
• Visibility: Users should be able to see from the beginning what they can do with the product, what is it about, how they can use it.

• Accessibility: Users should be able to find information easily and quickly. They should be offered various ways to find information for example call to action buttons, search option, menu, etc.

• Legibility: Text should be easy to read. As simple as that.

• Language: Short sentences are preferred here. The easier the phrase and the words, the better.

Mental and Conceptual Models



- Design is a quest to find the best possible match between the user's mental model that they have in their mind, and the conceptual model that you're presenting to them with your product.
- These two models run through all resolutions of design everything from developing a product system to crafting a single button.
 Understanding how they work together will help you design products that users can easily understand.

What is a mental model?

- A 'mental model' refers to a user's underlying expectations about how something should work.
- It's formed based on what they already do, prior experiences with similar products, or by assumptions they've made based on how it appears (also known as perceived affordances).

For example:

- **Booking a flight** You have a basic expectation of what steps you will take, and the information you'll need along the way.
- A chat app You expect that messages will go back and fourth in real time, and that you can also send attachments like photos and GIFS. You expect to be notified as soon as someone has replied to you.
- **Driving a car** You have expectations of what the main things you can interact with are, what the car is capable of doing, and how to appropriately drive it in your country.

• It's important to remember that a person's **mental model is constantly evolving and subject to change.** It's influenced by new experiences with your product, other technologies, and day to day life.

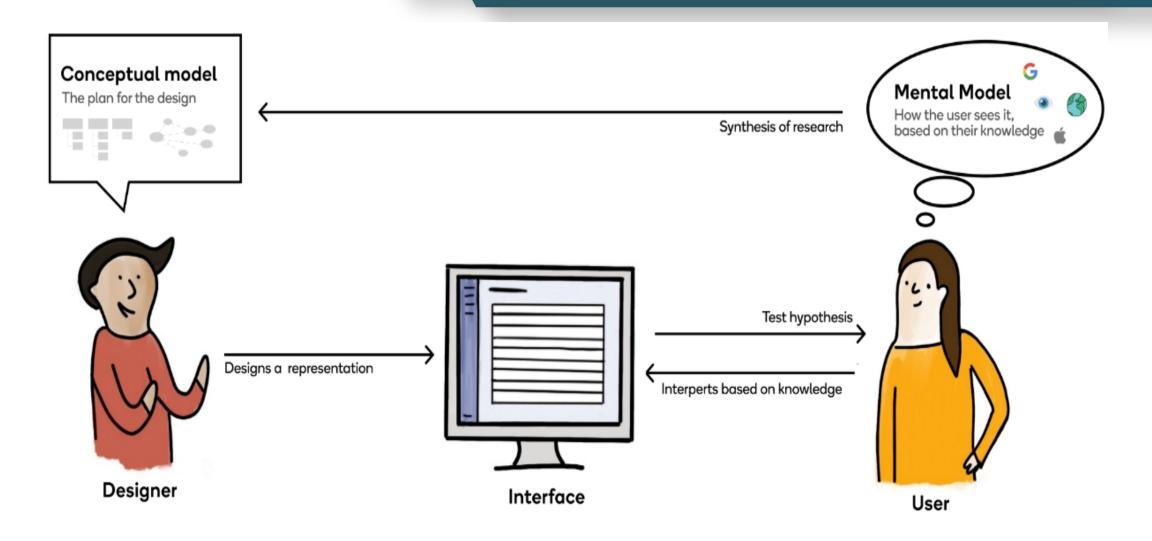
What is a conceptual model?

- A conceptual model is created by the designer as a high-level plan for how the product will work and fit together.
- It's made up of different elements that shape the organization of the system, and is ultimately represented in the interface that the customer interacts with.

Elements that contribute to the conceptual model of your product include:

- Information architecture How are the different areas being grouped and structured? Where are your customers expecting to find the answers to their mental model within your product? Does that match their expectations?
- **Terminology** Is the user familiar with the words being used? Are they broad terms that infer what you can do in each part of the product? How closely do they match the terms the customers use every day?

- **Content strategy** What are the guiding concepts or rules for the types of content appearing on each page?
- **Channel strategy** Are you creating consistent, continuous, or complementary experiences?
- Interaction models Are you using well known patterns?
 Introducing something new? How are people interacting with the system?



Next Week

What is a Metaphor?

 As Merriam-Webster notes, a metaphor is a rhetorical device "in which a word or phrase literally denoting one kind of object or idea is used in place of another to suggest a likeness or analogy between them."

Because metaphor suggests a likeness between objects and ideas, it is a powerful way to articulate the new or the conceptual. Metaphor helps us explain something new and unfamiliar in terms of the familiar. Metaphor also enables us to describe the conceptual in terms of the tangible.

The principle of Metaphor

- The principle of Metaphor states that an interface should implemented behavior from system that the users are familiars with. It increases the understandability of even most complex application by introducing the element of being familiar with the environment user has been working as for this entire for have.
- Furthermore, metaphor can be further extended to provide functionality that is not only acceptable but also usable in the whole interface. This property of extendibility, differentiate between a strong metaphors from a weak one.

7 Deep Metaphors

An effective marketing strategy, the Zaltmans argue, should consider how to tap into these seven *deep metaphors*:

- balance—which focuses on justice, equilibrium, and the interplay of elements
- transformation—including changes in substance and circumstances
- journey—involving the meeting of past, present, and future

- container—encompassing inclusion, exclusion, states of being, and other boundaries
- connection—which focuses on the need to relate to oneself and others
- resource—involving acquisitions and their consequences
- control—the sense of mastery, vulnerability, and well-being

 A few examples, The promotion and content—instructions, button labels, images, and the like—of self-service applications could draw on the *control* metaphor. Social networking products naturally tap into connection. Product positioning and interactive marketing efforts can evoke metaphors in many different ways. For instance, with one image, Hearing Planet relates its products, hearing aids, to the metaphor of connection. When older adults lose their hearing, they also lose their ability to participate in conversations and, consequently, the ability to connect with friends and family. A hearing aid restores that ability.

• Another example is the way Apple depicts MobileMe. The line "keep everything in sync" coupled with the cloud—holding representations of different core applications such as email and calendar—suggests container. On a shallow level, this helps make the abstract concept of a Web-based service concrete. On a deeper level, MobileMe is attempting to tap into customers' need to have constant access to their tools—to remain in a state of perpetual access.

The End.