

## **What is Interaction Design?**

Interaction Design is a complex field. It's more than just designing an interface-- it's about designing the entire interconnected system, which consists of the device, the interface, the context, the environment, and the people. It defines the structure and behavior of interactive systems. Designers strive to create meaningful relationships between people and the products they use.

## **What is the interaction design process?**

Designers need to know and understand the business requirements, the technological constraints, and the user's wants and needs. They have to keep an open-mind and see things from many perspectives.

They often follow a workflow that looks like this: definition, research, ideation, design, prototyping, observation, and iteration if needed. The research portion is always ongoing-- you can never have enough data and knowledge.

## **What tools and techniques do designers use?**

Designers start it simple by using pen and paper or whiteboards to create concept sketches. Once they need cleaner, more detailed concepts, they use digital design tools such as Adobe Photoshop, Indesign, Fireworks, etc. Coding languages like HTML, CSS, and Javascript are also used.

## **Five Essential Principles of Interaction Design**

### ↳ Consistency

The first essential principle is consistency. Humans are sensitive to change-- change captures our attention. This can be used in design. You can use changing elements to draw the eye, but keeping things consistent is also important because it is not distracting.

### ↳ Perceivability

Hidden interactions decrease usability and efficiency. Users should not have to search for interactions. The interactions and important content should be easy to find. You can do this by using labels, hints and indicators, and visual cues. Humans are curious, so it is easy to guide their attention to things they can interact with, such as a buttons. Also be sure to think about accessibility-- visual, auditory, and tactile. What does a button feel like, look like, and sound like?

#### ↳ Learnability

Interactions should be easy to learn and easy to remember. A person should be able to use an interface once and then be able to remember how to use it from then on. This is why design patterns and consistency are important, because people will not have to relearn what things look like and where things are.

#### ↳ Predictability

You should be able to show people an interface and ask, before they touch it, what can you do with it? Where can you interact with this? What will happen if you do this, etc.? Avoid random interactions, guesses, and errors. A person should be able to tell where a button leads when they click on it. Unpredictability can be intentional, but be careful when and where you use it.

#### ↳ Feedback

Feedback acknowledges our interactions and gives us information about the outcomes. Use feedback to understand where you are, what your current status is, what you can do next, and when you are finished. Feedback should help the experience, not complicate it.