What is Interaction Design?

Interaction Design is Everywhere

Good design makes things:

usable, useful, and enjoyable.



Problems remain to be solved

Bad design makes things:

unusable, frustrating, unpleasant





So what is Interaction Design or IxD?

The focus is upon how **people interact** with technology.

The goal is to enhance people's understanding of **what can be done**, **what is happening**, **and what has just occurred**.

Interaction design draws upon principles of **psychology, design, art, and emotion** to ensure positive, enjoyable experience.

- Don Norman, Design of Everyday Things

Why do we care?

- 1. Help people easily understand and perform tasks.
- 2. Remove irritants
- 3. Accommodate people's needs, capabilities, and behaviors
- 4. Facilitate more meaningful interactions
- 5. Ultimately... aim to improve relationship between people and technology.

What good interaction and bad interaction experiences have you had in your daily life?

IxD is Holistic

Interactive Products and Services

Smart phones / handheld devices Toys / games Remotes / controllers Wearables Smart Home Technology Mobile applications / software Entertainment systems (tv/music) Websites Robotics

hulu 00 72

Hard to define.

IxD is technology-agnostic and many disciplines overlap.

Interactive Spaces

Airport / mall / bank kiosks Restaurants Retail Exhibition Signage / wayfinding / navigation Theme parks

Hard to define.



IxD is technology-agnostic and many disciplines overlap.



The Disciplines of User Experience Design is a mega Venn diagram by Dan Saffer



Wear many hats.

Don't see this as the only road map for the entire UX design industry, but a postulation as to **why it's so darned complicated to nail good UX.**

To think any designer could be an expert in each of these circles is sheer absurdity, but to recognize that **every end user is an expert in each of these circles is highly important.**

As humans and end users, we might not know what makes an experience right, but we certainly know when it's wrong.

Fast Co.

I'm still confused. What is the difference?

User Experience (UX)

- The practice of designing products, processes, services, events, and environments with a focus on the **quality and enjoyment of the total experience.**
- The larger umbrella.

Interactive Design (IxD)

- The focus is upon how people interact with technology.
- Under the UX umbrella, but in the sweet spot.

Human-Centered Design

Let's throw another acronym in the mix!

Human-Centered Design (HCD) UX

- A philosophy and set of procedures applied to any focus.
- The process that ensures that the designs match the needs and capabilities of the people for whom they are intended.

UX and IxD

• Areas of focus. (We apply HCD to these areas)

Human-Centered Design Approach

A design philosophy and set of procedures in which the needs, wants, and capabilities of people using a product or service are given deep attention at each stage of the design process.

You are not the user. Nor is your boss or client.

- Who is the product for?
- Why would they use it?
- How will they use it?



Developer watching videotape of usability test.

The design is based upon The design team The design is driven and includes **multidisciplinary** refined by user-centered an explicit understanding skills and **diverse** of users, tasks, and evaluation and testing. perspectives. environments. **Local Experts Empathy Diverse Team Address Bias** Iterative Testing Intended users are The team addresses The process is **iterative**. considered **experts** and are implicit bias. involved throughout the the entire design process.

UX Teams

Typical UX Team

- User Experience Designer (this person would wear many hats)
- User Interface Designer
- UX Researcher
- Interaction Designer
- Information Architect
- Copywriting
- Content Strategist
- Visual Design
- Audio Designer
- Motion Designer

Diverse Teams

Ensure there are people with different backgrounds and perspectives on the team. Include advocates for the intended user.

Individual Roles & Tasks

personas

journeys

flows

functionalities



usability

screen structure

navigation

information architecture

visual design

aesthetics

digital interfaces

patterns

trends



UI Design

icons

shapes

animations

transitions

sounds

market user needs user behavior data collection user testing



research method selection

analytics

card sorting

field research

interviews

UX Team Structures

Internal Agency Model (fluid unit)

Cross Functional Model (pods)





UX Process

Waterfall Development Cycle

This is the traditional old school way of doing things.



Iterative Process

Involve your intended audience throughout. Include community experts.



Agile Model

Building

Replace high-level design with frequent redesign.

- Iterative and Incremental
- Collaborative Adaptive
- Sprints



Lean Model

Learning

Everything not adding value to the customer is waste.

- Reduces Cost
- Minimum Viable Product
- Quick Launch
- Less Emphasis on Deliverables



Data Driven

Lean UX doesn't assume a new design or feature is better than what came before it, it uses a deploy-and-test process as a feedback loop for designers.



Minimum Viable Product

Building the smallest possible thing needed to validate a hypothesis and delivers customer value.

This creates an iterative process where you are constantly building, learning, and then continuing to build based on what you learned.





Don't build a product like this. You only discover if you have succeeded at the end.



Instead start with something basic and gather feedback as you get more complex.



Research

Conduct User, Product, Competitive Research, Interview, Journey Map, Survey

Concept Development

Develop Personas, Frame the Problem, Hypothesize, Brainstorm Solutions, Prioritize Goals, Develop Product Statement

Ideate

Develop User Flow, Write Scenarios, Sketch, Wireframe

Test

Build and Design Prototypes, Test, Iterate

Case Study & Pitch Build Case Study and Pitch

Your Process



5-Step Process for Conducting User Research

Objectives, Hypotheses, Methods, Conduct, Synthesize





The first three steps of the spiral are about formulating and answering questions, so that you know what you need to learn during your research.

Research Learning Spiral, by Erin Sanders, Frog Design





Research & Synthesis

Concept / Prototype

Design