# Introduction to User Experience
# 4 ways to frame it

## CS 3240 - Usability Engineering
### Keith Instone

EVERYONE POOPS

By Taro Gomi

Some animals poop and pay no attention

Others clean up after themselves

Some stop to poop

Others do it on the move

Everybody eats. People have eating experiences.

Cooking skills can be learned. Cooking is part art and part science.

Managing food industry organizations is big business. It depends on business models, culture, and more.

There are many paths to being a culinary professional. You can learn on the job, study on your own, or get a degree.

Everybody uses technology. People have user experiences.

User-centered design skills can be learned. Defining, designing and delivering good experiences is part art and part science.

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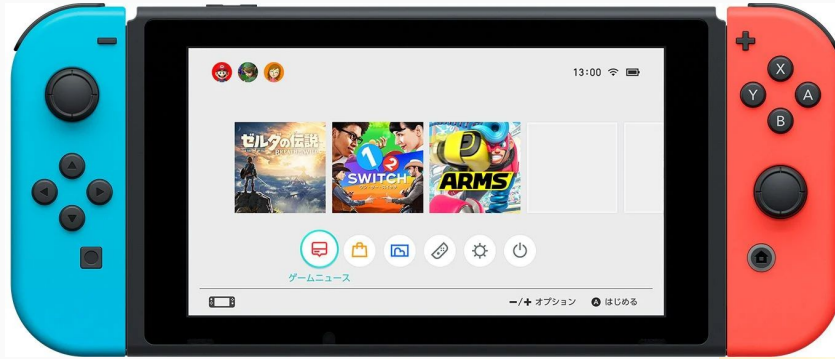
There are many paths to being a UX professional. You can learn on the job, study on your own, or get a degree.

# Everybody eats.
# People have eating experiences.









Menus are an interface, but they are not the whole dining experience

# Everybody uses technology.
# People have user experiences.

**User interface:** the buttons, controls & menus you interact with directly

**User experience:** the context, content, expectations, etc. that determine how you FEEL and what you REMEMBER

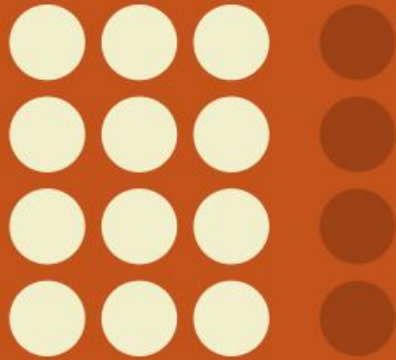**New Study Ranks Animal Crossing: New Horizons As Most Relaxing Game, Surprising No One**

Here are the top ten

by Ryan Craddock © Fri 1st May 2020

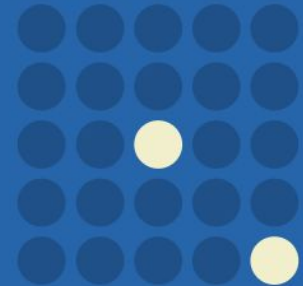# "Laws" of User Interface Design & UX

## Law of Proximity

Objects that are near, or proximate to each other, tend to be grouped together.

## Aesthetic-Usability Effect

Users often perceive aesthetically pleasing design as design that's more usable.

## Peak-End Rule

People judge an experience largely based on how they felt at its peak and at its end, rather than the total sum or average of every moment of the experience.

# When "consistency" might be bad
# And what if you could redesign the flow?



LOG IN

E-mail adress

Password
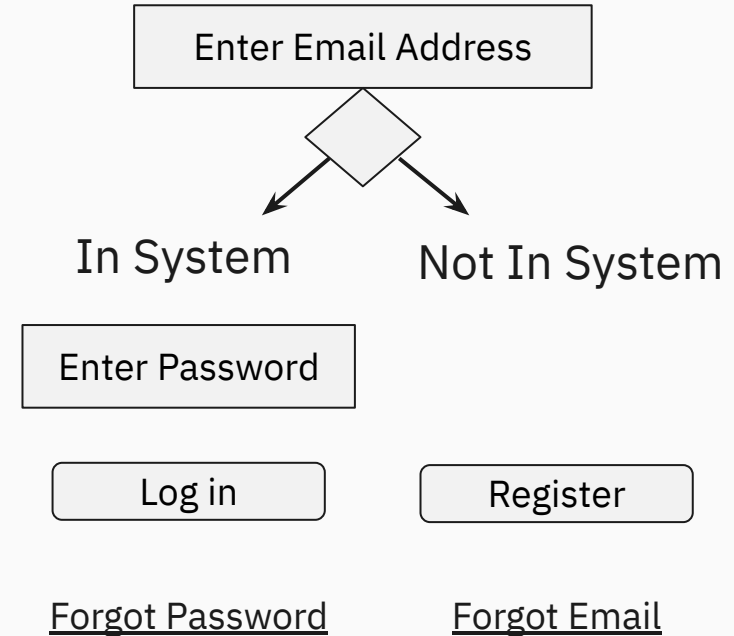
LOGIN ME

SIGN UP

FORGOT PASSWORD?

LOG IN

E-mail adress

Password

LOGIN ME

SIGN UP

Forgot Password?

Enter Email Address

In System                Not In System

Enter Password

Log in                    Register

Forgot Password          Forgot Email

# "THE UX" → "Our users' experienceS" (it depends...)

Replace "users" with specific phrases for different situations

- <u>Customers</u>, Potential customers, Current customers
- Employees, New hires, Invoice approvers
- Patients, Family members, Doctors, Anesthesiologists
- Residents, Citizens, Voters
- Faculty, Students (roles) → Teaching, Learning (goals)
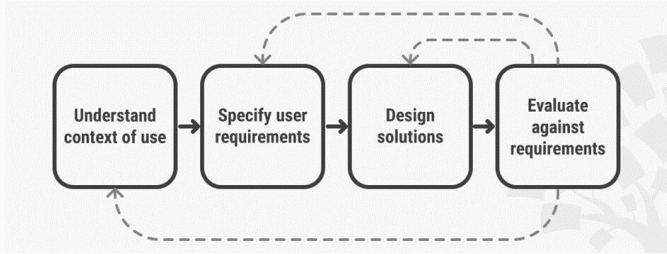- Non-humans? <u>Dogs</u>, <u>chickens</u>
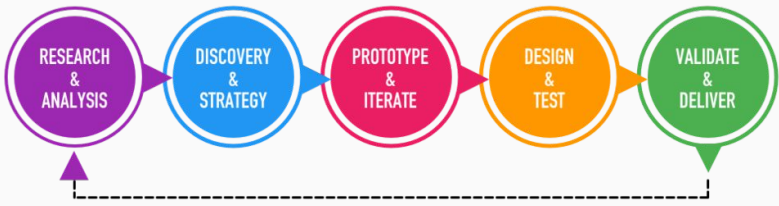
# Cooking skills can be learned.
# Cooking is part art and part science.
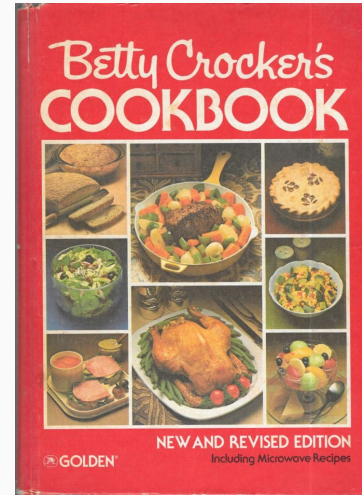
11
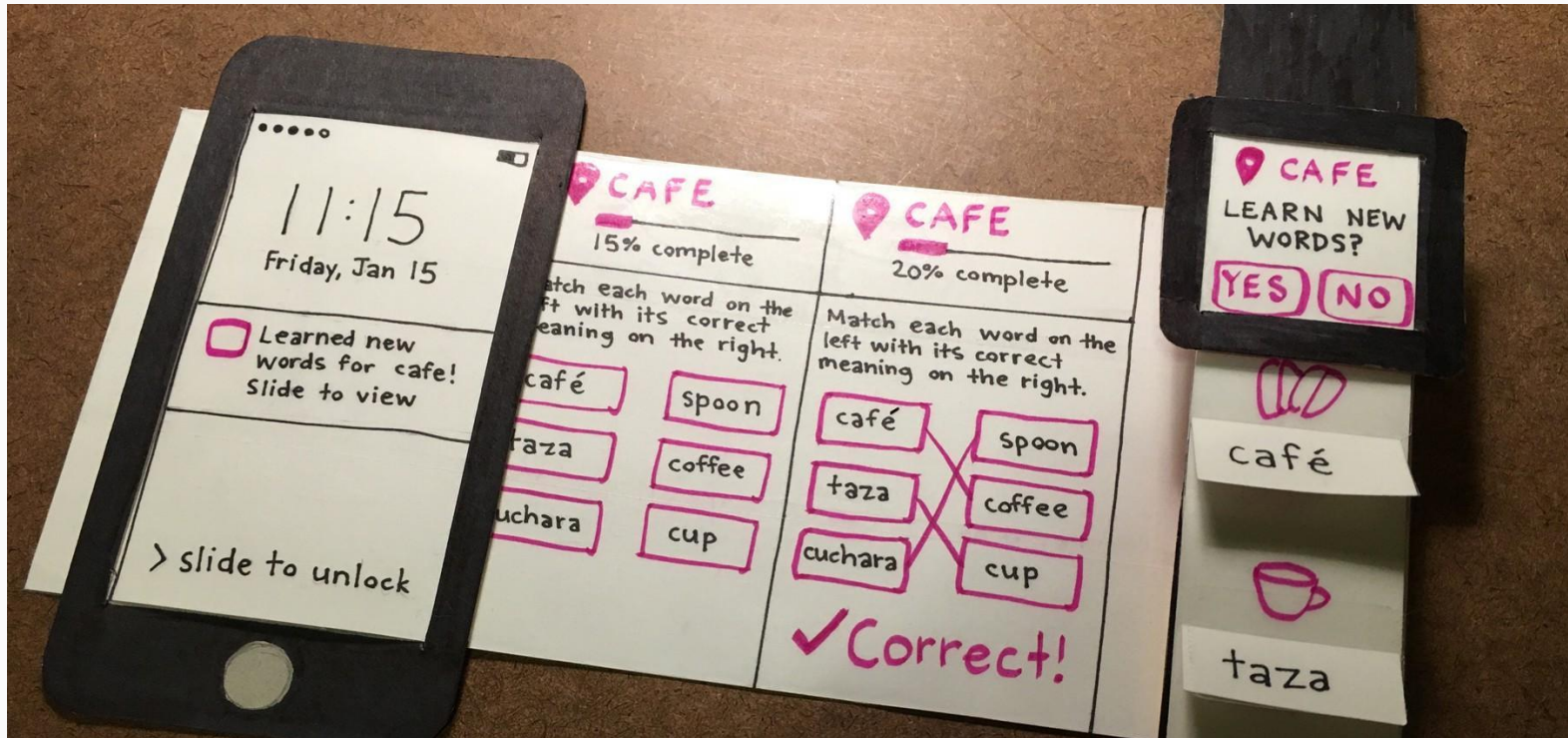
UCD: iterative, understanding users at every step
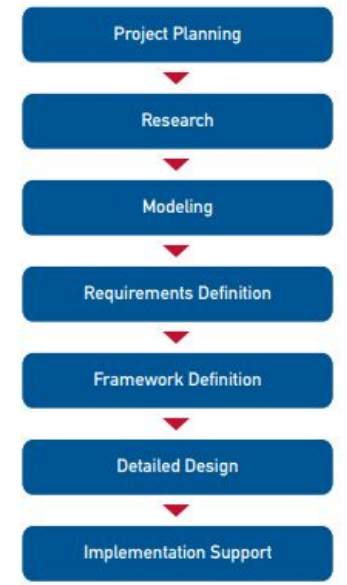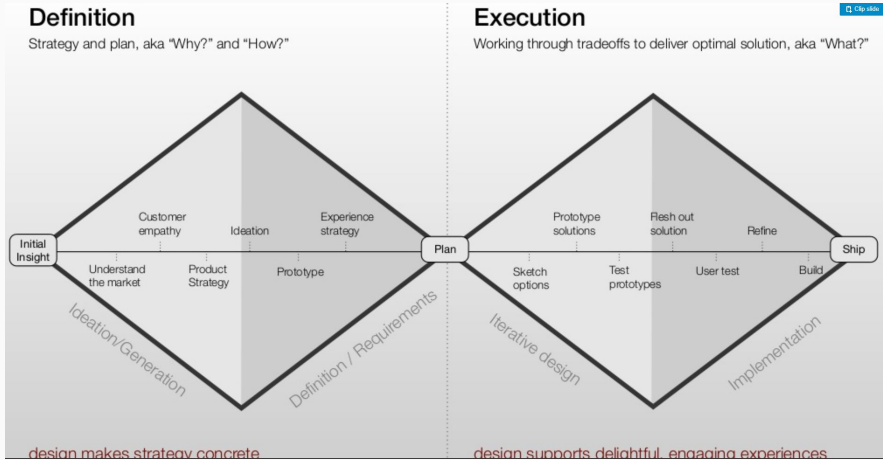


Goal-directed
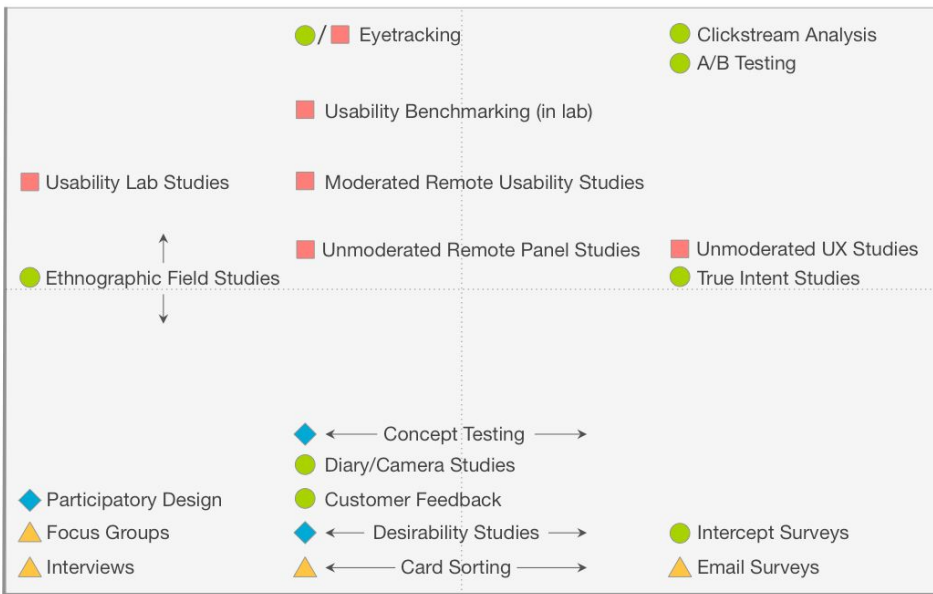


Double diamond: define & execute, diverge & converge

# Example user-centered design processes

## A LANDSCAPE OF USER RESEARCH METHODS

**BEHAVIORAL**

- ● / ■ Eyetracking
- ● Clickstream Analysis
- ● A/B Testing
- ■ Usability Benchmarking (in lab)
- ■ Usability Lab Studies
- ■ Moderated Remote Usability Studies
- ■ Unmoderated Remote Panel Studies
- ■ Unmoderated UX Studies
- ● Ethnographic Field Studies
- ● True Intent Studies

- ◆ ← Concept Testing →
- ● Diary/Camera Studies
- ● Customer Feedback
- ◆ Participatory Design
- ▲ Focus Groups
- ◆ ← Desirability Studies →
- ● Intercept Surveys
- ▲ Interviews
- ▲ ← Card Sorting →
- ▲ Email Surveys

**ATTITUDINAL**

**QUALITATIVE (DIRECT)** — **QUANTITATIVE (INDIRECT)**

### KEY FOR CONTEXT OF PRODUCT USE DURING DATA COLLECTION

- ● Natural use of product
- ▲ De-contextualized / not using product
- ■ Scripted (often lab-based) use of product
- ◆ Combination / hybrid

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Christian Rohrer

## Requirements Methods

**Current topics**

- Affinity Diagramming
- Claims Analysis
- Competitor Analysis
- Future Workshop
- Persona
- Quality Function Deployment (QFD)
- Stakeholder Interview
- Scenario of Use
- Use Case
- Usability Benchmark

## How does heuristic evaluation compare to usability testing?

Heuristic evaluation was codified around 1990, at a time when it was expensive to get access to users. It was common for people to have to be trained to use the technology being evaluated before they could sit down in a usability lab to perform some tasks. The whole concept of even having an interface for end-users was pretty new. Conventions were just settling into place.

Usability testing has been around since at least the 1980s, but began to be widely practiced about the same time Nielsen and Molich published their heuristic evaluation method. While usability testing probably needs some updating as a method, the basic process still works well. It is pretty

Methodology: knowing when (& when not) to apply a specific technique for a specific project based on goals, budget, time, … 13

DISCOVER
Focus Groups
Interviews / Surveys
Usability Audit
Gap Assessment
Usability Goals
Requirements Gathering

DEFINE
Brainstorming
User Profiling
Storyboarding
Creative Direction
Requirements Definition
User Experience Definition

DESIGN
Wireframing
Prototyping
Functional Design
Design Concepts
Visual Design

DEVELOP
UI Application Coding
Style guides
UI Specifications

DEPLOY
UI Assessment
Standards
Compliance Check
Accessibility Testing
User Training
Expert Evaluation

DRIVE
Usability Check
Maintain & Support
New Needs

Mapping steps in a process to specific activities: methods, work products & deliverables

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# UX as Mindset & Personality Type

"Everyone needs to get better at UX if we want to be agile and innovative."

*A skill set, a collection of abilities, such as empathy, divergent thinking, and sketching, which can be applied to any professional or creative endeavor*

## Listed for UXers (and other roles)

> Empathy, team player
> Solution driven, delivery focus
> People, relationships
> Passion, energy
> Communication, listening
> Creativity
> Technology understanding

## Common for UXers

> Sketching
> Storytelling
> Critiquing
> Presenting
> Facilitating

https://medium.com/amplify-design/shapes-of-ux-designer-ad047bddac7f

https://articles.uie.com/indispensable_skills/

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# UXers have LOTS of methods for understanding human behavior, plus synthesizing, communicating & getting buy-in

- Personas & customer journeys are "popular" ones
  - Often being taught & done poorly, outdated
- Qualitative & quantitative user research
- Attitudes vs. behaviors
- Design workshops & visualizations
- Invest in design → Less need for training

# Managing food industry organizations is big business.
## It depends on business models, culture, and more.

Managing customer and employee experiences is big business. It depends on business models, culture, and more.
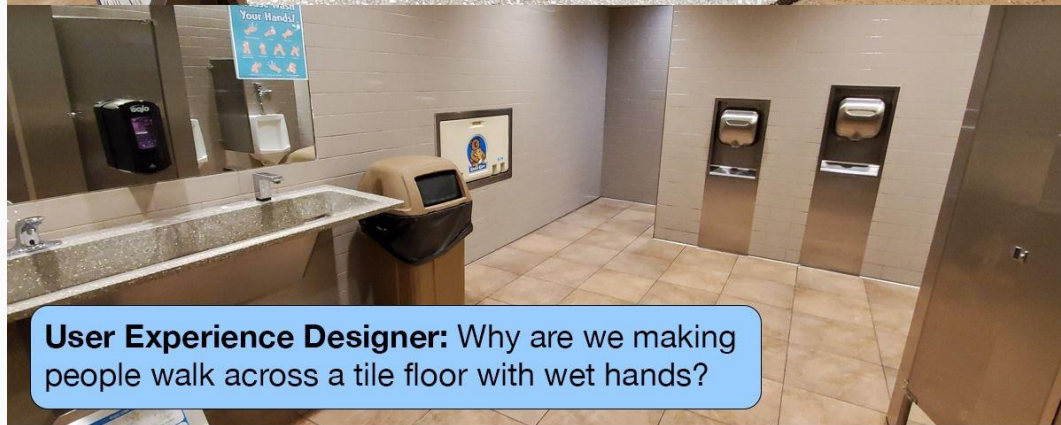
# UX as Team

*A team (made up of various roles) that defines, designs, and delivers solutions for customers, employees, business partners, citizens, and other groups of people*

**Common roles on a UX team**

> Visual designer
> User interface designer
> Interaction designer
> Product designer
> Experience designer
> Information architect
> Content strategist
> User researcher
> Experience architect
> Prototype developer
> Usability specialist
> Accessibility specialist
> Design system manager
> Project manager
> Manager

**Other team names**

> Design
> Product design
> Service design
> Digital design
> Experience design
> Customer experience
> Employee experience
> Experience strategy
> <Business unit> design (if distributed)
> Usability
> DesignOps
> ResearchOps

**Common "owners of UX" & "homes for UX teams"**

> CEO, CTO, CIO, CMO, CDO, CXO
> Vice President, Director, Manager
> Engineering
> Product
> IT
> Marketing
> HR
> Innovation
> Customer service
> Communications
> <Business unit>

| Interest | Physical World | Digital World | Role, Job Title |
|---|---|---|---|
| Builder | Wheelchair ramps, birdhouses | Applications, websites | Software engineer |
| Artist | Posters, paintings | Screens, animations | Visual designer |
| Tinkerer | Legos, Rube Goldberg machines | User interface design systems, front-end coding | Interaction designer & developer |
| Organizer | Sort books, re-arrange kitchen | Content management, tagging | Information architect |
| Writer | Fictional storyteller, journalist | Website editor, technical writer | UX writer |
| Listener | Therapist, "good friend" | User interviews, field studies | User researcher |
| Scientist | Biology experiments, science fairs | A/B tests, usability evaluations | Usability specialist |
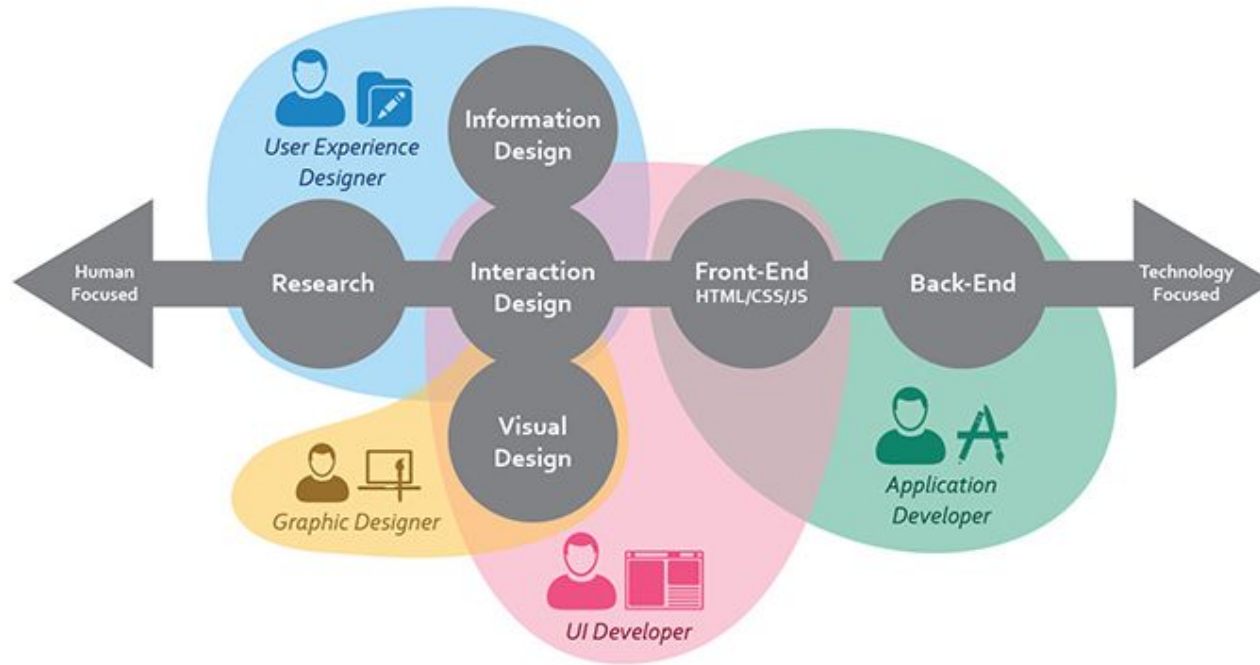
Mapping roles to responsibilities on a team
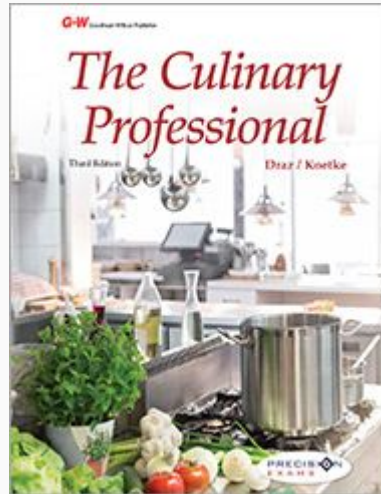
# UX as an organizational capability:

If you want to build an empire, own UX

If you want to change the organization, democratize UX

It depends on your organizational culture, design maturity, ...

# There are many paths to being a culinary professional.
## You can learn on the job, study on your own, or get a degree.





The Culinary Professional



Culinary Arts Program, AAS

# There are many paths to being a UX professional.
# You can learn on the job, study on your own, or get a degree.

**Classes at BGSU**

- TAAE > VCT > VCT 3500 - User Experience
- A&S (Arts) > Design > GDSN 3055 - User Experience/User Interface Design
- A&S (Science) > Computer Science > CS 3240 - Usability Engineering

- TAAE > Systems Engineering > SYE 3020 - Workplace Design [ergonomics]
- Business > Applied Business Experience (BizX) [design thinking]
- A&S (Science) > Psychology > PSYC 3330 - Cognitive Neuroscience

# Dimensions of UX Communities

**UX Professionals**
**Knowledge, Ethics, Academia**

**UX Practitioners**
**Jobs, Conferences, Mentoring**

**UX Aficionados**
**Awareness, Meetups, Related careers**

**Credentials**

**Competency**

**Curiosity**

**Local** ⟷ **Global**

Foci:
UX
Design
Research
Business
Technology
Content / Info

# What should you study to be good at UX?

- **45% Cognitive Psychology**
- **32% Human-Computer Interaction**
- **13% Graphic & Visual Communication Design**
- **4% Rhetoric & Writing**
- **3% Business Management**
- **2% Library & Information Science**
- **2% Criminal Justice**

**From UX Australia keynote**

# UX is multi-disciplinary
# Good: Rapid evolution, broad & deep
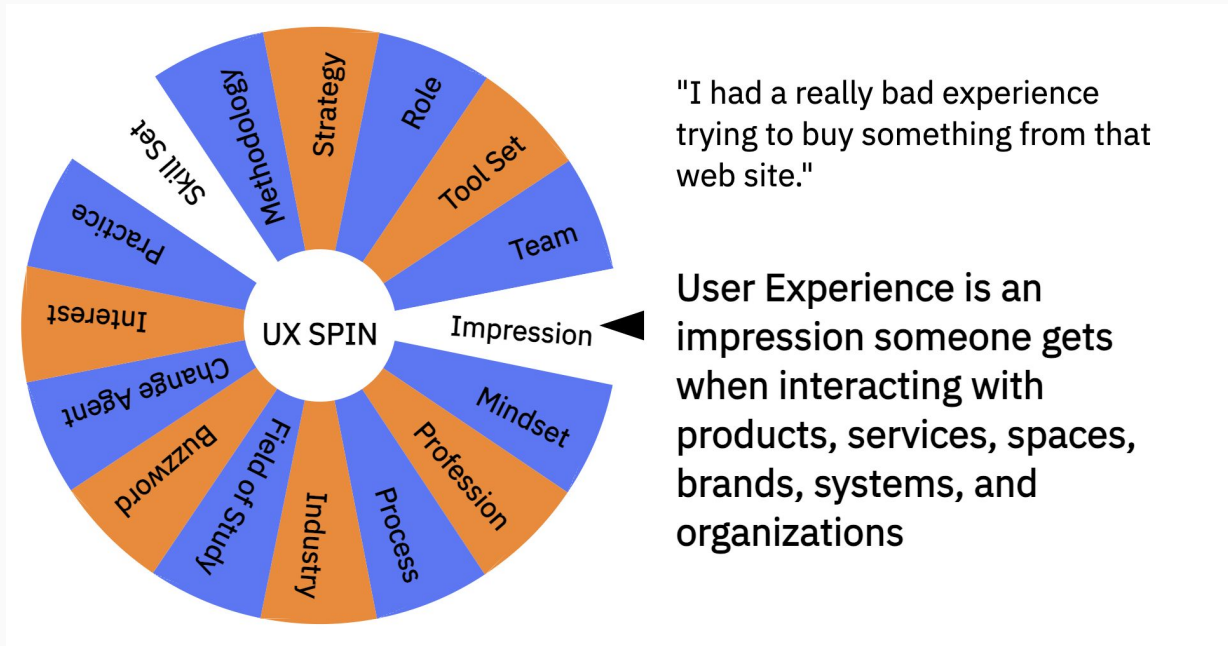# Bad: Fractured
# Ugly: Getting 1st job in UX

- Core (1980s) from CS + Psychology (Human-computer interaction)
  - Information Science (1999), Graphic Design (2003)
  - Humanities, Business, Industrial design, …
- Growing pains (accelerated by generative AI)
  - Qualifications vs. Inclusion
  - Art vs. Science
  - Business vs. Social

# More about My UX Framework
## https://spin.dexterityux.com/



"I had a really bad experience trying to buy something from that web site."

User Experience is an impression someone gets when interacting with products, services, spaces, brands, systems, and organizations

| | Textbook Chapters |
|---|---|
| Everybody uses technology. People have user experiences. | THEORY & SCIENCE<br>Chapters 3, 4, 5, 6 |
| User-centered design skills can be learned. Defining, designing and delivering good experiences is part art and part science. | DESIGN PROCESS<br>Chapters 2, 7, 12<br><br>USER RESEARCH<br>Chapters 8, 9<br><br>EVALUATION<br>Chapters 14, 15, 16 |
| Managing customer and employee experiences is big business. It depends on business models, culture, and more. | USER RESEARCH<br>Chapter 10<br><br>SOFTWARE DEVELOPMENT<br>Chapters 11, 13, 15 |
| There are many paths to being a UX professional. You can learn on the job, study on your own, or get a degree. | INTRO TO DISCIPLINE<br>Chapter 1 |

# dexterity

## Dexterity User Experience LLC™

**Keith Instone**
Founder

instone@dexterityux.com
419.569.1217

dexterityux.com