

2.S97 ITERATIVE INTERACTION DESIGN

Course Intro Foamcore

January 12, 2015

Teaching Team



Instructor

Tiffany Tseng

MAS PhD 2016

BSME 2009



Faculty Supervisor

Maria Yang

Professor

Mechanical Engineering

Teaching Team



TA

Cole Houston

Senior | 2A (Product)



TA

Stephen Rodan

Junior | 2A (Nuclear)

Teaching Team



Mentor

Connor Humber

Senior | 2



Mentor

Peter Godart

Senior | 2A (6-1)



Mentor

Kirsten Lim

Senior | 2

Students (You!)

15
26
16

Freshmen
Sophomores
Juniors
Seniors

Iterative Interaction Design



Exercise

With the person next to you, **write down 3 words** that describe what you think interaction design is

* You **cannot** use the words “interaction” or “design”

3 minutes

Iterative Interaction Design



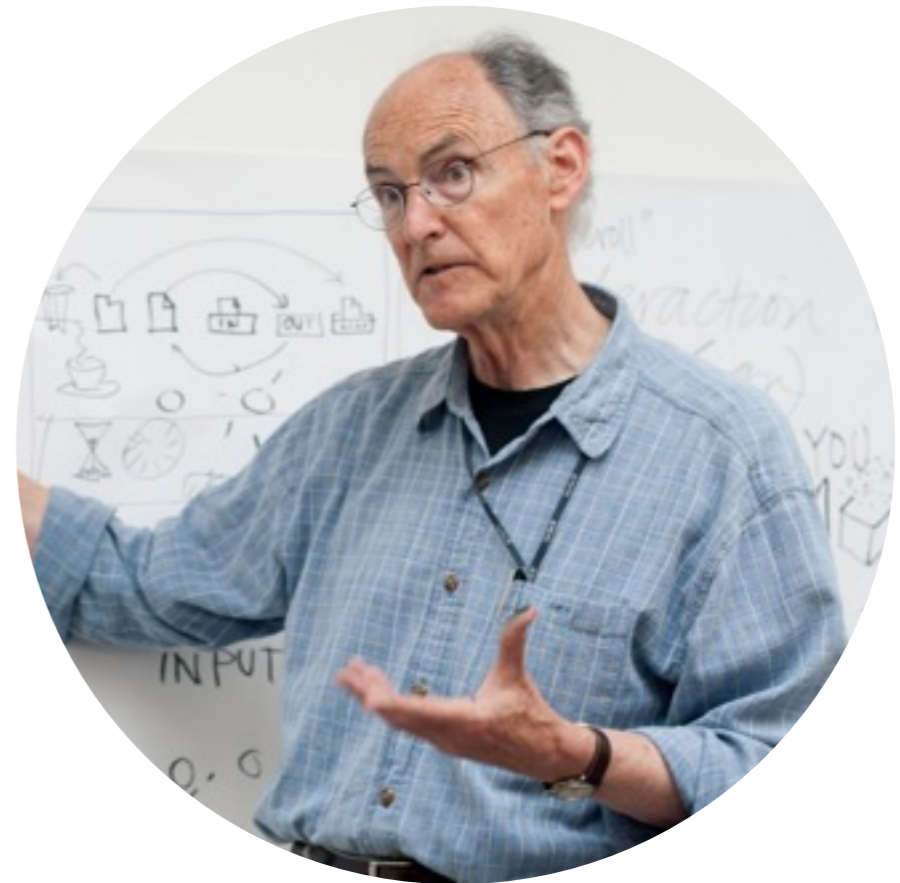
“Shaping our every day life through digital artifacts – for work, for play, for entertainment”

– Gillian Crampton Smith

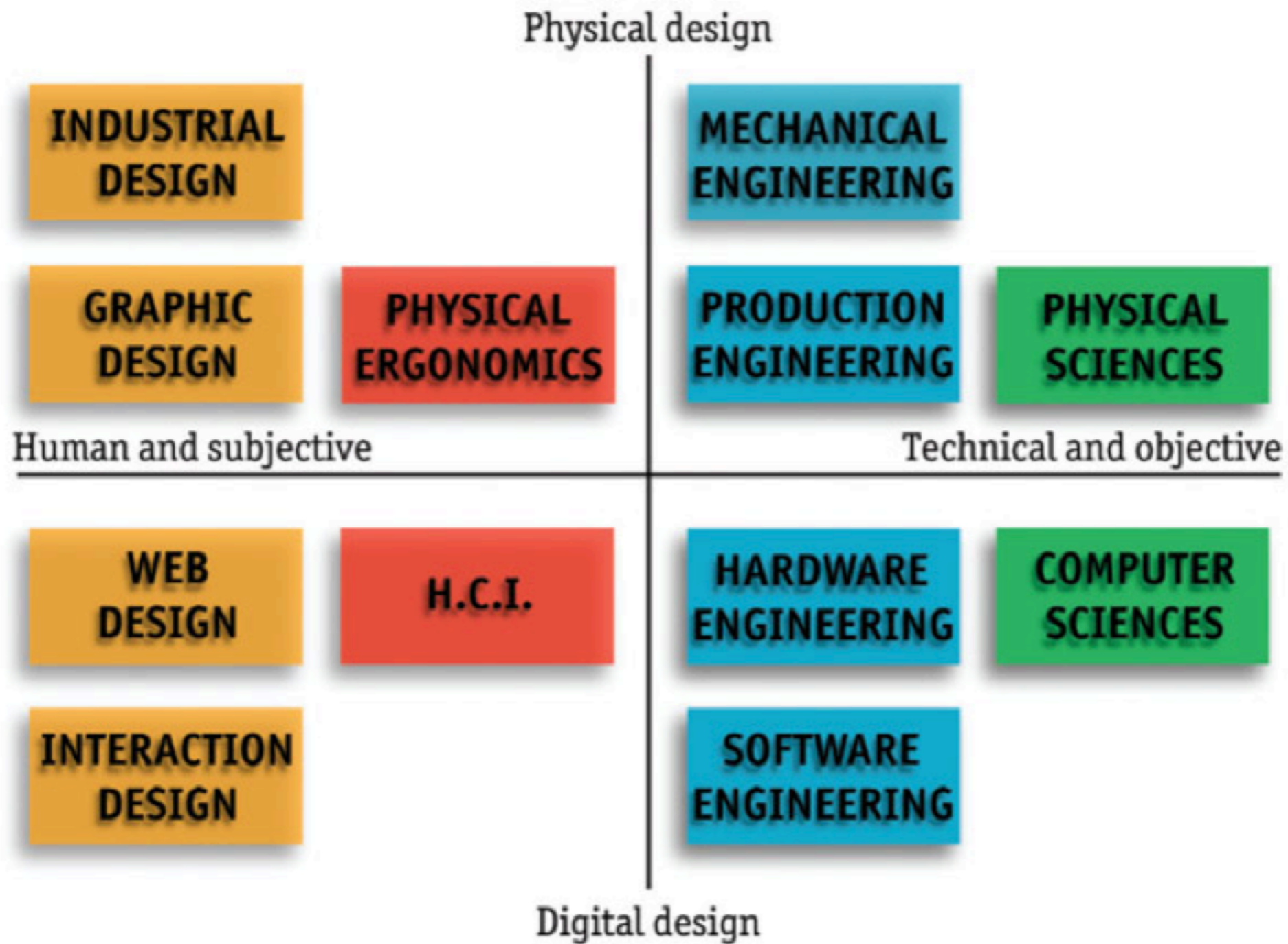
Iterative Interaction Design



Bill Moggridge



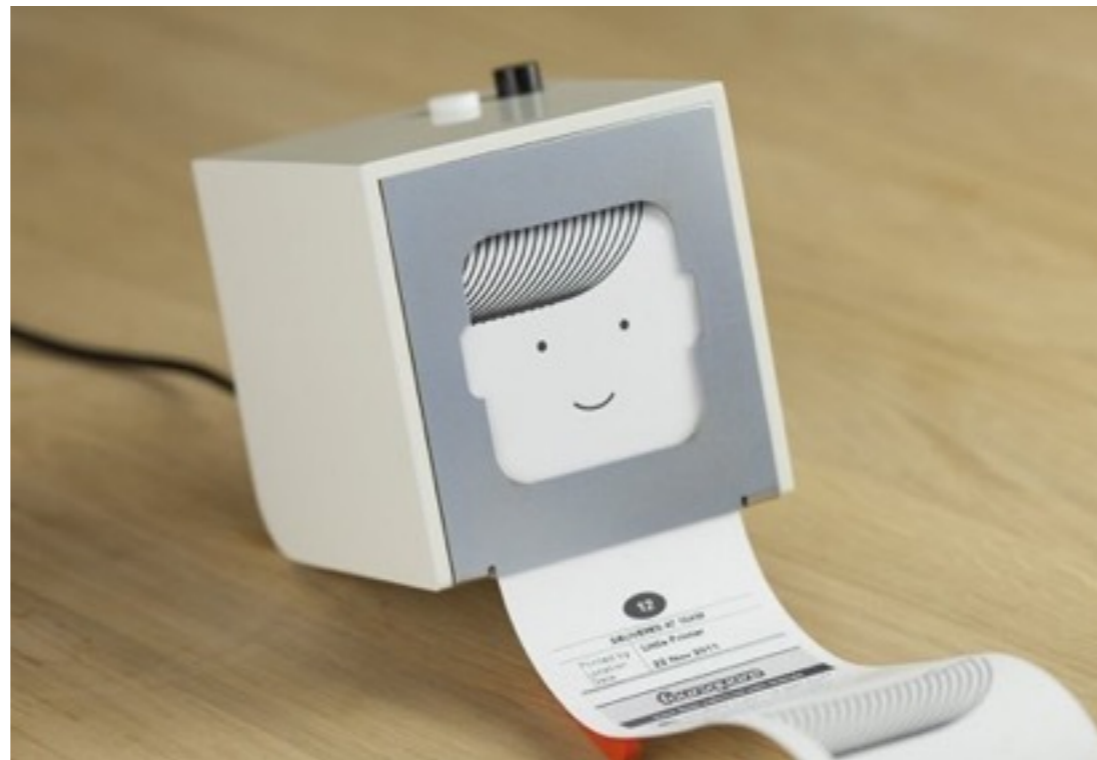
Bill Verplank



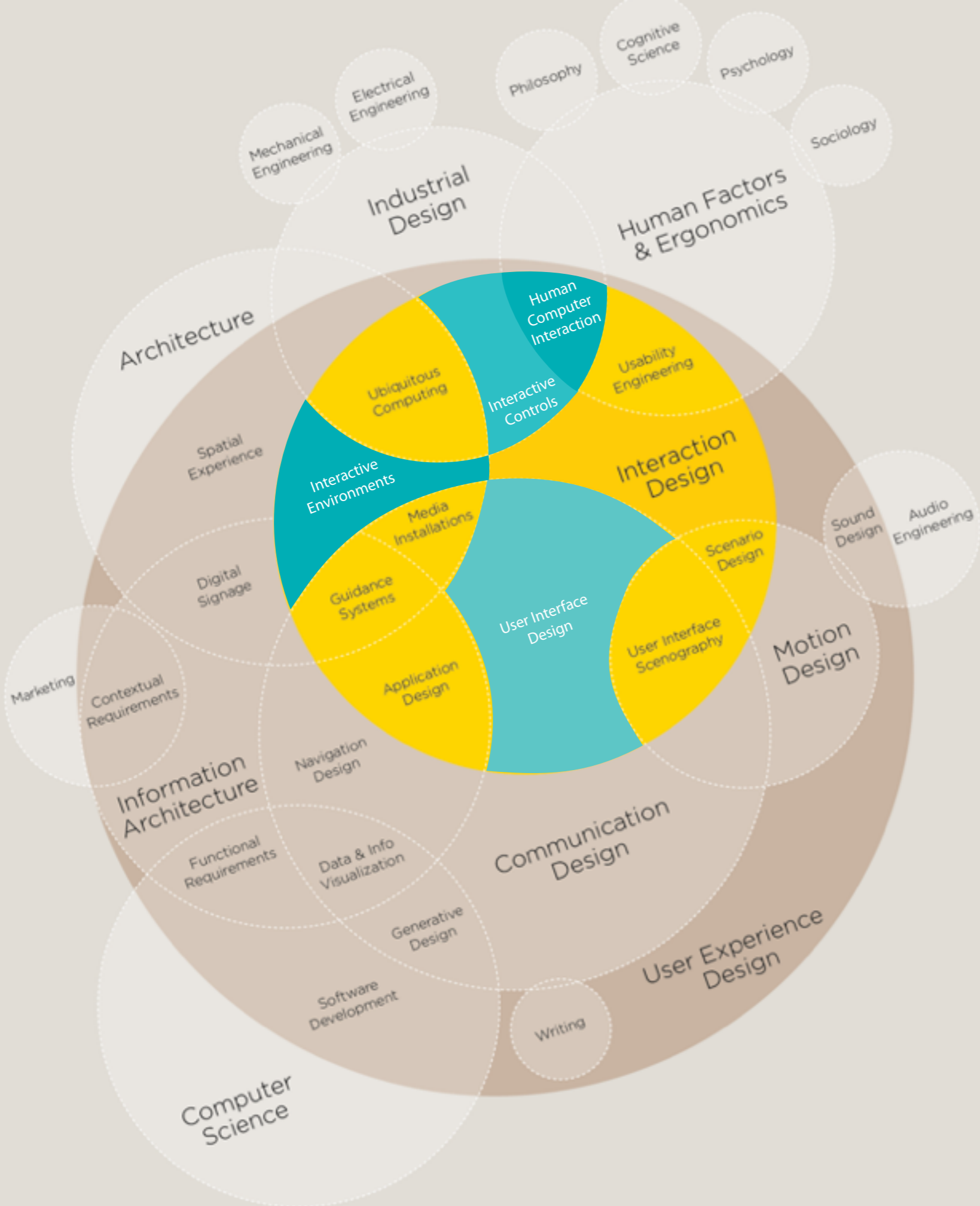


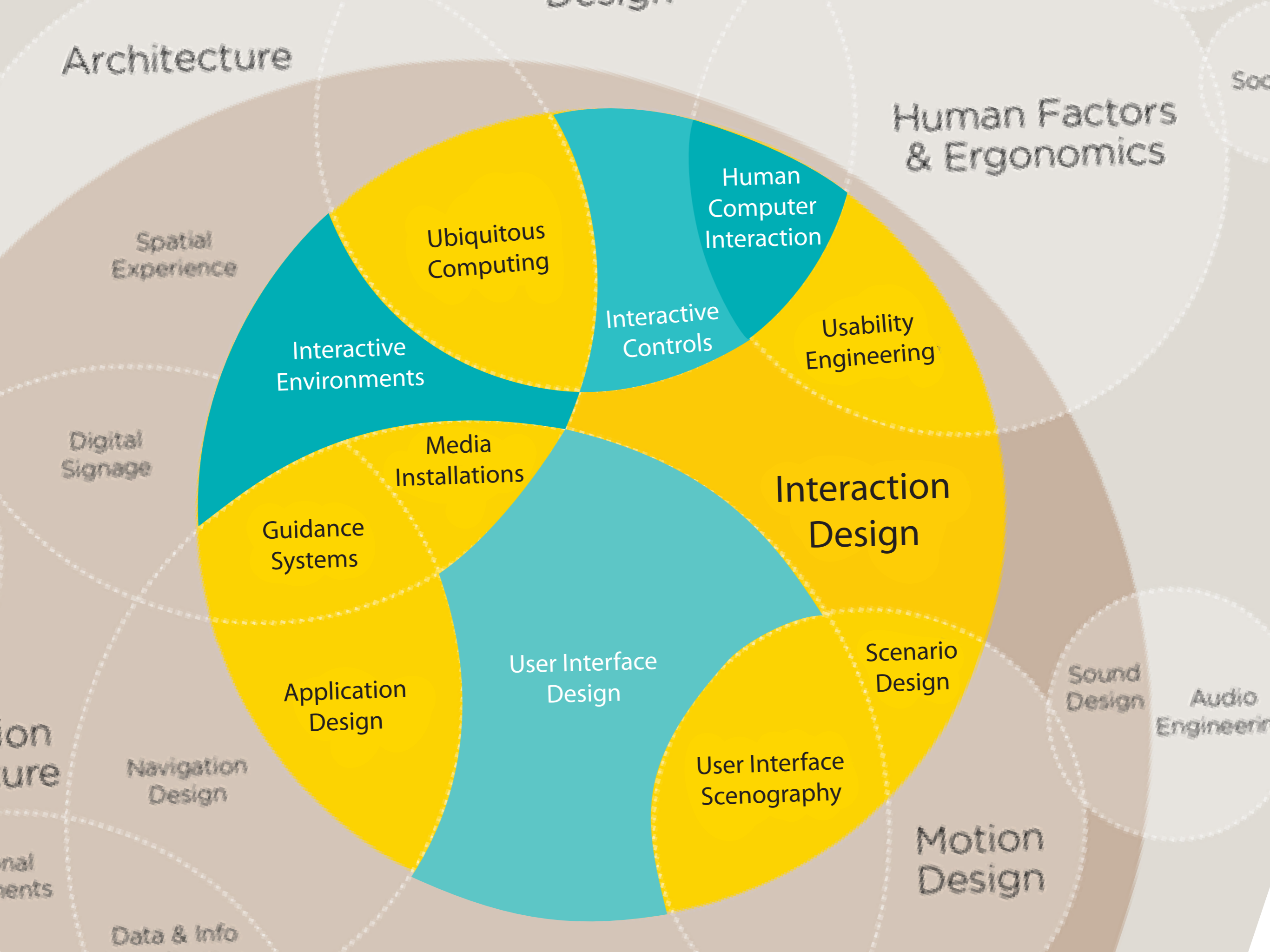
INTERACTION DESIGN











Architecture

Human Factors & Ergonomics

Spatial Experience

Ubiquitous Computing

Human Computer Interaction

Interactive Environments

Interactive Controls

Usability Engineering

Digital Signage

Media Installations

Interaction Design

Guidance Systems

Scenario Design

User Interface Design

Sound Design

Audio Engineering

Application Design

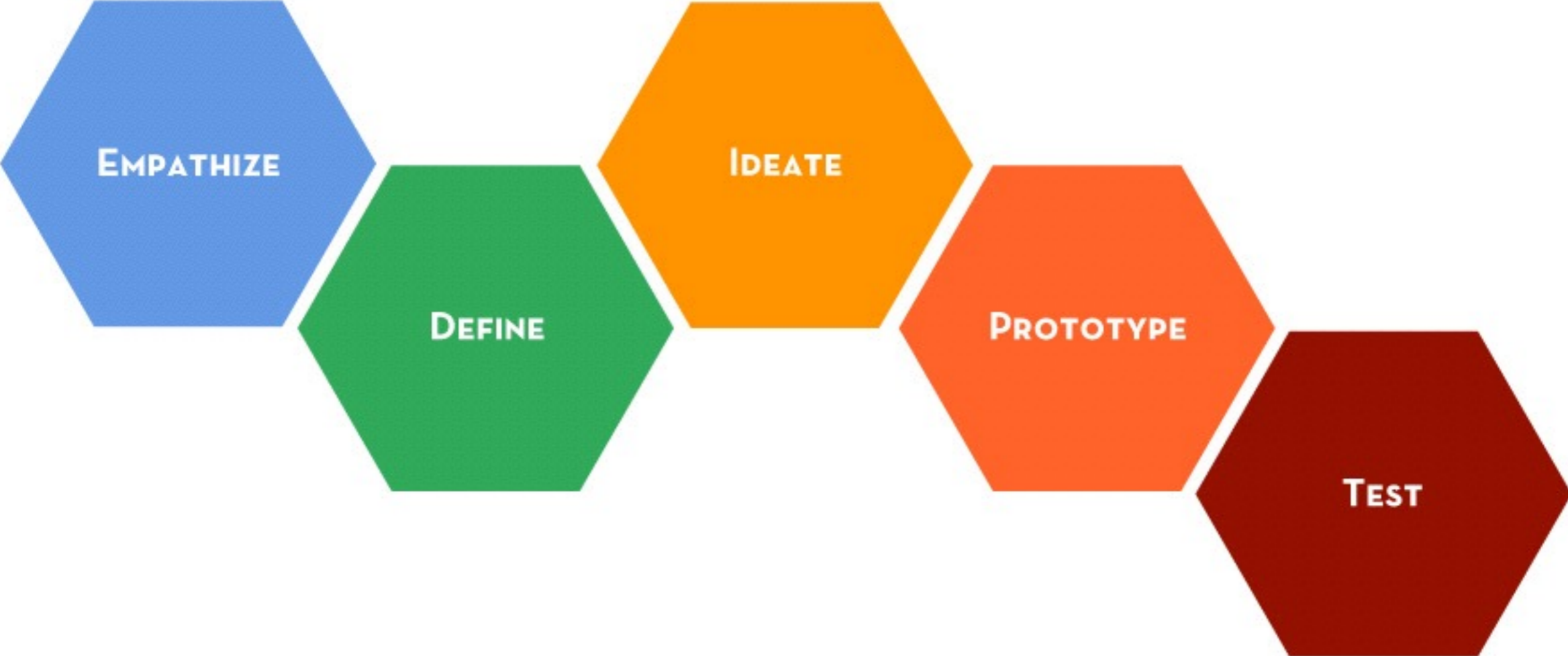
User Interface Scenography

Motion Design

Navigation Design

Data & Info

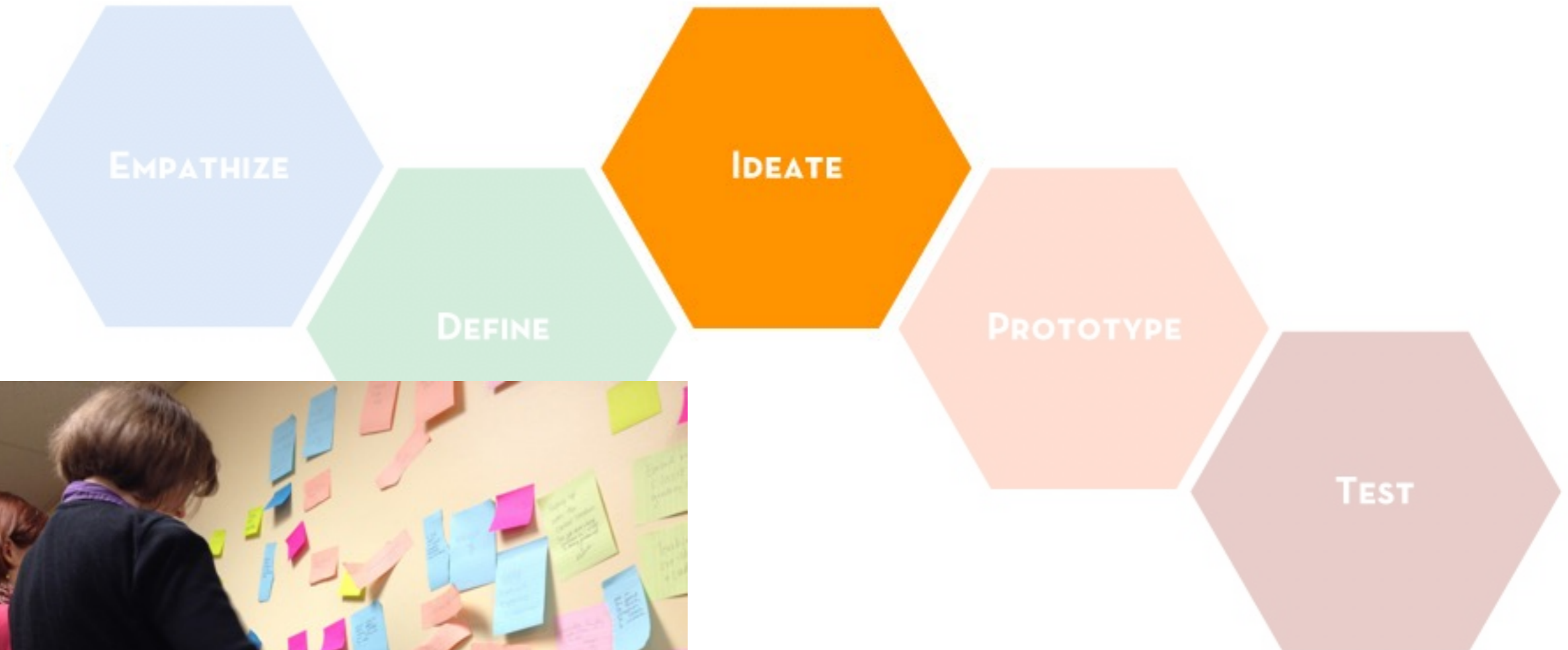
Iterative Interaction Design

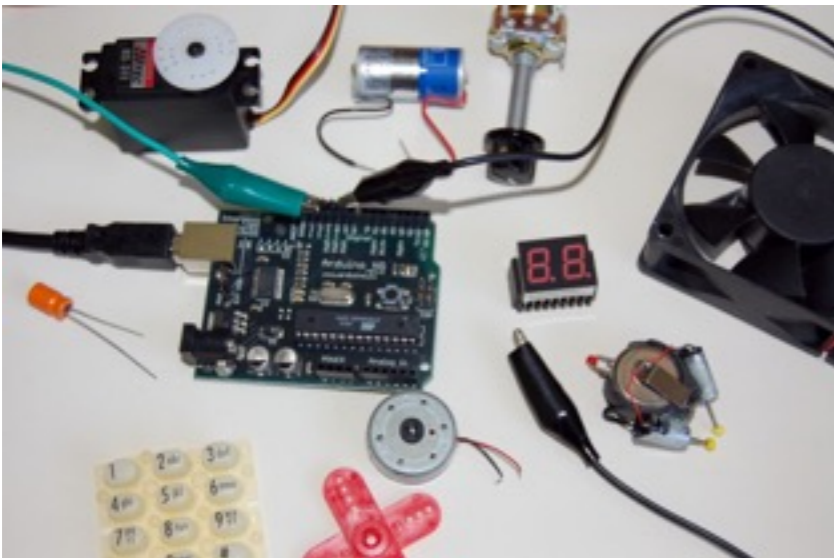


Needfinding

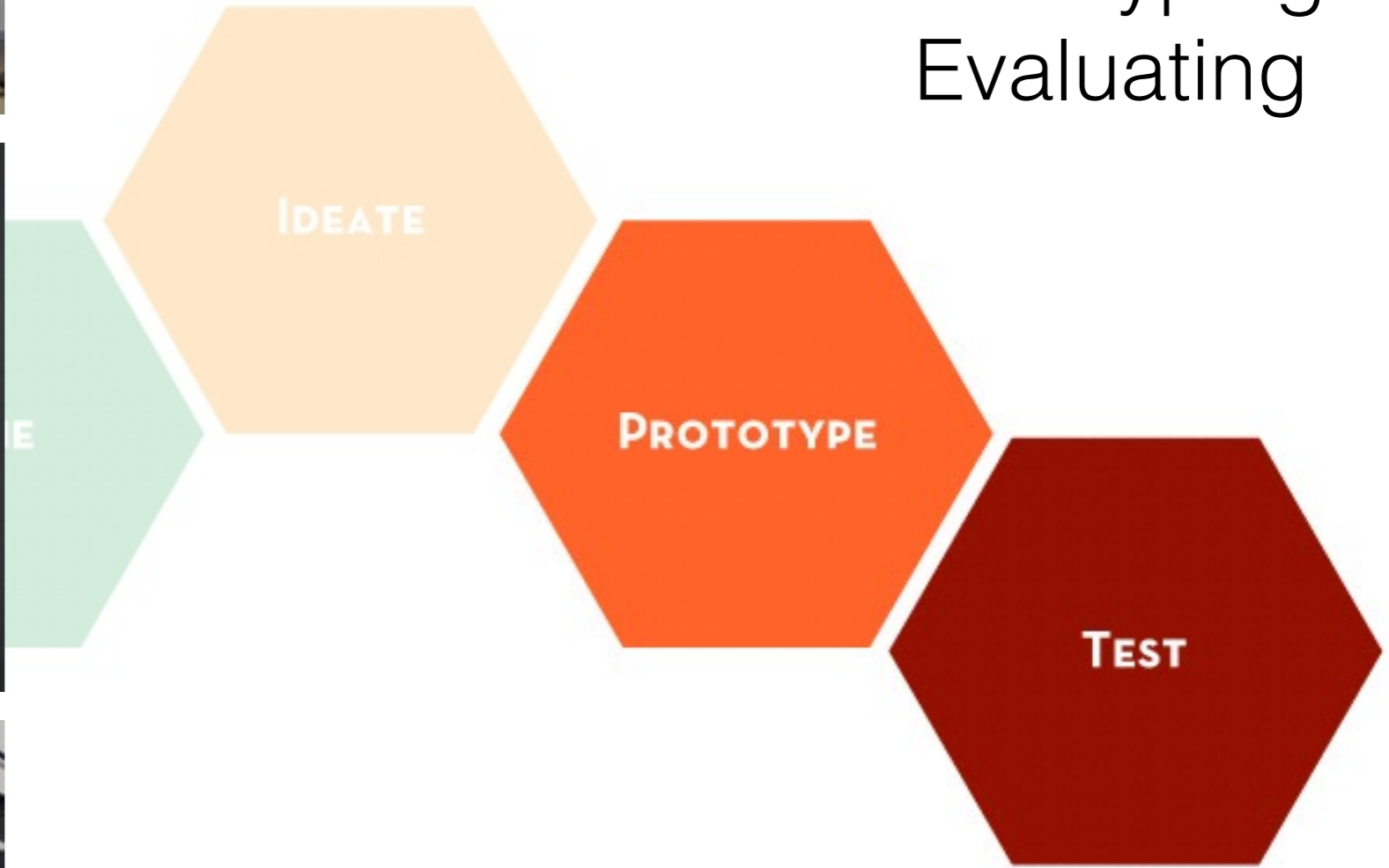


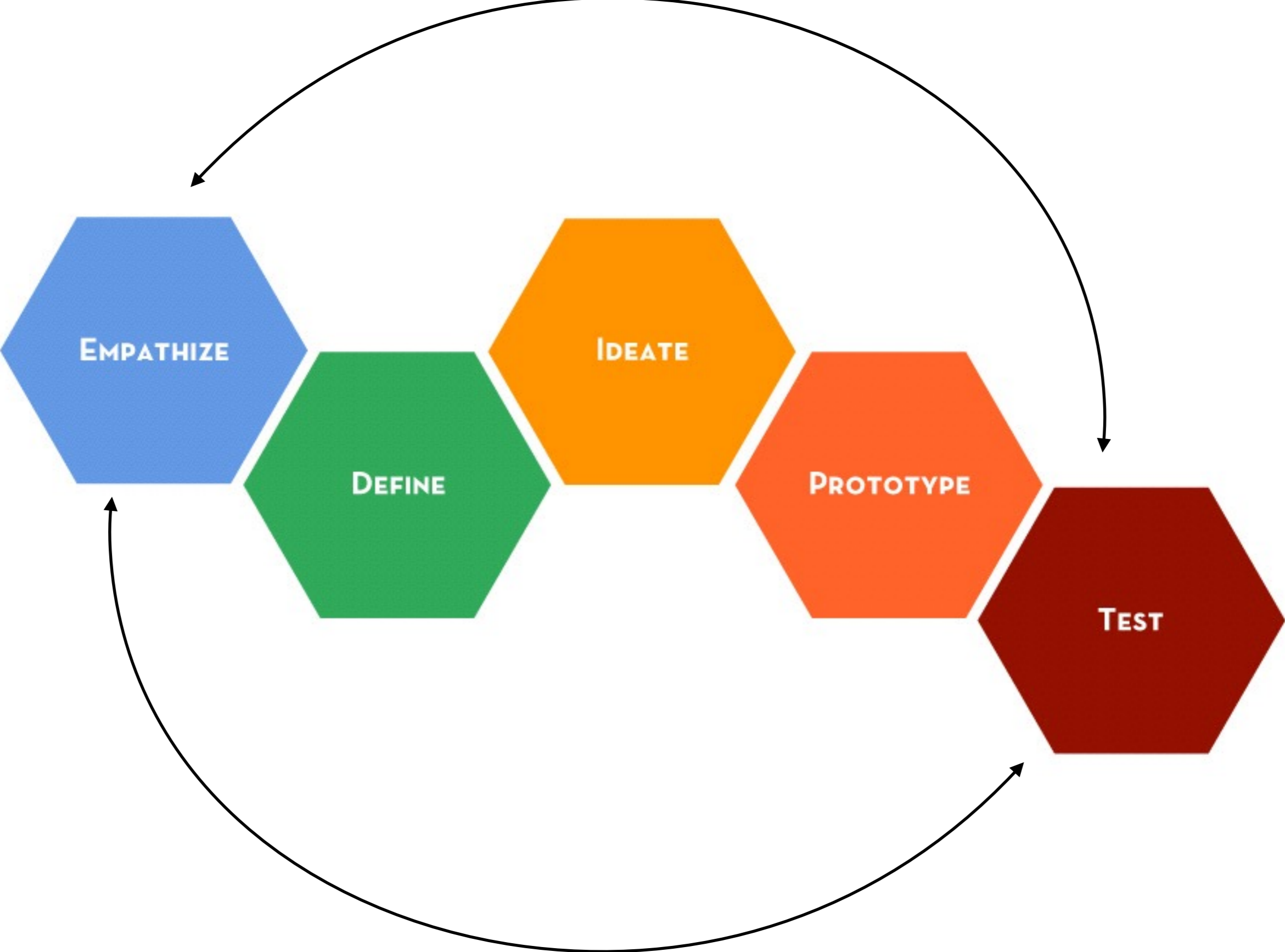
Brainstorming Concept Development





Prototyping
Evaluating





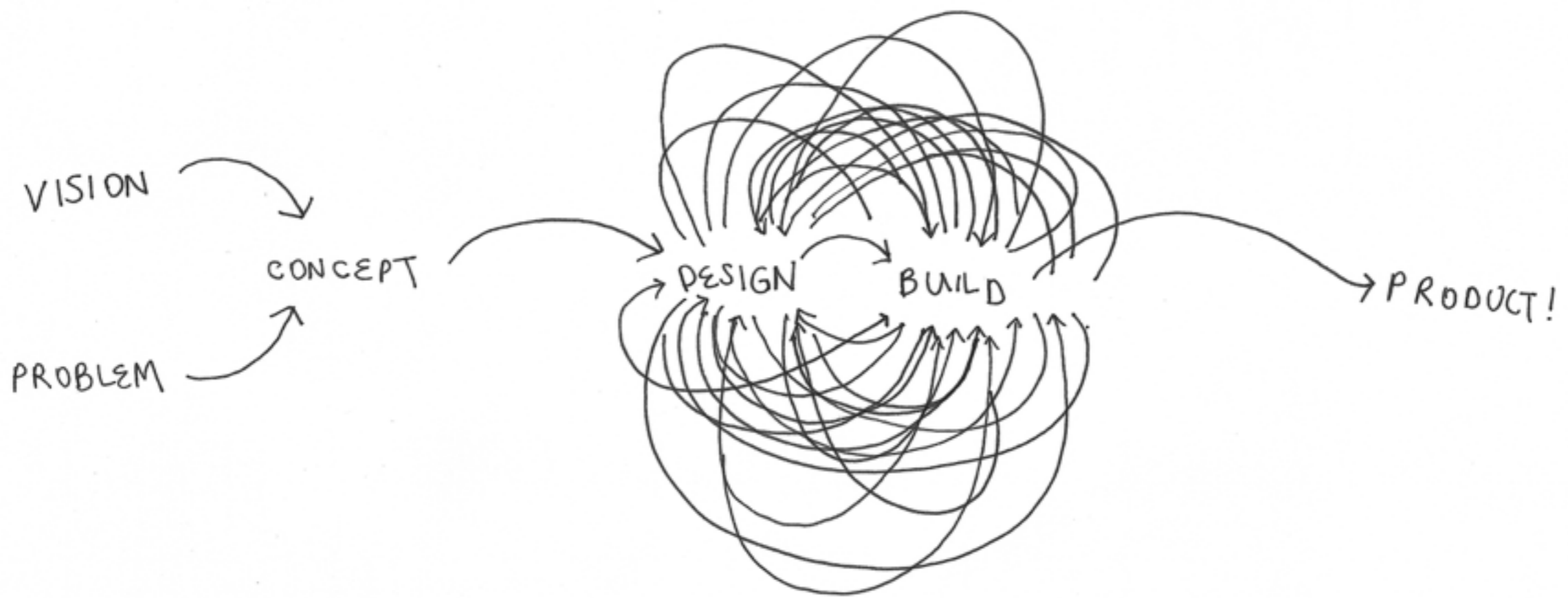
EMPATHIZE

DEFINE

IDEATE

PROTOTYPE

TEST



Iterative Design Exercise!

...but first

Teams

Apple Pie

Meghna Saxena
Christina Sung
Tomohiro Maeda



Dulce de Leche

Matthew Orton
Diego Huyke
Aya Suzuki



Banana Split

Steve Holcomb
Jessica Qian
Siena Scigliuto



Eclair

Anthony Mark
Valkyrie Felso
Andrea Meister



Creme Brulee

Shruthi Narayanan
Mark Choulakone
Ana Lo



Meet & Greet

- 1) Introduce yourselves (Major, Year, Hometown)
- 2) Say what you want to get out of the class
- 3) Find one thing all 3 of you have in common (*not* related to MIT)
- 4) Exchange contact information (phone number, email)

5 minutes

Iterative Design Exercise

Build a tower to hold your team's ball at a minimum height with the following materials:



Your team should keep track of:

- the amount of materials you're using
- the number of times you test your design

Iterative Design Exercise

Tennis Balls	50 cm	20"
Football	40 cm	16"
Soccer Ball	35 cm	14"
Medicine Ball	25 cm	10"

Ball Selection

15:00

Share

- 1) What did you build?
- 2) How many times did you test?
- 3) What materials did you use?

Redesign!

Redesign

Using some of the ideas shared by your classmates, iterate on your tower to improve it (make it taller or use less material)

5:00

Share V2

Did any tips from other teams help your design?

Any other reflections?

“All design is redesign.”

“Good artists copy, great artists steal.”

“Fail early, often, and cheaply”

Course Content

needfinding
ideation
concept selection
storyboarding
prototyping
testing
iterating

foamcore prototyping
arduino + electronics
CAD
digital fabrication
processing +
digital interfaces

Course Overview

Lectures & Labs

35-308

PDL (35-307)

10:00 - 1:00 M-F

14 classes (no class on Monday 1/19)

Open Shop Hours

6:00 - 8:00 PM TWTH in PDL

Extra lab hours added as needed

Schedule on course website

<http://web.mit.edu/ideation/2.S97/>

Grading

6 Units Graded A-F

attendance

must attend all classes!
participation

assignments

project + documentation
complete on time
showcase skills learned from lecture

teamwork

work well with teammates
equally distribute work

“If it isn’t documented, it didn’t happen”

Build in Progress

[Tips](#)[Create a Project](#)

Build in Progress lets you share what you build as you build it.



Process Products by [scientific](#)

Process Products is a concept about representing design process on digitally fabricated objects. I'll be presenting about it at TEI 2015 and recruited a friend to help me with demoing the concept!



Community Activity

Recent Question

"I think I'll look for some sort of hollow bolt. Anybody have any exper..."

from [Color Lamp](#)

Build in Progress News

[View All](#)

Sharing Projects on Facebook, Google+, and more

New project sharing feature



iOS App Update - Video Features

Upload and play videos through the iOS app!

Your Activity Feed

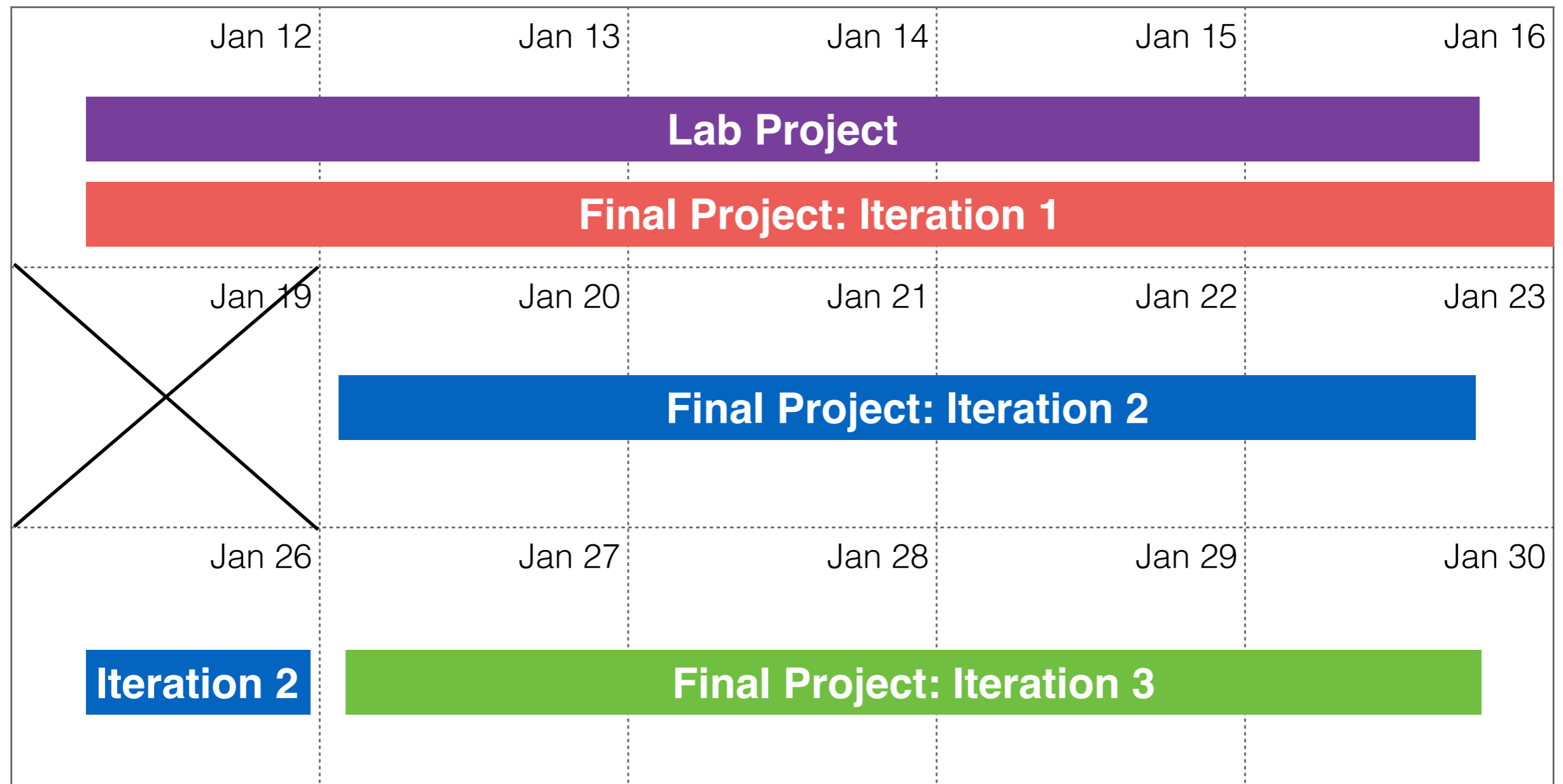
[View All](#)

Major Assignments

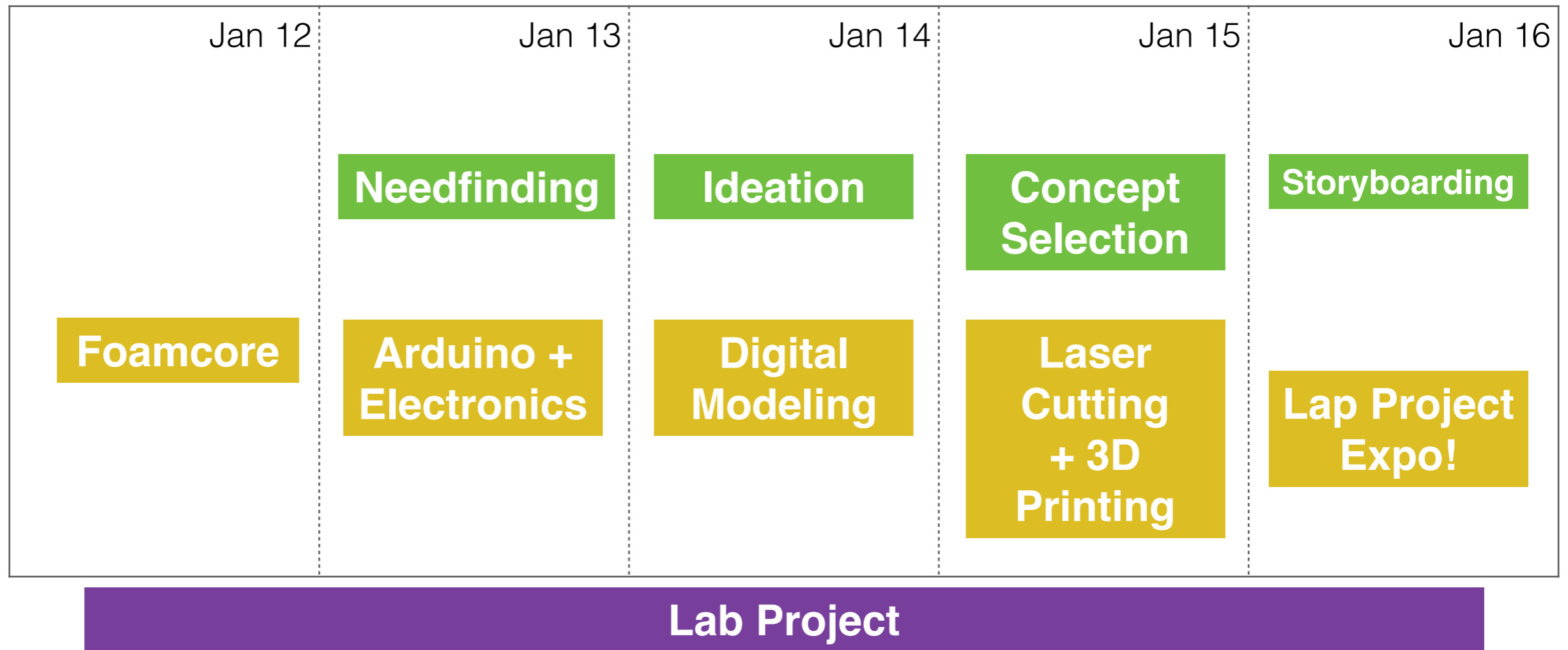
1. Lab Project (LP): Week 1
2. Final project (FP): Week 1 - 3 *
 - a. Iteration 1: 3 Storyboarded Concepts
 - b. Iteration 2: 2 Prototypes
 - c. Iteration 3: 1 Final Design

* Theme announcement tomorrow!

Major Assignments



Week 1





Lab Project: Kids' Party Games



Pick an element of your team's assigned kids' party game to prototype using a combination of foamcore parts, Arduino + electronics, laser cut parts, and 3D-printed parts

Lab Project: Kids' Party Games



Crocodile Dentist

Apple Pie

Meghna Saxena
Christina Sung
Tomohiro Maeda



Hungry Hungry Hippos

Banana Split

Steve Holcomb
Jessica Qian
Siena Scigiluto

Lab Project: Kids' Party Games



Elefun

Creme Brule

Shruthi Narayanan
Mark Choulakone
Ana Lo



Let's go Fishing

Dulce de Leches

Matthew Orton
Diego Huyke
Aya Suzuki



Operation

Eclair

Anthony Mark
Valkyrie Felso
Andrea Meister

Lab Project: Kids' Party Games

ASSIGNMENT

Pick an element of your team's assigned kids' party game to prototype using a combination of:

- Foamcore parts
- Arduino + electronics
- Laser cut parts
- 3D printed parts

DELIVERABLES

- Project plan (Tuesday)
- Demo-able physical prototype (Friday)
- Documentation of project on Build in Progress (Friday)

Due Tomorrow

Lab Project

Create a project page on BiP for your LP, with all team members added as collaborators

Post a project plan, which should include the following:

- a description of the element of the game you plan to prototype
- a sketch of what the prototype might look like

(This plan should be updated throughout the week)

Download Arduino IDE

Foamcore!