Questions?

- Homework #2 is out
- Homeworks #2 and #3 due date delayed one class

The IDEO Design Process
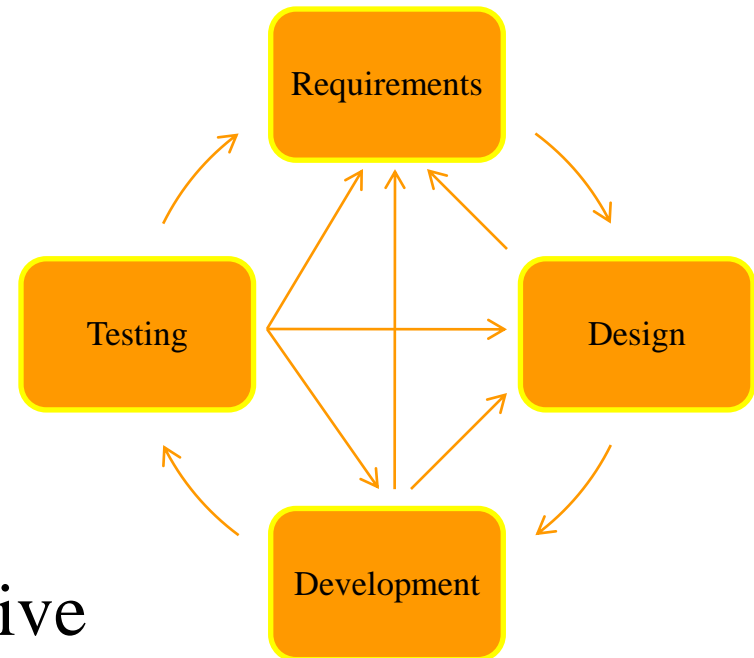
Understand

Observe

Implementation

Design Process

Visualize and Predict
(Ideate)

Evaluate and Refine
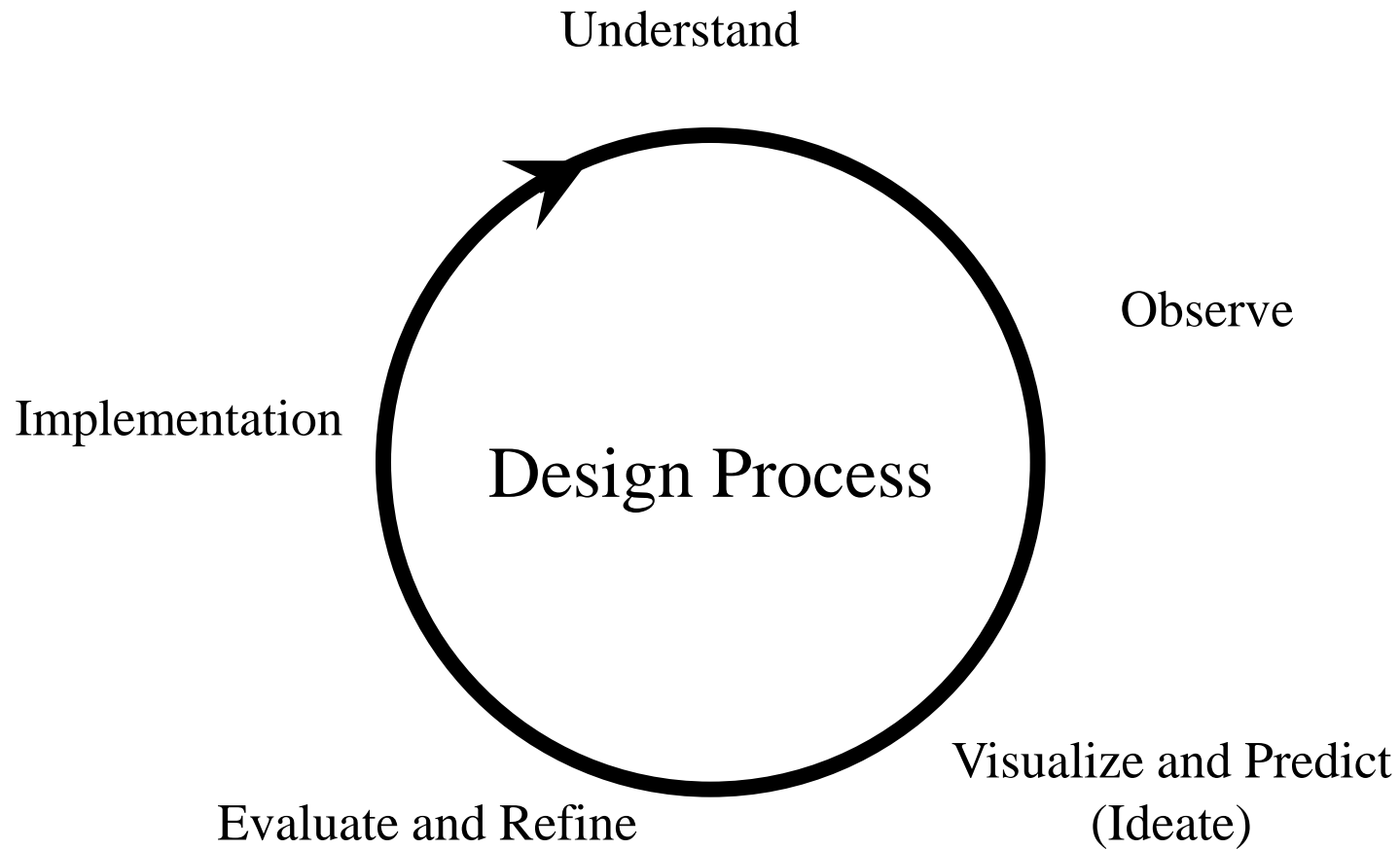
David Kelley TED Talk

Lidwell's "Development Cycle"

- Requirements
- Design
- Development
- Testing

Linear
("waterfall")

Requirements

Testing

Design

Development
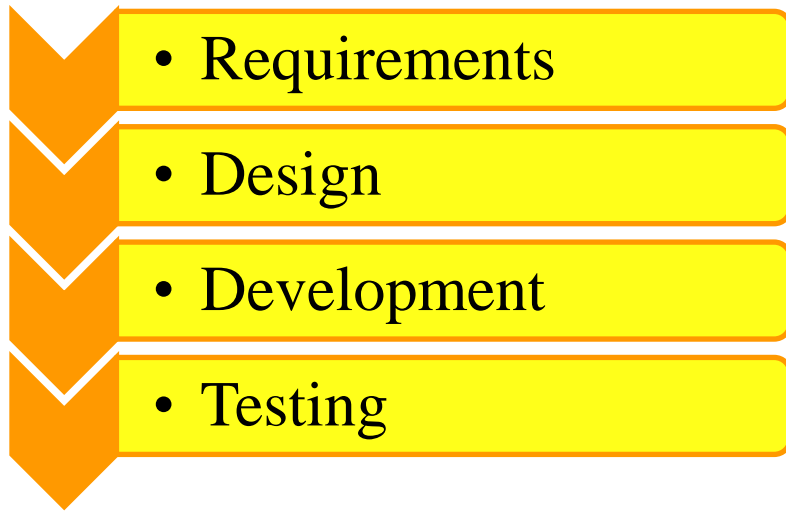
Iterative

Innovation – Hatton reading

- Answer the 5 questions on page 118.
    - Why are the strategies of discovery less easily codified than the rules of scientific proof?
- What are the differences between the discovery and the validation process? Are both equally methodical?
- What does Albert Szent Gyorgyi mean by: "Discovery consists of seeing what everybody has seen and thinking what nobody has thought"?
- What is the role of failure in the discovery process? Should a failure be seen as a negative or a positive part of the discovery process? Explain your answer.
- What does it mean to set the stage for discovery? How could you change you everyday routine to enhance your chance of making a discovery?
- What is the role of playfulness in the discovery process? How a playful mind might help seeing what others have not seen?
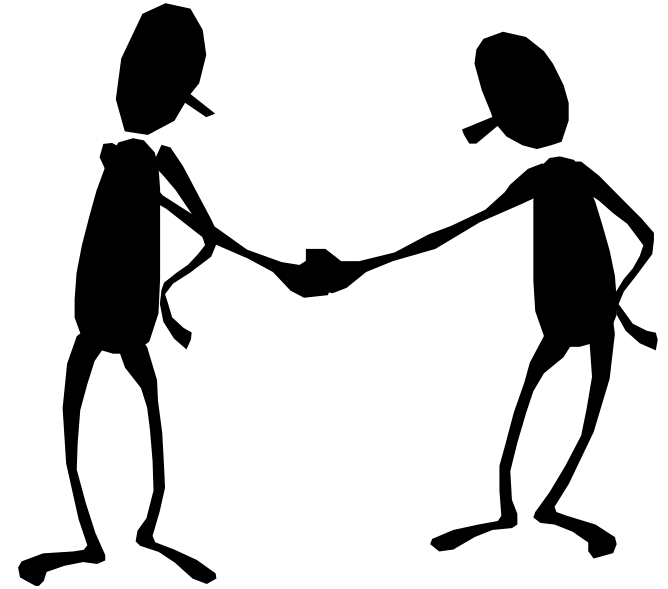
System Centered Design

- What can be built easily on this platform?

- What can I create from the available tools?

- What do I as a programmer find interesting to work on?

User Centered Design

- Design is based upon a user's
  - Abilities and real needs
  - Context
  - Work
  - Tasks

Golden rule of interface design:

"Know The User"

User Centered Design

- ... is based on understanding the domain of work or play in which people are engaged and in which they interact with computers, and programming computers to facilitate human action. ...

- Three assumptions
  - The result of a good design is a *satisfied customer*
  - The process of design is a *collaboration between designers and customers*. The *design evolves and adapts* to their changing concerns, and the process produces a specification as an important byproduct
  - The customer and designer are in *constant communication* during the entire process

Denning and Dargan, 196

Designer Centered Design

- The experts know best
- Users can't see past what they know

Brainstorming

"The best way to get a good idea is to get a lot of ideas"

- Seed the brainstorm
    - Topic statement
- Get physical
- Follow the rules (IDEO)
    - Stay focused
    - One conversation at a time
    - Encourage wild ideas
    - Defer judgment
    - Build upon idea from others
- Number your ideas
- Target:
    - 100 ideas per hour
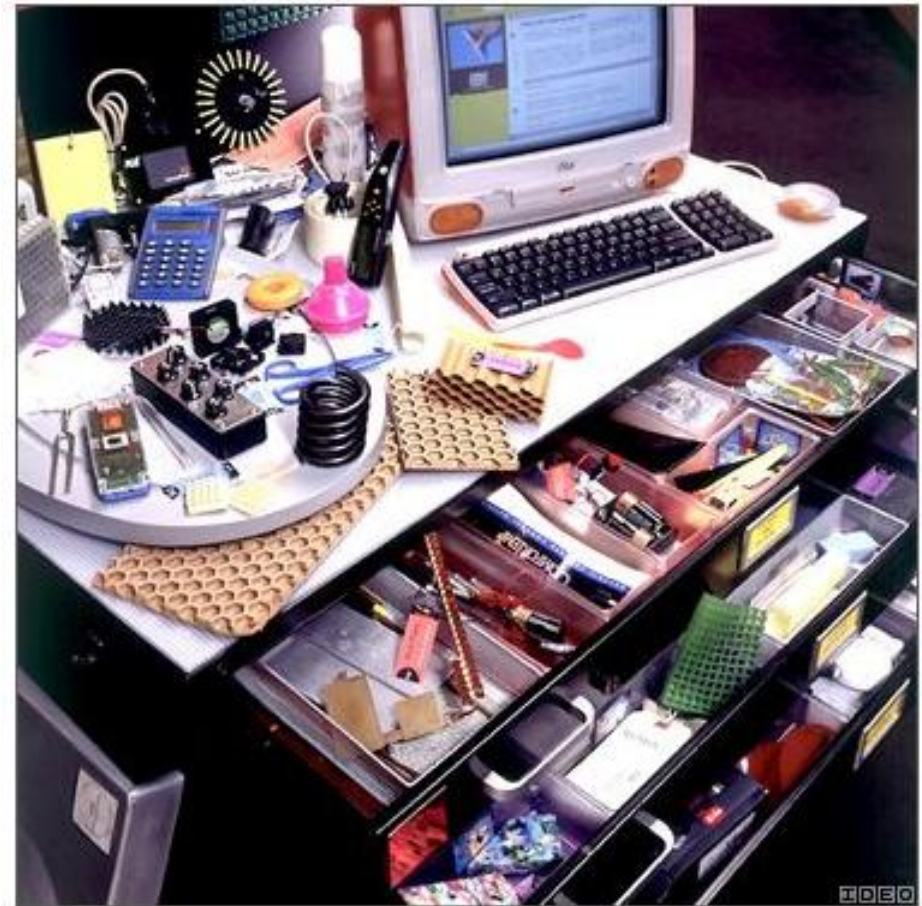
Brainstorming

"How can we reduce the time users spend waiting for their computer?"

ENCOURAGE WILD IDEAS

Go for quantity

Be visual