

# Human Abilities 3

---

How do people think?

Universal Design



# Overview

## I. Senses

- A. Vision
- B. Hearing
- C. Touch
- D. Smell?

## II. Information processing

- A. Perceptual
- B. Cognitive
  - 1. Memory
    - a. Short term
    - b. Medium term
    - c. Long term
  - 2. Processes
    - a. Selective attention
    - b. Learning
    - c. Problem solving
    - d. Language
- C. Motor system

## III. Motor system

## IV. Motivations

## V. Social Attachments

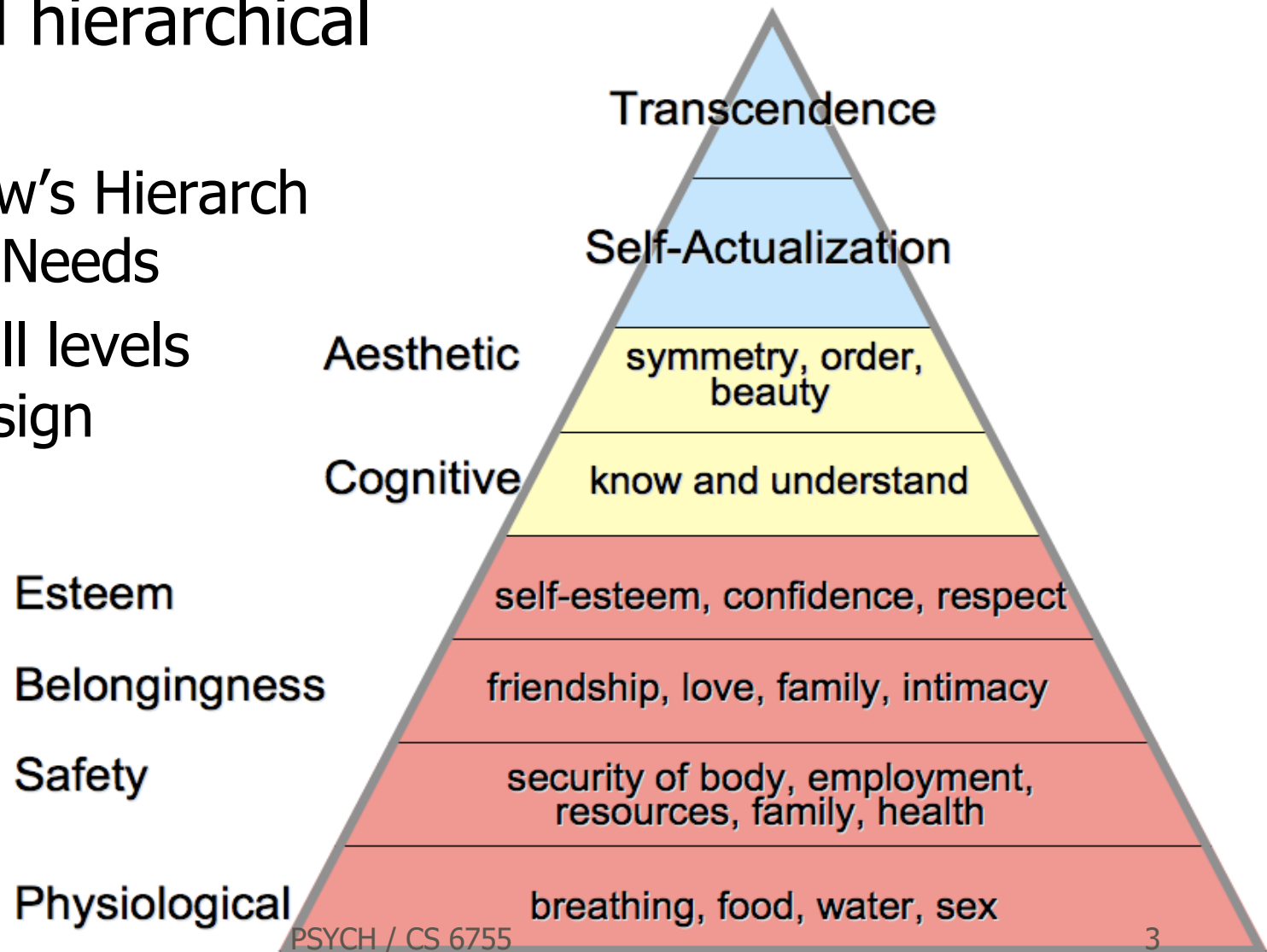
**TODAY**

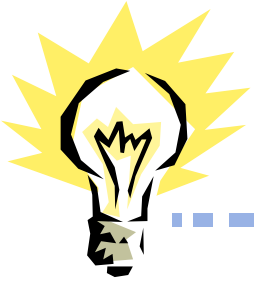


# IV. Motivations

## ➤ Various and hierarchical motivations

- ❖ e.g. Maslow's Hierarchy of Human Needs
- ❖ Consider all levels in your design

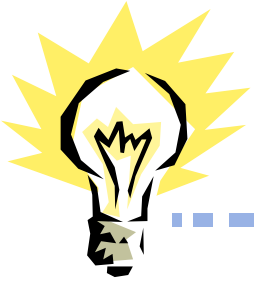




# V. Social Attachments

---

- Consider how humans form part of a group, society, club, culture, team, clique, family, peer group
- How does technology fit into the culture or social fabric?
- Understand the implications of this for design
  - ❖ Gold iPhone?
  - ❖ Dressing up Roombas? Cute Roboraptors!
  - ❖ Movie viewing at home vs. on a plane?
  - ❖ Need to remain connected at all times?
  - ❖ Changes to manners/etiquette... etc.



# Recap

## ➤ Know your user!

### I. Senses

- A. Vision
- B. Hearing
- C. Touch
- D. Smell?

### II. Information processing

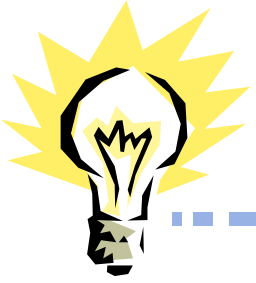
- A. Perceptual
- B. Cognitive
  - 1. Memory
    - a. Short-term
    - b. Medium-term
    - c. Long-term
  - 2. Attention
    - a. Selective attention
  - 3. Learning
  - 4. Problem solving
  - 5. Language
- C. Motor system

### III. Motor system

### IV. Motivations

### V. Social Attachments

**Design Implications?!**



# Assignments

---

➤ D1

❖ Questions?