- Explain what cognition is and why it is important for interaction design.
  - Cognition and specific kings of processes
    - Attention
    - perception
    - memory
    - learning
    - reading, speaking and listening
    - problem solving, planning, reasoning, and decision making
  - Fast/reflective Thinking
    - State of mind in which we perceive, act and react to events around us intuitively
  - Slow Thinking
    - mental effort, attention, judgement and decision making
  - pg 66-67 of text
- Discuss what attention is and its effects on our ability to multitask.
  - The process of selecting things to concentrate on at a point in time from the range of possibilities available
  - attention allows us to focus on information that is relevant to what we are doing.
  - Taken form box on page 70
    - Make information salient when it needs attending to at a given stage of a task
    - use techniques like animated graphics, color underlining, ordering of items, sequencing of different information and spacing of items to achieve this
    - Avoid cluttering the interface with too much information. This especially applies to the use of color, sound and graphics, it is tempting to use lots, resulting in a mishmash of media that is distracting and annoying rather than helping the user attend to relevant information.
    - Search engines and form fil-ins that have simple and clean interfaces are easier to use.
- Describe how memory can be enhanced through technology aids.
  - people are better at recognizing things than remembering them
  - Memory and Search pg 74
    - Recall-directed
      - using memorized information about the required content to get as close to it as possible
      - like knowing the URL of a website
    - recognition-based scanning
      - example: scanning a list and finding the desired content
  - example in book includes Pinterest and how data is stored on it
  - The book also goes into details like passwords on page 77
- Explain what mental models are.
  - Pages 86-66
  - Internal constructions of some aspect of the external world that are manipulated, enabling predictions and inferences to be made
  - Thermostat Homework was on this (also our last quiz)
- Try to elicit a mental models and be able to understand what it means.

After successful completion of this week, you will be able to:

- Provide an overview of the many different kinds of interfaces
-
  - The book and lectures go into detail about a lot of stuff, but it's mostly things that the class is dealing with in the design projects

- o
    - some of my thoughts
        - Mobile Devices
            - Hit area for touching the screen
            - small screen require change in looks
        - Simple appliances
            - Users want simplicity and visibility. Toasters and ovens don't need touch screens
        - How users interact with interfaces
            - How is window management?
            - Is the screen cluttered?
            - can the user easily interact with the surface
- Highlight the main design and research issues for each of the interfaces.
    - o This is a huge topic but I think it's about applying our knowledge like recognition vs recall
        - Recognition tends to be better than recall
            - Humans are able to recognize things easier than recall information.
            - Text book uses example when Recall is preferable to recognition
                - page 164 online shopping
- Describe prototyping and different types of prototyping activities.
    - o Prototyping is a way for designers/users/stakeholders to interact with a design and make changes and explore it's suitability
    - o Low-Fidelity Prototyping
        - does not look or act like final project
        - examples of low-fidelity prototypes
            - using paper sheets as webpages
            - piece of wood as black berry
        - Storyboarding
            - consists of a series of sketches showing how a user might progress though a task using the product
            - page 390 shows an example
        - Sketching
            - More about design than about drawing
            - using symbols and shapes to help progress a storyboard or design
        - Wizard of Oz
            - Software-based prototype
                - The user interacts with a screen and person simulates the responses that the user would get
    - o High-Fidelity Prototyping
        - Looks and acts like a final product or provides more functionality (than a low-fidelity prototype)
        - Using Visual basic over paper, building a working model with old parts.
- Produce simple prototypes from the models developed during the requirements activity.
    - o I think this is what we did for our assignments (first one was due may 1st)
- Produce a conceptual model for a product and justify your choices.
    - o Questions the book says are useful
        - Which interface metaphors would be suitable to help users understand the product?
        - Which interaction type(s) would be best support the user' activities?

- Do different interface types suggest alternative design insights or options?
  - I think this applies mostly to our group project
  - Interface metaphors
    - The example the book provides is that of a electronic brochure.
    - A metaphor should answer the following questions
      - How much structure does the metaphor provide? A good metaphor will provide structure and preferably familiar structure
      - How much of the metaphor is relevant to the problem? One of the difficulties of using metaphors is that users may think they understand more than they do and start Appling inappropriate elements of the metaphor to the product leading to confusion or flase expectations
      - Is the interface metaphor easy o represent? A good metaphor will be associated with particular visual and audio elements, as well as words
      - Will your audience understand the metaphor?
      - How extensible is the metaphor? Does it have extra aspects that may be useful later?
- Explain the use of scenarios and prototyping in design.
  - Scenarios allows the designers to see how a user interacts with a product and if the user has any difficulties or frustrations trying to accomplish given goals of the product.