Questions?

- Email – Please prefix all course email with " CMSC434: "
- Class email list setup – you should have received one message from me on it.
- Survey being mailed out after class. If you don’t receive it, you must contact TA.
Today

- The Psychology of Everyday Things (POET)
- Fundamental design principles
- Brainstorming
Psychopathology of everyday things

• Everyday frustrations
  – Blame it on the users?
    • Need to read the manual?
    • They should learn?
Psychopathology of everyday things

• Everyday frustrations
  – Blame it on the users?
    • Need to read the manual?
    • They should learn?
  – Blame it on poor design?
    • Does not take into account basic human capabilities
      – How humans perceive the world
      – How humans learn
      – How humans deal with error
Psychopathology of everyday things

- How many of you can program or use all aspects of your
  - digital watch?
  - VCR?
  - sewing machine?
  - washer and dryer?
  - stereo system (especially car ones)
  - unfamiliar water faucets
We’re Not Designing For Ourselves

Darn these hooves! I hit the wrong switch again! Who designs these instrument panels, raccoons?
Fundamental Design Goals

“… the affordances of objects … convey messages about their possible uses, actions, and functions” (Norman, p82)

“is for” - objects, not environments
Different population, different affordances

- Kids
  - How to deal with small shoes?

- Elderly
  - Age Explorer suit (Meyer-Hentschel)

- Disabled users…
  - Limited vision, movements,…

Age Explorer suit (I.D. magazine)
Fundamental Design Goals

- Provide the right affordances
- Provide the right **mental model**
  - complexity
Fundamental Design Goals

- Provide the right affordances
- Provide the right *mental model*
  - Fridge control
Fundamental Design Goals

- Provide the right affordances
- Provide the right mental model
- Provide a good **mapping**
Fundamental Design Goals

- Provide the right affordances
- Provide the right conceptual model
- Provide a good mapping
- Make things **visible**
  - Menus
Fundamental Design Goals

• Provide the right affordances
• Provide the right conceptual model
• Provide a good mapping
• Make things visible
• Provide feedback
  – Visual, tactile, auditory…
Fundamental Design Goals

• Provide the right affordances
• Provide the right conceptual model
• Provide a good mapping
• Make things visible
• Provide feedback
• Recognize **causality**
  – Be responsive
Constraints

- **Cost**
  - But it costs more to manufacturer a good input device

- **Space**
  - But there isn’t room to put one controller per function

- **Discoverability**
  - Given that we’ve hidden some controls, how do people find them?