1.2 Design

CS 5984 Design of Interactive Systems
January 19, 2005
Problem Finding / Problem Solving

- What is design? (a first approximation)
- wicked problems
- iteration (Finding/solving dynamic)
- going deep on wide knowledge
Where do human-created artifacts come from?
Welcome to the digital music revolution. 7,500 songs in your pocket. Works with Mac or PC. Over a million sold. The new iPod.
What is design?
Iteration: Problem Finding / Solving Dynamic

- If design solves problems, then where do they come from?
- What is the nature of "requirements"?
- What is the nature of "problems"?
wicked problems / tame problems

- Horst Rittle
- Tame problems:
  - general agreement on formulation
  - stopping and/or success rule(s)
  - e.g. chess
Wicked Problems

Wicked problems have no definitive formulation, but every formulation corresponds to a formulation of a solution.

Wicked problems have no stopping rules.

Solutions to wicked problems cannot be true or false, only good or bad.

There is no exhaustive list of admissible operations to finding a solution.
For every wicked problem there is always more than one possible explanation.

Every wicked problem is a symptom of another higher level problem.

No formulation of problem and solution has a definitive test.

The problem solvers (designers) are fully responsible for their actions.
Iteration: Problem
Finding / Solving Dynamic

How do we know a problem?
Wide knowledge
Iteration: Going deep on wide knowledge

Process?
Iteration: Going deep on wide knowledge

Process?

Reflection

Design is a reflective practice.

[Donald Schon]
Iteration: Going deep on wide knowledge

- Process?
- Reflection
- Design journal
Iteration: Going deep on wide knowledge

- Process?
- Reflection
- Design journal
- Apply theory to practice
Iteration: Going deep on wide knowledge

- Process?
- Reflection
- Design journal
- Apply theory to practice
- Apply practice to theory
Aspects of a design journal

- always at hand
- contains ideas and observations
- annotatable
- structure must evolve to reflect development of ideas
- in a medium or multiple media? Which one(s)?
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Coming Attractions...

- Read Rittle, if you haven’t already
- Next time: brainstorming/team testing sketch problem and scenario sketch problem
- For Monday: read *Digital Ground*, Introduction & Chapter 1
- Check the website for team-formation info