**ICS 105: Project in HCI**

**Paper Prototyping**

- **early engagement with users**
  - the earlier the better... head off problems
  - better to engage before you even start!
  - minimize wasted development effort
- **paper prototyping**
  - user engagement with physical interface mock-ups
    - paper, card, post-it notes, etc
  - paper isn’t interactive, so you have to be

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**Low-Fi vs High-Fi Prototyping**

- **Why use Low-Fi prototypes?**
  - No expensive equipment needed
  - Fast and easy to implement
  - Anyone can implement
  - Fast iterations
    - # iterations ↔ final produce quality
- **Why not use Hi-Fi prototypes early on?**
  - May warp the perceptions of the customer/reviewer/user
    - Finished look seems hard to change
    - Comments stick to layout, fonts, colors, etc.
  - They encourage more precision
  - They may inhibit the creativity of the designers
  - Developers resist change

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**preparation**

- **four things before you start**
  - gather kindergarden supplies
    - heavy paper, index cards, tape, pens & markers, scissors
  - you’ll need these during the session
    - not just beforehand
    - creating extra dialogs, etc
  - a well worked-out design
    - you can’t test what you haven’t designed
    - you need a detailed understanding
      - need to know how the system will respond to all input
      - define your expectations in advance
        - know what error checking you will do

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**preparation**

- **four things before you start**
  - a set of questions that the test should answer
    - what is your evaluation meant to determine?
    - how are you going to figure it out?
    - what kind of evidence are you looking for?
  - a set of tasks for test subjects to perform
    - write these down
    - ensure that all users have the same starting-point
### Paper Prototypes

- **Three parts to the model**
  - The fixed components
    - The window frame, etc.
  - The variable components
    - Major components that will occur regularly
      - Screens, dialog boxes, menus
  - The dynamic components
    - Things based entirely on individual interaction
      - Generated on the fly... so you need "blanks"

### Conducting the Session

- **The session**
  - Introduction
    - Give some general background to the expected setting
  - Introduce the task
    - Again, do this IN WRITING

### Paper Prototyping

- **Four roles**
  - One person to facilitate
    - Interact with the user -- *ONLY PERSON WHO SPEAKS!*
    - Keep getting "output" from the user -- avoid pauses
      - "What are you thinking now?"
      - "What do you need to do next?"
  - One person to "be the interface"
    - Respond to user input
    - Simulate application logic

### Conducting the Session

- **As a test team, remember:**
  - You're there to OBSERVE and LEARN
  - Not to
    - Laugh (this most of all!)
    - Comment
    - Criticise
    - Guide
    - Inform

### Important Considerations

- **Other things to remember**
  - You need to REALLY know your interface
    - Can't go into this with a partial understanding
  - Know what happens for every possible mouse-click
  - You can always generate new interface components
    - Remember that paper can be layered...
  - Figure out where precision is needed and where not
    - Depends on your questions
  - When "being" the interface, be no more or less
    - No extra hints
    - Respond to what the user does, not what they SHOULD do
Balance the level of detail

A Paper Prototype: Shared Calendar System

Another Paper Prototype

- BFOIT Online Community for high school students and their mentors
- Tasks Supported
  - Video conferencing
  - Chat
  - Forum
  - Access to database of users profile

Membership Signup

Registration Page
Video Conference

Administrivia

- Assignment 1 is due next Tuesday
  - Team assignment
  - Bring it to class
  - 4 application ideas
  - Half a page on each idea
    - What the application would be
    - Who would use it
    - How they would use it
    - When they would use it