Interface and Interaction Design I

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What's Wrong with This Picture

Interfaces and Interactivity

- **Interfaces**: Static, the programmer’s perspective, the screens just sitting there.
- **Interactivity**: Dynamic, the user’s perspective, the system being used to perform tasks
- We'll look at interfaces this week and interactivity next week.

Don Norman’s Model of Action

- Don Norman is guru #1 of interfaces and interactivity.
- His web site, Don Norman’s jdn.org / User Advocacy and Human-Centered Design, is worth a visit
- The following is from The Psychology of Everyday Things (1988), the first book to read

Seven Stages of Action

Gulfs of Execution & Evaluation

The World
The Gulf of Execution

- Does the system provide actions that correspond to the user’s intentions?
- The difference between intentions and allowable actions is the Gulf of Execution

The Gulf of Evaluation

- Does the system provide a physical representation that can be readily perceived and interpreted in terms of the user’s intentions and expectations?
- The Gulf of Evaluation reflects the amount of effort that the person must exert to interpret the physical state of the system and determine how well the intentions have been met.

The Seven Stages as Design aids

How easily can the user:

- Determine the function of the system?
- Tell if the system is in the desired state?
- Determine a mapping from system state to interpretation?
- Tell what state the system is in?
- Perform the action?
- Tell what actions are possible?
- Determine a mapping from intention to physical action?

Cooper’s Four Postures

- These (and much else in these lectures) are from Alan Cooper’s *About Face 2.0: The Essentials of Interaction Design* (Wiley, 2003) -- the second book to read.
- The rules of interface design are different for the different postures – one size does not suit all.

Posture 1

**Sovereign**: Master of the Screen

- Occupy all the screen
- Used for hours at a time
- Most users are *perpetual intermediates*
- Requires strict adherence to standards, supporting *transportability of knowledge*
Posture 2

**Transient**: (called as necessary -- passive)

Another Posture 2

Posture 3:

**Daemonic**: (arrives and departs as necessary -- active)

- Example: Virus Checker, Firewall warnings

Posture 4:

**Auxiliary**: (continually present but passive, supporting and small)

The First Design Decision

- What is your app’s posture?
  - If **Sovereign**:
    - Most of your interface design decisions have been made for you!
    - You will be able to design and assess your app using a checklist, albeit a long and complicated one.
    - Most commercial systems are sovereign, so...
    - You have to follow the standard.

Here’s the Standard


- There’s an extension for XP for downloading at: http://www.microsoft.com/whdc/hwdev/windowsxp/downloads/default.mspx