**GUIs**
*Graphical User Interfaces*

or: What the Digerati Know

**Outline**
- what makes a GUI good? bad?
- common features of GUIs
- human-computer interaction (HCI) at UBC
- 'getting started' lab

**People and Technology**
- people innately are tool users, tool designers
- even the simplest things can be hard to use!
- human error often results from poor design
**user centered design**

- take qualities of users into account in design of technology
- particularly important for computers, because of their complexity
- two common modes for interfacing with computers: command line interfaces and graphical user interfaces (GUIs)

**what makes a good GUI?**

- *familiarity, consistency*: reflects relevant non-computer experience, experience with other programs
- *well chosen metaphors*: metaphors and analogies make sense and suggest important relationships
- *useful feedback*

**common GUI metaphors**

- command buttons
- menus
- files, folders
- icons

**other common GUI features**

- menus (incl. ‘...’ and triangle symbols)
- short-cuts
  - special role of
    - right mouse button (PCs), ctrl-mouse (Mac)
    - shift key

**[UI experiment]**

**blaze away!**

- exploit consistent interfaces
- look for feedback from computer
- don't worry about breaking the computer
  - careful with powering off, attaching devices
- don't worry about making mistakes
  - but save often
- ask questions!
**command line interfaces**

- you will use a *command line interface* when using your Unix account

- you can also create directories (i.e. folders), files, and edit your files in Unix

- command line interfaces require lots more knowledge “stored in the brain” rather than “in the world”, but are often preferred by experienced users

**human computer interaction @ UBC/CS**

- involves researchers from Computer Science, Psychology, Commerce, Forest Resource Management, and Engineering

- projects include
  - study of merits of adaptable user interfaces
    - Findlater & McGrenere paper (see course web page)
  - D’Groove (digital haptic turntable):
  - the Aphasia Project:
    - [www.cs.ubc.ca/projects/Aphasia](http://www.cs.ubc.ca/projects/Aphasia)

**take home message**

- if you are a frustrated computer user, blame the designers, not yourself!

- and remember… if you can’t beat them, join them!

**food for thought…**

“enjoy yourself. Walk around the world examining the details of design. Take pride in the little details that help…Give mental prizes to those who practice good design: send flowers. Boos to those who don’t: send weeds.”

— Donald A. Norman

**project idea**

- Record your experiences with computers over the semester - both the difficult and rewarding moments. Derive a list of good design principles, based on your experience, and suggest how the interfaces you used could be better designed.

- Present your record as a web page, web log (“blog”) or essay.

**what else?**

getting started lab