User Interface Design Principles

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CMPT370
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Human-computer interface

- WIMP/GUIs are just one kind of an interface between humans and computers
  - Input and Output
- Automated bank machine touch-screen
- Touch-tone keypad
- Voice recognition, speech synthesis
- Car steering wheel and pedals
- Head tracking / eye tracking
- EEG
- Other possibilities?

Some UI design principles

- Know your users: programmers? Man-on-the-street? Grandma?

- Be consistent: names, colours, layout, parts of speech

- Use metaphors carefully: desktop, canvas

- Use multiple levels of complexity
  - Let the user tradeoff safety for control

- Always show the current state of the program:
  - Waiting for password? Processing? (progress)

A few UI case studies

- BBC website
- Vincent Laforet website
- Blender3D application
- Google Calendar

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TODO

- Lab0 due midnight tonight
  - FLTK orientation, tutorials
  - No write-up needed
  - Upload ZIP/tarball to eCourses
- Lab1 due next Tue 20Jan
  - Design + implement your own FLTK program
  - Lab write-up
  - Should be somewhat "useful"