

## Class 22

### Chapter 12

1. Interaction Devices as tools
  - a. Example of putting up a shelf
2. Why choosing interaction devices matter
3. Why study them
4. Input Devices
  - a. Keyboards, keypads, and buttons
  - b. Pointing devices
5. Keyboards
  - a. Discrete input devices
  - b. Qwerty
  - c. Other Styles
    - i. Big Keys
    - ii. Chord
    - iii. Keypads
  - d. Selecting one
    - i. What size do the keys need to be
    - ii. What shape should it have
    - iii. How robust does it need to be
6. Pointing devices
  - a. Continuous input devices
    - i. Indirect
    - ii. Direct
  - b. Styles - indirect
    - i. Joystick
    - ii. Trackball
    - iii. Graphics tablet
  - c. Styles - direct
    - i. Touchscreen
    - ii. Pen system
    - iii. Light pen
  - d. Selecting one
    - i. How easy to learn does the device need to be
    - ii. How accurate
    - iii. How much time will the user spend on it
    - iv. How much space is available
    - v. How robust does it need to be
    - vi. How manually dexterous is the user
  - e. Speed, Accuracy, and preference
7. Alternatives
  - a. Gesture
    - . Iris and Fingerprint
  - a. Handwriting recognition
  - b. Speech Recognition
8. Output devices

- a. Screens
    - i. CRT
    - ii. LCD
  - b. Loudspeakers
  - c. Simple output
  - d. Refreshable braille displays
9. Alternatives
- a. HUD
  - b. HMD
  - c. Virtual reality