Component 4: Introduction to Information and Computer Science

Unit 1: Basic Computing
Concepts, Including History
Lecture 2

Selecting a Computer

- There is not one "best" computer
- Depends on needs
  - Users
  - Applications
  - Storage
  - Mobility
  - Budget
- Can change quickly due to frequent improvements in technology and price

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How to decide?

- Determine your budget
- Look at the requirements for the applications you need to run
- Determine how much storage you will need
- Research online using up to date reviews and buying guides

Options for Computer Systems Home/Business User (Jan, 2011)

- Desktop with a budget of $1,000 (doesn't include monitor)
  - Dual or Quad core processor (2 – 4 processors)
  - 6 – 8 GB of RAM
  - Separate graphics card
  - 500 GB – 1 TB hard drive
  - Blu-ray or DVD drive with burner
  - Latest OS
    - (Windows 7 or Mac OS X Snow Leopard)
- Upgrades available for more memory, faster graphics card

Other Options for Desktops

Tower Case

Small Form Factor Case

All in One

- Case
  - Tower
  - All in one
  - Small form factor
- Video Card
  - Integrated video on cheaper chips
  - More expensive, separate video card with own graphics memory speeds video

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Other Options for Desktops Monitors

- Most are LCD panels (TN, VA, IPS)
- Size (20, 22, 24 inches)
- Aspect Ratio (4:3, 16:10, 16:9)
- Brightness (more for movie and games)
- HDMI and DVI connections
- USB ports
- Ergonomic adjustments

Bottom line: test the monitor for what you want to do with it

Other Options for Desktops
Printers

- Ink jet printer
  - Inexpensive, slow
  - Affordable color printing
  - Good for home use
- Laser printer
  - More expensive
  - Fast, handle many jobs
  - Color much more expensive than black and white
- All-in-One
  - Printer, copier, scanner, fax
- Portable ink jet printer
  - Battery or car charged

Printer Specs

- Resolution
  - Measure in DPI
  - 600 x 600 DPI means 600 dots across by 600 dots down in one square inch
  - Higher resolution means sharper, more detailed output
- Print Speed
  - Measure in pages-per-minute (PPM)
- Connectivity
  - USB
  - Wireless
  - Ethernet for group printing
- Cost to print
  - Cost of cartridge
  - How frequently need to change

Other Options for Desktops

- Speakers
  - Basic integrated speakers or cheap 2 speakers
  - 2:1 or 5:1 (# satellite speakers: 1 subwoofer)
- Keyboard/mouse
  - Wireless available