A computer system consists of:

- Users
- Applications
- Operating Systems
- Hardware

|	Computer	Interface
0	Human Brain	The five(?) senses
1	Abacus	I - Fingers O - Visual & Tactile
2	Adding Machine	I - Fingers O - Visual & Aural
3	Calculator	I - Fingers O - Visual & Aural
4	Computer	?

Human Interface to a car –

Human interfaces to the computer

| Stage	Input	Output
Univac	Plugs and switches	Lights and printouts
IBM	Cards via Keypunch	Printouts
DEC	Keyboard	Display (line oriented) Printer
PC Mac	Keyboard Mouse Disk	Display (graphic) Printer (graphic) Beeps
Multi-Media Work Station	Keyboard Mouse	Display (graphic) Printer (color graphic) Speakers

SOME NEWER INPUT METHODS?

FAVORITE APP
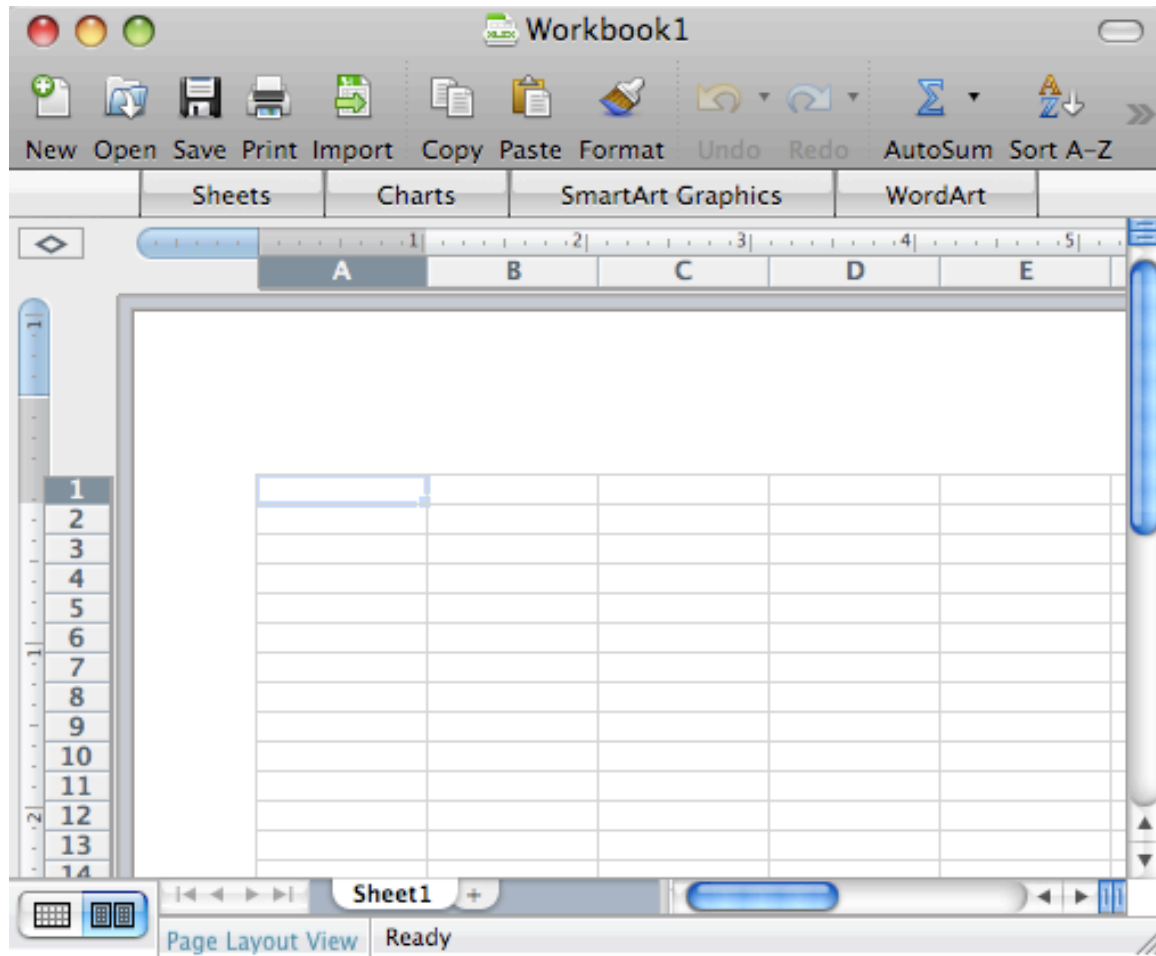
Conceptual Model

All cards have number on one side, letter on the other.

| E | D | 4 | 7 |
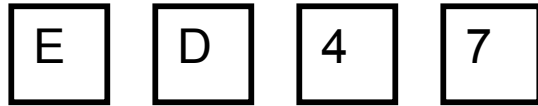
How many cards must we turn over to test:
**If there is a vowel on one side, there is an even number on the other side.** (9)

Conceptual Model

A restaurant policy says a manager must sign all receipts over $20 on the reciepts back.
There are 4 receipts on the register, one says $10, one says $30, two are turned over and only one of these is signed. (60)

Why HCI

♦ Computers are becoming smaller, faster, and more powerful.

  • Name some you carry around?

♦ Multimedia computer systems are causing a wider and more diverse audience to become interested in computers.

  • What % of your HD is used by iTunes?

♦ The user interface is a critical component for reaching larger audiences, and for achieving commercial success.
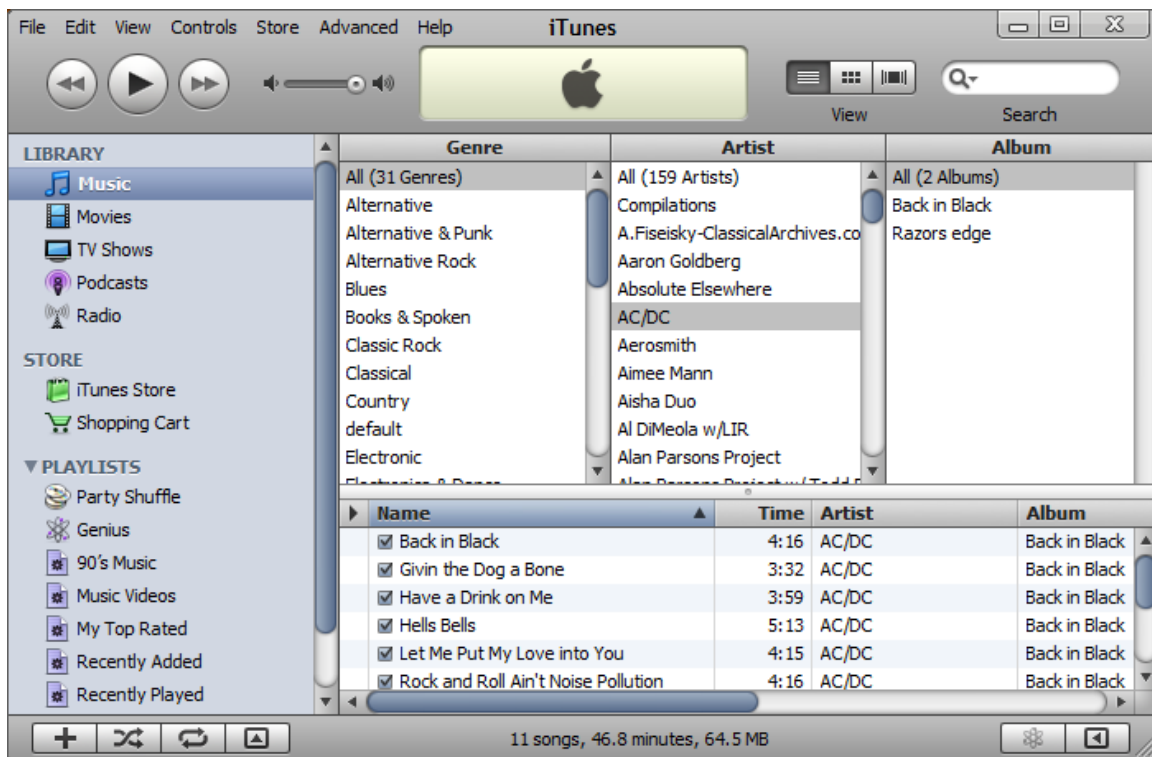
Know the user!

◆ Designing for people sounds easy but it isn't.

  • Why not allow a programmer to design for him/herself?

◆ Name as many uses of computers as possible, and describe the intended user audience for the following:

  • -------------------------

◆ Fundamental knowledge common to interface design processes:

  • Know the audience

  • Know the tasks

  • Evaluation Process

◆ Necessary knowledge to construct a user interface:

  • graphical user interfaces

  • menu selection technique

  • system message design

  • styles of interaction

  • technologies of interaction

  • media—text, video, animations, images, etc.

◆ Goals of software design (besides making money)

  • full functionality

- reliable
- available
- secure

Human factors - Design goals
- Accommodate diverse characteristics with the user interface
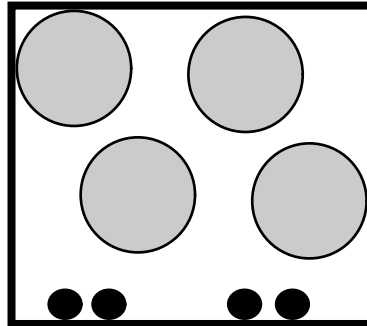- Make the user interface disappear

Three Basic Rules:
- Provide a positive initial experience.
- Be consistent.
  - Internal consistency
  - External consistency
  - Historical consistency
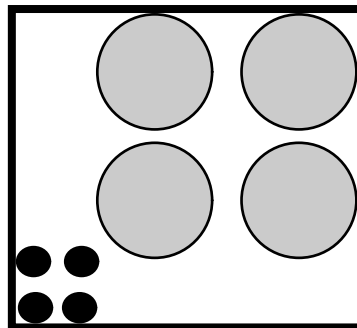- Real-world consistency
- No negative experiences.

An example of Semantic Distance or Stimulus-Response Distance as a function of design.
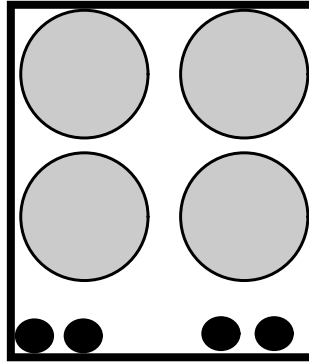
Stovetop A

Stovetop B

Stovetop C