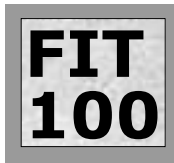


What The Digitalati Know



One goal of this class is to think about our use of IT abstractly. That is, looking at ourselves as computer users, what do we know, what more should we learn to be more effective and what should we change?

People And Technology

- ❖ People have no innate understanding of any technology more complicated than a stick
 - ❑ We must be trained to ride a bicycle, drive a car, ski, ...
 - ❑ Appliances and tools come with an owner's manual
- ❖ But people accumulate experience, learn and reason, so we can “figure out” how to use some gear without reading the owner's manual, e.g. portable CD player
- ❖ Product designers try to make technology so simple that members of a technological society can guess its operation using only experience, knowledge and reasoning

How To Learn Consumer Software

- ❖ Like physical product designers, software product designers know their design will be more successful if people can figure it out without resorting to a manual
- ❖ For someone to figure out software, the operation must be consistent with their experience and follow the same rules & principles
 - + Consistent interface
 - + Standard metaphors
 - + Features conveyed by analogies
 - + Full complement of basic features
 - + Intuitively consistent
 - + Rational defaults
- ❖ Expect to figure out consumer software on your own

FIT 100


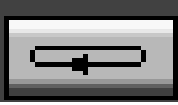
The Perfect GUI

- ❖ Most interactive software uses a Graphic User Interface or GUI, pronounced GOO·ey
- ❖ An example of a “perfect” GUI is the Macintosh Audio CD Player interface



- ❖ Do you know how it operates?

Recap of Audio CD Player

- ❖ The visual analogy is perfectly obvious if one has seen a physical CD player
 - ❑ “Metallic” buttons
 - ❑ CD “slot”
 - ❑ LCD font, complete with “shadows”
- ❖ The icons on the controls are standard
- ❖ The volume control shows more/less speaker “sound” as slider is moved up and down
- ❖ The names on the “mode” buttons are suggestive of the capabilities of an audio CD, and can be guessed
- ❖ The “single-pass”  icon changes to a continuous loop  icon when clicked, suggesting it’s meaning

Standard Metaphors

- ❖ GUIs are built using standard metaphors
- ❖ MS Word illustrates many of these features

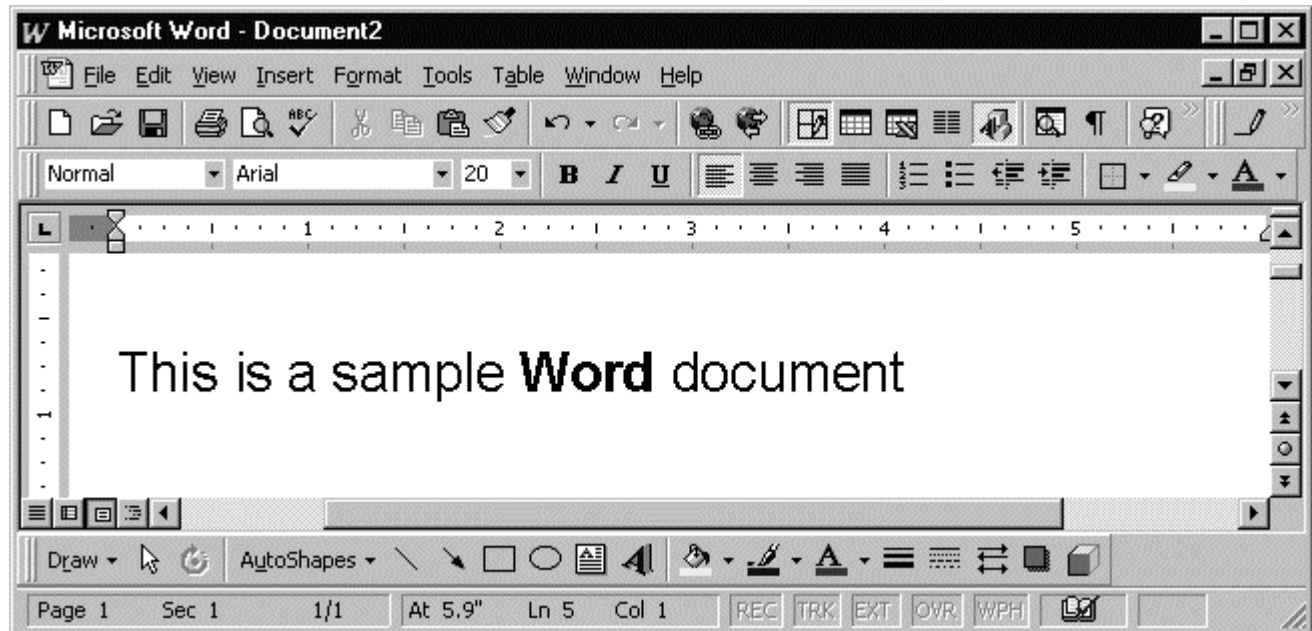
Buttons

Sliders

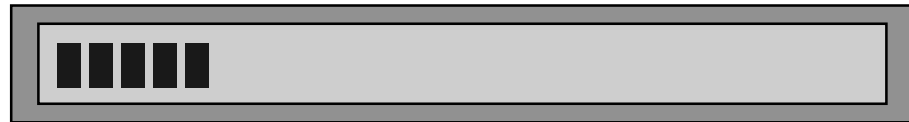
Arrows

Icons

Close



- ❖ How can you distinguish between a case when the computer is busy working on your task and the case when it is patiently idling, waiting for you to give it another command?



Computers will always give you feedback indicating their state of activity, the task they are performing, alternatives, spatial precision, etc.

- ❖ Watch for color or shadow change, icon change, title change, motion, etc.

- ❖ Menus present the functionality of an application
- ❖ There are pull-down menus and pop-up menus
- ❖ There are standard operations that should always be applicable in an information processing activity

File	
New	Ctrl+N
Open ...	Ctrl+O
Close	
Save	Ctrl+S
Save As ...	
<hr/>	
Page Setup ...	
Print ...	Ctrl+P
Print Preview	
<hr/>	
Exit	

Edit	
Undo	Ctrl+Z
Repeat	Ctrl+Y
<hr/>	
Copy	Ctrl+C
Cut	Ctrl+X
Paste	Ctrl+V
<hr/>	
Clear	
Select All	Ctrl+A

Notice the ellipsis (...) and the shortcut (Ctrl+X)

Summary Of GUI Features

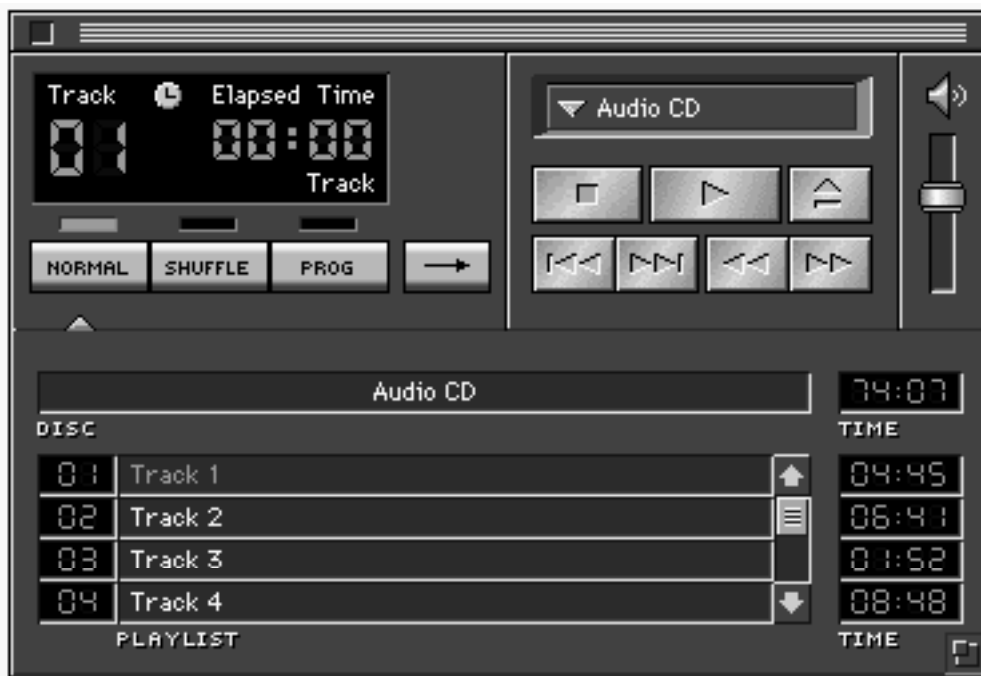
- ❖ Expect to see standard metaphors
- ❖ Expect to find the “standard” operations in the file and edit menus
- ❖ Expect to use analogies
- ❖ Expect feedback

These features and their behavior form our idea of desk top computing, our “mental model” of how personal computer software should work

FIT 100

“Clicking Around”

- ❖ When starting to use a new piece of software, take a moment to look at each menu and icon
- 🎯 With the expectation that much of the application can be brained out, “Click Around” to discover what’s there



Ironically, though most beginners think they should read the manual, it's most useful to an expert



“Blazing Away”

- ❖ Fundamental Rule of IT: Nothing Will Break
- ❖ The way to learn the operation of an application is to try it out, so blaze away
- ❖ Though nothing will break, things can get into a horrendous mess -- beginners and experts alike can really mess up software
- ❖ There is no value in the mess, so it doesn't have to be undone ... Throw the mess away
- ❖ Be prepared to throw work out
 - + Work on copies
 - + Set up limited, controlled situations
 - + Go out, and come back in

FIT 100 Summary

- ❖ First point ... by creating a mental model of personal computing, it is possible to learn many applications independently
 - + Expect a consistent interface with standard metaphors, standard operations, obvious and intuitive behavior, etc.
 - + “Clicking Around” familiarizes you with the available features of the software
 - + “Blazing Away” is trying out the software -- nothing will break, but its easy to create a hopeless mess, so be prepared to throw the mess out
- ❖ Second (most important) point ... view your use of IT abstractly -- Ask what you know, don’t know, need to learn, when to read the manual & when to ask for help