Learning About Technology

Chapter 2

Learning New Tools

- How do you learn to use new tools?
  - Read the instruction manual
  - Programming a VCR
  - Cooling my refrigerator
  - Be taught
  - Riding a bicycle
  - Driving a car
  - Just figure it out
  - Using an iPod
  - Microwaving food

Learning About Technology

- People do not have any innate technological abilities
  - Over time, we gain experience using different kinds of devices (e.g., setting the clock on a microwave)
  - Designers try to design products to match what we may already know

User Interface

- **user interface**: the aggregate of means (e.g., buttons, lights, blinking cursors, text boxes) by which people (the **users**) interact with a system

- **GUI**: graphical user interface (pronounced GOO·ey)

Metaphor

- **metaphor**: an object or idea used as an analogy for some other object or idea
  - Designed to be similar to physical entities but can also have their own properties
**Button Metaphor**

- "Pressing" a button

![Image of button metaphor]

**Desktop Metaphor**

The Future?

- … or taking the desktop metaphor too far?
  - [http://www.youtube.com/watch?v=Ouy6su59NJA](http://www.youtube.com/watch?v=Ouy6su59NJA)

- BumpTop:
  - [http://bumptop.com](http://bumptop.com)
  - Not yet publicly available

- Real Desktop:
  - [http://www.real-desktop.de](http://www.real-desktop.de)

**Why Know Metaphors?**

- Designers use similar metaphors so as to minimize the time it takes to learn a new piece of new software.

- But what if you have never interacted with a certain type of interface before?
  - There's a first time for everything!

![Image of traffic lights metaphor]

**Menu**

- *menu*: list of operations the software can perform
  - Grouped by similarity of operations
  - Listed in *menu bar*

![Image of menu bar metaphor]
Types of Menus
- pull-down menu (or drop-down menu)
- pop-up menu

Submenu
- Moving mouse pointer over menu option with right arrow reveals another menu

Which Operations Are Available?
- Not all operations are available in every situation
  - For example, Copy does not make sense if nothing has been selected to be copied.
- Unavailable operations are “grayed out” and cannot be selected

Is More Input Needed?
- Selecting (clicking) the menu option will not do anything.

Is More Input Needed?

Standard Menus
- Some operations are common to most applications.
  - These operations are usually grouped (possibly with other operations specific to the application) into two menus named File and Edit.
  - Be familiar with these operations.*

*No, you will not be tested on them—learn them for your own personal benefit.
**Keyboard Shortcut**

- **keyboard shortcut**: combination of keyboard characters that performs a predefined function
  - Shown next to menu items
- **mnemonic**: underlined character indicating to the user which key to press (possibly in conjunction with the Alt key) to activate a command

Menu with shortcuts highlighted with green and mnemonics highlighted with yellow.

**Using Keyboard Shortcuts**

- To use a shortcut, you do **NOT** hit all keys simultaneously.
  - For example, **Ctrl+S** means "Press and hold the Ctrl key down and then hit the S key on the keyboard. Release all keys."
- The capitalization of the letter does not matter (i.e., **Caps Lock** can be on).
  - However, do not hit the **Shift** key unless it’s part of the shortcut, like **Ctrl+Shift+S**.

**Standard Keyboard Shortcuts**

<table>
<thead>
<tr>
<th>File Functions</th>
<th>Edit Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>New N</td>
<td>Cut X</td>
</tr>
<tr>
<td>Open O</td>
<td>Copy C</td>
</tr>
<tr>
<td>Save S</td>
<td>Paste V</td>
</tr>
<tr>
<td>Print P</td>
<td>Select All A</td>
</tr>
<tr>
<td>Quit Q</td>
<td>Undo Z</td>
</tr>
<tr>
<td></td>
<td>Redo Y</td>
</tr>
<tr>
<td></td>
<td>Find F</td>
</tr>
</tbody>
</table>

Table 2.1 Standard Shortcuts. These common shortcut letters for standard software operations combine with “Control” (⌘) for Windows or “Command” (⌘) for Mac OS X.

**Useful Keyboard Shortcuts**

- **F1** opens a window with help information about the program you are using.
- **Alt+Tab** switches between running programs.
- In web browsers, **Tab** moves the cursor focus to the next link or form field (e.g., text box, check box) on a web page.
  - **Shift+Tab** moves the focus backwards.

**List Of Keyboard Shortcuts**

- **Keyboard shortcuts for Windows**
  - [http://support.microsoft.com/kb/126449](http://support.microsoft.com/kb/126449)
- **Mac OS X keyboard shortcuts**

**Make Your Own Keyboard Shortcuts!**

- **Windows**:
- **Mac**:
Learning To Use a New Application

- Familiarize yourself with the application by "clicking around."
- Check menus to see what operations are available.

What Does That Button Do?

- Still not sure what the button does?
  - Click it!*
  *Are you sure about that?

Clicking Around Willy Nilly

- Some operations (e.g., deleting data) should not be executed haphazardly.
- However, such operations will usually ask again to see if you are really sure. Think twice if asked again.
- So click away!

"Hidden" Operations

- Some operations are not obvious and cannot be discovered by clicking around.
  - Examples:
    - Shift-Select: Allows you to select adjacent objects
    - Ctrl-Select: Allows you to select non-adjacent objects
  - Many obscure features, tricks, and shortcuts can be learned by watching others.

Getting More Help: Online Forums

- forum (or message board): discussion site where users can read and post messages
- Some forums are dedicated to users of a single application.
- Forums always have a search box. Search before you post.
  - Someone might have already posted your same question. Hopefully, someone has also already posted an answer!

Additional Resources

- Computer Hope.com
  - http://www.computerhope.com/
  - Check out the Computer Hope forum