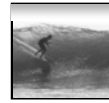




## Society & IT

Computers: not just for dorks sitting alone in front of glowing display monitors

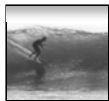
Based on material by Sandra B. Fan, Larry Snyder & Shaun Kane



## Expecting the Unexpected

Technology & computers have an impact on society and people's social behavior, sometimes in unexpected ways

(Not just computers – any disruptive technology will have unexpected effects)



## Outline

We'll look at three ways technology and society interact

- Email/Netiquette
- Intellectual Property
- Accessibility



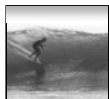
## The Problem With Email

Email is part of our lives ... but it's not good for everything

- Poor emotion, emphasis, alternating interactions, sarcasm ...

Email has (n)etiquette

- 1 topic messages; include context w/ reply
- Use 'vacation' auto-reply
- Answer aging email in reverse arrival order
- Get sender's permission before forwarding
- Distribution lists



## Intellectual Property (IP)

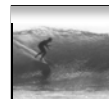
What is IP?

- \* *An intellectual creation*
- \* *E.g. books, music, images, software, designs for products/inventions/processes*

What is not IP?

- \* *Things like real estate, pets, cars, pencils, etc.*

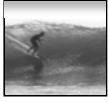
You might own a physical copy of a music CD, but you don't own the music.



## Software

When you buy software, you don't own software, you lease it

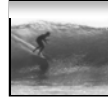
- \* *Use of software: site licenses*
- \* *Can't give/sell it*
- \* *Shareware: try before you buy*



## IP on the Web

Who owns it?

- \* *Before internet, harder to share intellectual property because it was embodied in something physical*
- \* *Now text, music, images, videos and other IP are all over the web*
- \* *Sharing is a good thing*
- \* *Stealing is not...how to resolve?*



## Copyright: true or false?

"I'm not making a profit, so it's OK"

"The image was on a website, so it's OK"

"The item did not say it was copyrighted"

"I bought the CD, so I can use it in my work"



## Copyright: true or false?

"I'm not making a profit, so it's OK"

- \* *False, noncommercial use is still forbidden*

"The image was on a website, so it's OK"

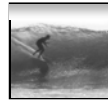
- \* *False, copyright may restrict your right to redistribute or use the image in another work*

"The item did not say it was copyrighted"

- \* *False, since 1989, all work is copyrighted by default*

"I bought the CD, so I can use it in my work"

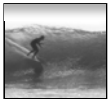
- \* *False, buying a CD does not give you ownership rights*



## What is Copyright?

A way to give creator of some "work" incentive to create the work

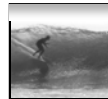
- \* *Applies to artistic works only, not inventions/processes/etc.*
- \* *Gives creator certain rights to their work*
- \* *Work is automatically copyrighted when it is created, no need for ©*
- \* *Creator retains these rights for lifetime + 75 years*



## What is Copyright?

Copyright protects owner's right to

- \* *Make a copy of the work*
- \* *Create derivative works*
- \* *Distribute/publish work, including electronically*
- \* *Publicly perform the work*
- \* *Publicly display the work*



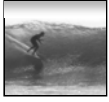
## When is it okay to use others' work?

Personal Use, e.g.

- \* *Print a copy of a webpage to read on bus*
- \* *Making a backup copy of a CD*
  - *(maybe? Probably?)*

Public Domain

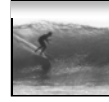
- \* *After life+70yrs, work falls into public domain*
- \* *Anyone can use, for any purpose, even commercial*



## Fair Use

Allows limited use of copyrighted material, without permission, in certain ways, such as...

- \* For educational or scholarly purposes
- \* Limited quotations for review or criticism
- \* For parody



## Fair Use

Fair use is determined by:

- \* *the purpose and character of the use (including whether commercial or nonprofit educational)*
- \* *Nature of copyrighted work*
- \* *How much of work is being used*
- \* *Effect on market value of work*



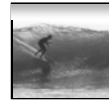
## Copyright Infringement

Don't violate people's copyright!

- \* You can be sued
- \* You can be fined
- \* It's just not nice

Instead...

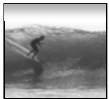
- \* Ask for permission
- \* Create your own
- \* Creative Commons (<http://creativecommons.org>) lets you easily and legally find shared files, and share your files, under more flexible copyright licenses (e.g. okay to use as long as non-commercial, or as long as you cite original creator, etc.)



## Resources

How to determine if it's fair use:

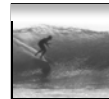
- \* *University of Texas: the Four-Factor Test (<http://www.utsystem.edu/OGC/IntellectualProperty/copypol2.htm>)*
- \* *Copyright Management Center: Fair Use Checklist (<http://www.copyright.iupui.edu/checklist.htm>)*



## Accessibility

Internet has allowed many people with disabilities access to information they never could have had before.

However, there are still barriers, but the great thing about technology is that these barriers can be easily overcome.



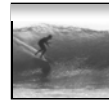
## What is accessibility?

- \* **Accessibility** is the degree to which technology is usable by people with disabilities
- \* **Universal access** is the philosophy of designing technology and information to be usable by all people without specialized adaptations



## Why do we care about accessibility?

- \* Many people have visual, hearing, cognitive, motor disabilities
  - Non-accessible products limit your audience
- \* It's the law
  - Government-funded websites must meet accessibility guidelines
- \* Accessible design often just makes your webpage better
  - Easier to use webpages are good for everyone



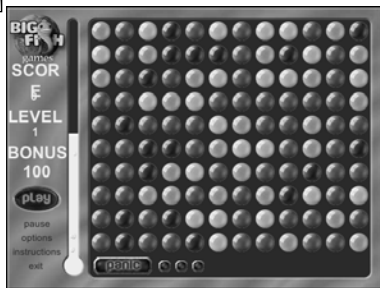
## Example: Color blindness

Inability to distinguish between certain colors

- \* Affects 10% of males
- \* Often have problems with red and green



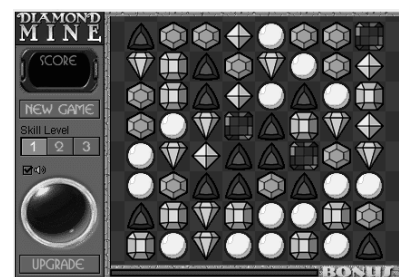
## Is this accessible?



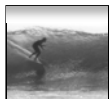
Big Fish Games



## Better



PopCap Games



## How do people with disabilities access the web?

### Blindness

- \* Use screen reader
  - Cannot scan page easily
  - Cannot view images
  - Must read page linearly
- \* Screen reader simulation (<http://www.webaim.org/simulations/screenreader>)

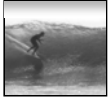
### Impaired motor skills

- \* Specialized input device, like mouth stick or eye tracker
  - May be inaccurate or slow to use



## Solutions

- \* Accessibility checklist:
  - <http://www.w3.org/TR/WAI-WEBCONTENT/checkpoint-list.html>
- \* Follow web standards
  - World Wide Web Consortium: <http://www.w3.org/>
- \* Structure your documents
  - Use headings (**<h1>**, **<h2>**...), lists (**<ol>**, **<ul>**), etc. to logically organize content
  - Don't use large amounts of text



## Solutions

- \* *Use alt tags for images*
  - ``
- \* *Make sure your webpage doesn't depend on stylistic elements like color and fonts, use CSS for that*
  - <http://www.w3.org/Style/CSS/>
- \* *Tables should have row & column headers, and shouldn't be used for stylistic formatting*