

What Makes Usable Software

LBSC 690: Jordan Boyd-Graber

September 24, 2012



COLLEGE OF
INFORMATION
STUDIES

Adapted from Jimmy Lin's Slides

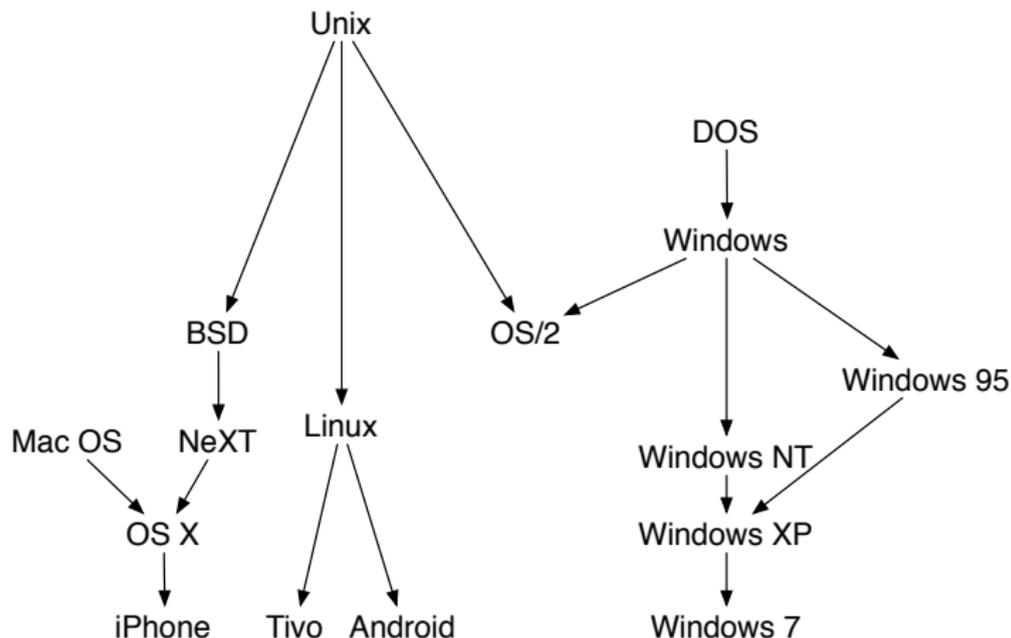
Goals

- Input Devices
- Operating Systems: The foundations of interactions
- Quick Introduction to HCI
 - ▶ Connect the design of everyday objects with computer interfaces
 - ▶ Articulate what makes an object well or poorly designed
 - ▶ Learn about metaphors in modern interfaces
- Understand how to evaluate systems
- Understand principles of good Web site design

Outline

- 1 Operating Systems
- 2 Types of Input Devices
- 3 User-Centered Design
- 4 Interface Paradigms
- 5 Information Architecture

A Brief History of Operating Systems

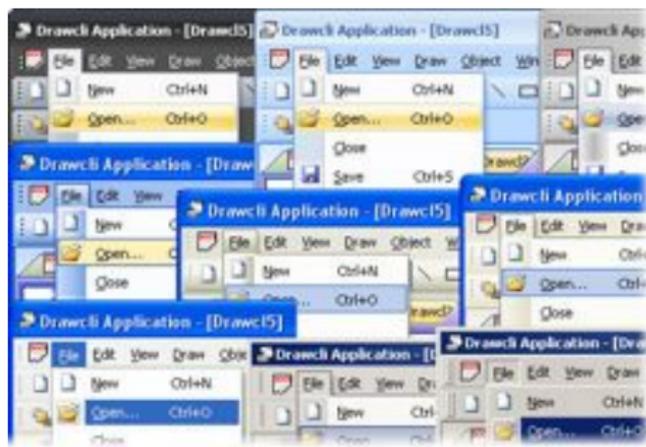


What does an OS do?

- More and more ...
- Boot
- Provide an interface
- Manage programs & memory
- Drivers

- Taking a computer from “off” to “on”
 - 1 Send power from power supply to everything else (fan starts whirring)
 - 2 BIOS starts
 - 3 Power on self-test (POST): bus, RAM, cards, etc. (beeps and screen messages)
 - 4 POST results compared to last good boot
 - 5 Search a bootable device
 - 6 Load boot information into memory, hand off
- Operating System
 - 1 Load drivers (more later)
 - 2 Verify user
 - 3 Establish network connections

Interface



```
stelek@Nonsense:/home/Archive/Programs/Asterisk/1.4/asterisk-gui
File Edit View Terminal Tabs Help
[root@Nonsense asterisk-gui]# make checkconfig
--- Checking Asterisk configuration to see if it will support the GUI ---
* Checking for http.conf: OK
* Checking for manager.conf: OK
* Checking if HTTP is enabled: OK
* Checking if HTTP static support is enabled: OK
* Checking if manager is enabled: OK
* Checking if manager over HTTP is enabled: OK
--- Everything looks good ---
* GUI should be available at http://Nonsense:8088/asterisk/static/config/cfgbasic.html
* Before using the GUI, Please run the install script at http://Nonsense:8088/asterisk/static/config/setup.html
* The login and password should be an entry from /etc/asterisk/manager.conf
  which has 'config' permission in read and write. For example

[admin]
secret = mysecret11437
read = system,call,log,verbose,command,agent,config
write = system,call,log,verbose,command,agent,config

--- Good luck! ---
[root@Nonsense asterisk-gui]#
```

- Way to interact with user
- In Linux, many choices “Window Manager”
- More on this next week
- We’ll use both in this class

- Programs

- ▶ Way to launch programs
- ▶ Way to end programs
- ▶ Multitasking (**scheduling**)
- ▶ Application switching

- Memory

- ▶ Move HD information into memory (caching)
- ▶ Limit how much RAM a program uses
- ▶ Make programs think they have a computer to themselves



Drivers

- Provide way for software to talk to hardware
- Supplied by manufacturer based on “rules” provided by OS
- Need a driver for every piece of hardware you bring home (sometimes OS already has driver)
 - ▶ Video card
 - ▶ Camera
 - ▶ Printer
 - ▶ Network card

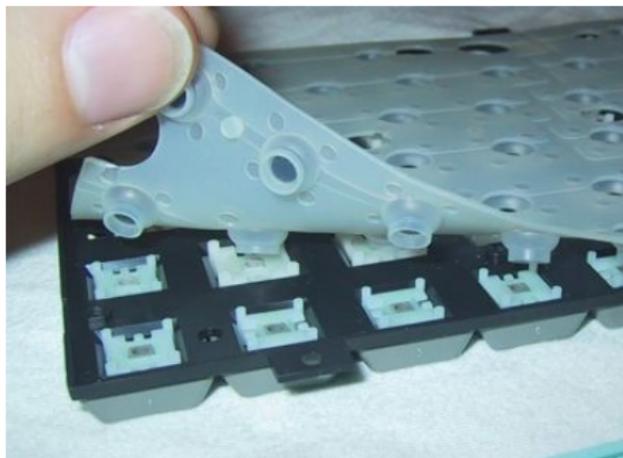
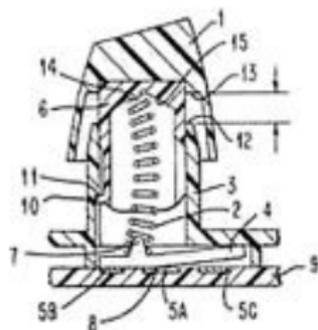
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Input Devices

- Keyboard
- Mouse
- Camera

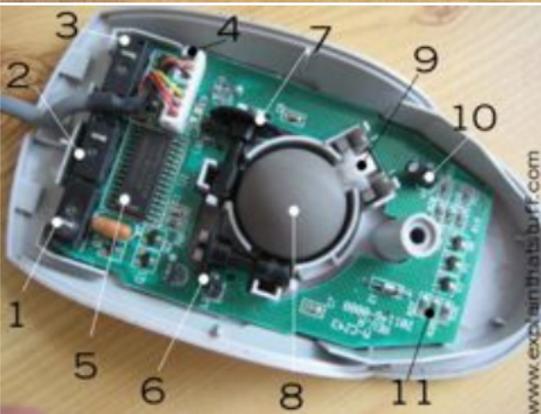
Keyboard



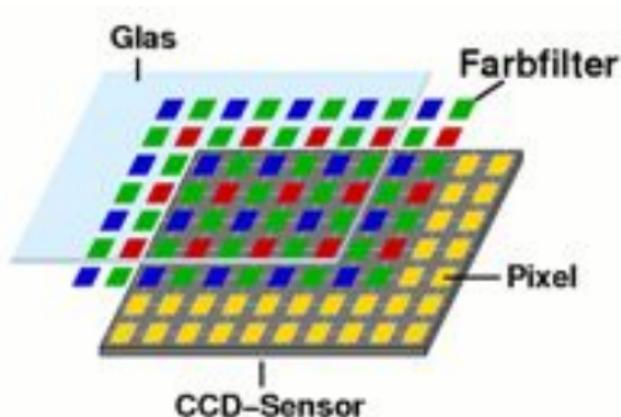
- When you press a key, it completes a circuit
- Each individual keypress is sent to computer as a special code
- Operating system interprets interrupts and responds
- A spring or piece of plastic restores key position
- First keyboards mimicked the depth you had to press a typewriter key (now much thinner)
- Circuits printed on a single board

Mouse

- Patented in 1970 by Douglas Englebart
- First had wheels that directly rolled on surface
- Replaced soon by balls, which then turned two orthogonal wheels
- Then replaced by tiny integrated cameras



Camera



- Filters restrict amount of light getting to each cell
- As photons strike the cell, a voltage is created (charge can “bleed”)
- Voltage is converted into a binary number (e.g. between 0 and 255)
- What does mega pixel mean?

Other Input Devices

- Scanner
- Keyboard
- Microphone
- Radio frequency identification (RFID) reader
- Magstrip reader
- Tablet
- Joystick, guitar, wiimote
- Touchpad

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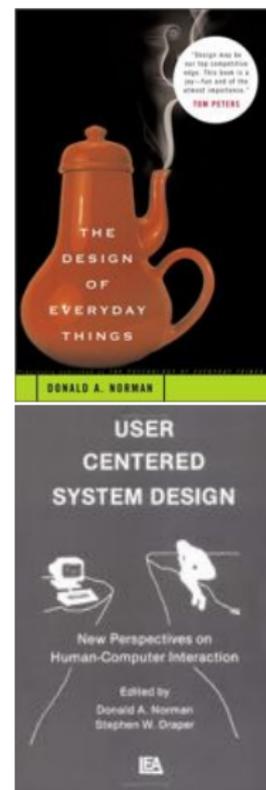
What is HCI?

Human Computer Interaction

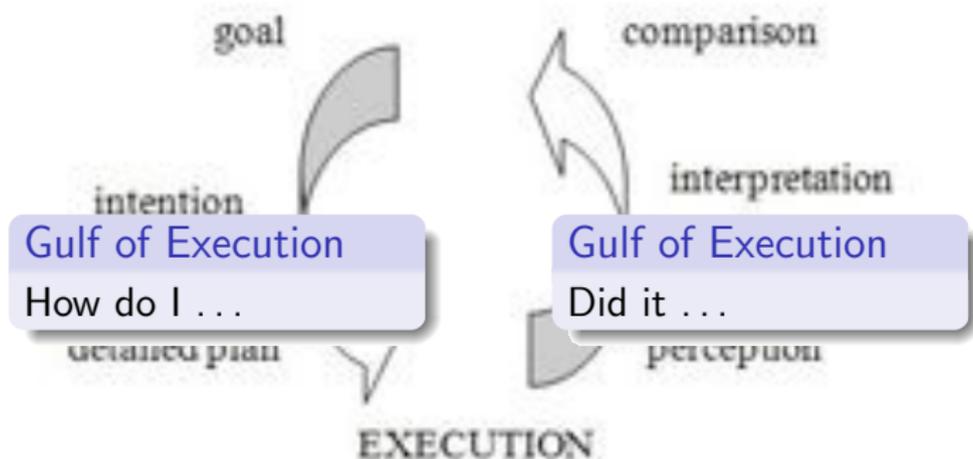
Field concerned with the ...

- Design
- Implementation
- Evaluation

of usable systems.



Human Action Cycle



Only small fraction of cycle is physical

Design Concepts

- Visual affordance
- Visible Constraints
- Mapping
- Causality
- Transfer effects
- Idioms
- Metaphors
- Cultural associations
- Individual differences

Affordance

- The perceived and actual properties of the object that determine how it should be used
- Purpose should be obvious from appearance
 - ▶ Chair for sitting
 - ▶ Table for placing things on
 - ▶ Knobs for turning
 - ▶ Slots for inserting things into
 - ▶ Buttons for pushing
 - ▶ Computers for ???







Handle is for lifting, but this is for scrolling?



- Can you edit text?
- Affordances for resizing window?
- Handle: graphic or interface?
- Button is for pressing, but what does it do?

IN THE NEWS | OBAMA JOESR.ARTIST? | STATE PARKS | TOM DELAY | HEALTHCARE | IMMIGRA



▲ Eric J. Schabert / Los Angeles Times

Date growers scurry to fill Ramadan orders

By Raja Abbudrahman

Good thing the fruit freezes well. The shifting timing of the Muslim holy month means this year it's out of sync with the Southern California date harvest.

Supreme Court orders hearing for condemned man

By Richard Fausset

The surprising move is the first of its kind in nearly 50 years. Seven trial witnesses recanted testimony in the 1989 slaying.

Boy's death exposes gaps in county child welfare system

State might take action to jail more drug offenders

Firefighters making headway in California wildfires

Constraints

Knob



Push or pull?

Bar



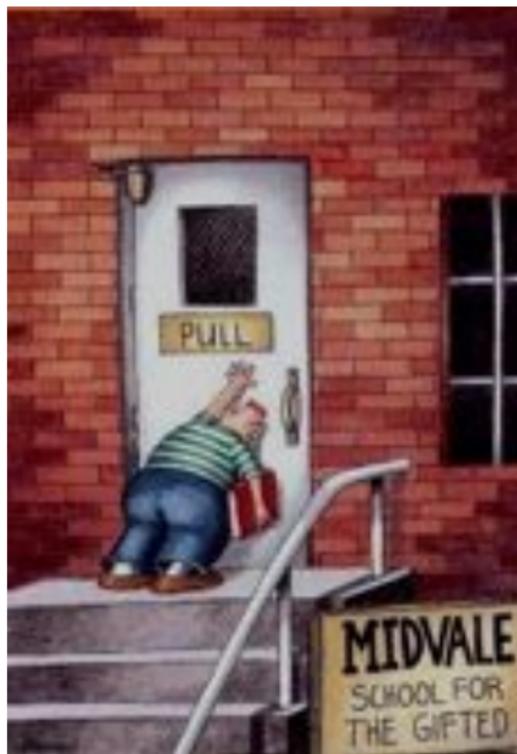
Push, but which side?

Asymmetric Bar



Push right hand side.

Constraints



Constraints

The image shows two overlapping windows from a software application. The window on the left is titled "Form1" and contains a "Date:" label followed by a text input field. Below this are three separate input fields for "Month", "Day", and "Year", which are currently filled with "May", "22", and "1997" respectively. The window on the right is titled "Appointment" and has several tabs: "General", "Attendees", "Notes", and "Planner". The "General" tab is active. It features a "When:" section with "Start:" and "End:" fields. Both are set to "Wed 5 /14 /97". There is an "All day" checkbox which is unchecked. Below this is a "Description:" field containing the text "Smart Technology Ser". A calendar popup is visible over the "Appointment" window, showing the month of "May 1997". The calendar grid highlights the date "14" (Wednesday) in blue. At the bottom of the "Appointment" window, there is a "Where:" field with a home icon to its left.

Constraints

Cup Holder

Caller: Hello, is this Tech Support?

Tech: Yes, it is. How may I help you?

Caller: The cup holder on my PC is broken and I am within my warranty period. How do I go about getting that fixed?

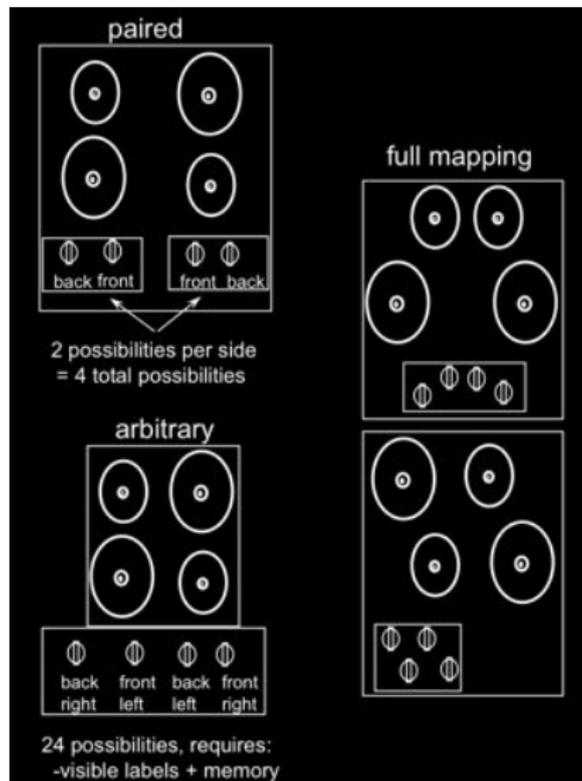
Tech: I'm sorry, but did you say a cup holder?

Caller: Yes, it's attached to the front of my computer.

Tech: Please excuse me if I seem a bit stumped, its because I am. Did you receive this as part of a promotional, at a trade show? How did you get this cup holder? Does it have any trademark on it?

Caller: It came with my computer, I don't know anything about a promotional. It just has 4X on it.

Mapping



Mapping



Mapping



Mapping

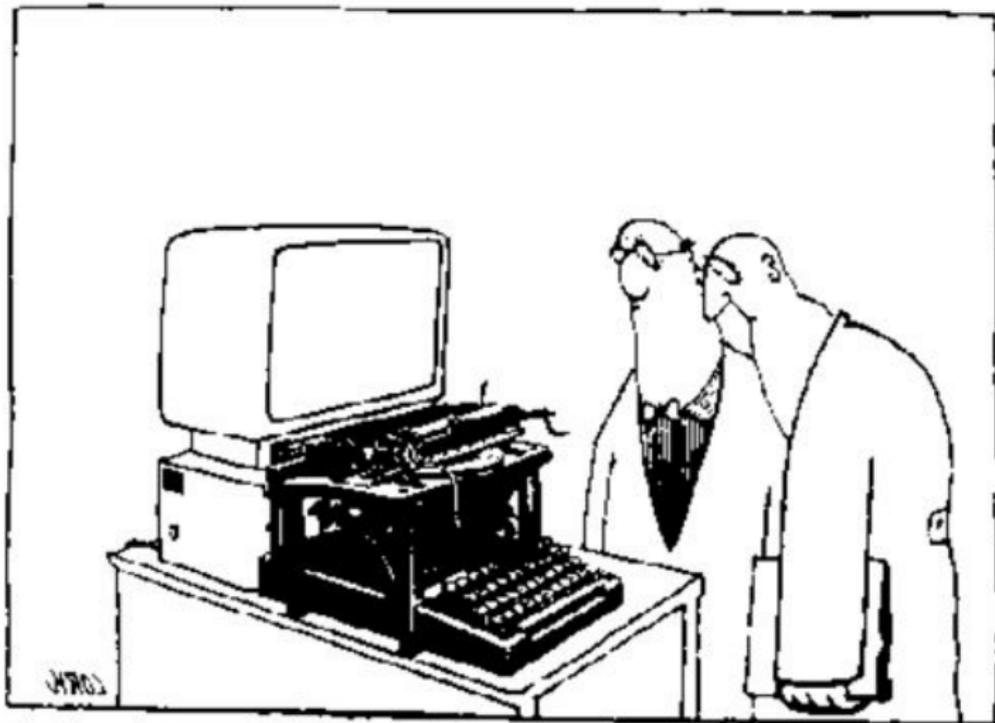


What makes a Wii fun?

Causality

- Humans will draw connections even if none exist (post hoc, ergo propter hoc)
- Thus, actions should have immediate feedback
- User should be in control - no random events
- Placebo buttons: Often pressed repeatedly

Transfer Effects



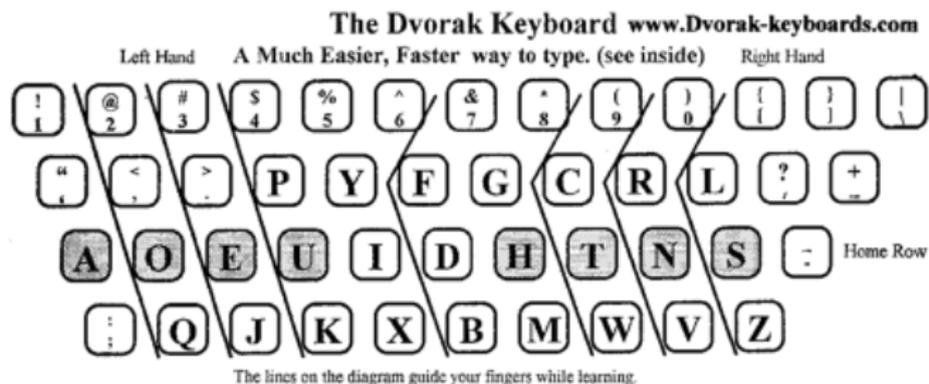
Transfer Effects

Douglas Adams

First we thought the PC was a calculator. Then we found out how to turn numbers into letters with ASCII and we thought it was a typewriter. Then we discovered graphics, and we thought it was a television. With the World Wide Web, we've realized it's a brochure.

- Keyboard layout
 - ▶ Qwerty keyboard: designed to prevent jamming of keyboard
 - ▶ Dvorak keyboard (1930s): possibly faster
- Layout of number pads
 - ▶ Calculator vs. keyboard
 - ▶ Traditional telephone vs. fancy cell phones

Transfer Effects



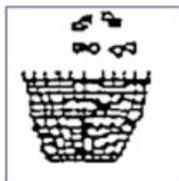
- People learn idioms that work in a certain way
 - ▶ Red means danger
 - ▶ Green means safe
- Idioms vary in different cultures
 - ▶ Light switches:
 - ★ America: down is off
 - ★ Britain: down is on
 - ▶ Faucets
 - ★ America: counter-clockwise on
 - ★ Britain: counter-clockwise off
 - ▶ Have you tried crossing a street in London?

Metaphor

- Examples
 - ▶ Desktop
 - ▶ Folder
 - ▶ Trash Can
 - ★ To eject a disk on a Mac, you had to drag it to the trash
 - ★ Did this erase it?
 - ▶ Window
- Usually good; allow transfer effects
- When do metaphors go bad?
 - ▶ Breaking rules: recycle bin placed on desktop
 - ▶ Metaphor is teacher (what if your system can do more?)
 - ▶ Bad metaphors may lead to bad design

Cultural Influence of Icons

- Because a trash can in Thailand may look like this



- a Thai user is likely to be confused by this



- Sun found their email icon problematic for urban dwellers



Individual Differences

- Disabilities
- Skill sets
- Unexpected outcomes

Individual Differences: Disability



- How can blind users navigate a webpage?
 - ▶ Text to speech, describing images (ALT tag)
 - ▶ Skimming actions with descriptive link text (don't put more info "here")
- Other disabilities, e.g. aphasia
 - ▶ Users neglect right hand side of screen
 - ▶ Cannot necessarily read text
- With mobile devices, more users are similarly constrained
- Moral: **degrade gracefully**

Individual Differences: Skill sets

- Beginners
 - ▶ Make basic operation easy
 - ▶ Offer lots of help
 - ▶ Don't overload with options
- Frequent users
 - ▶ Allow for shortcuts
 - ▶ Don't distract with help
- Power users: customization and respect
- Rule of Thumb: Design for 95% of population, not average user

Individual Differences: Unexpected Outcomes

- Your assumptions may not match users
- Use case might be different from what you intended
- Moral: Keep things as simple and general as possible

Examples



Examples



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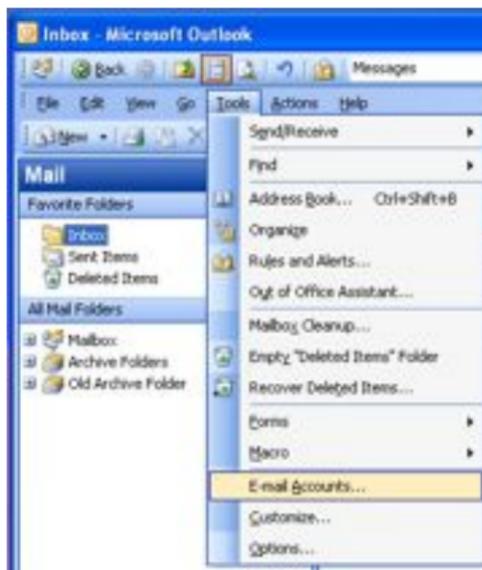
- **Windows**, **Icon**, **Menu**, **Pointing Device**



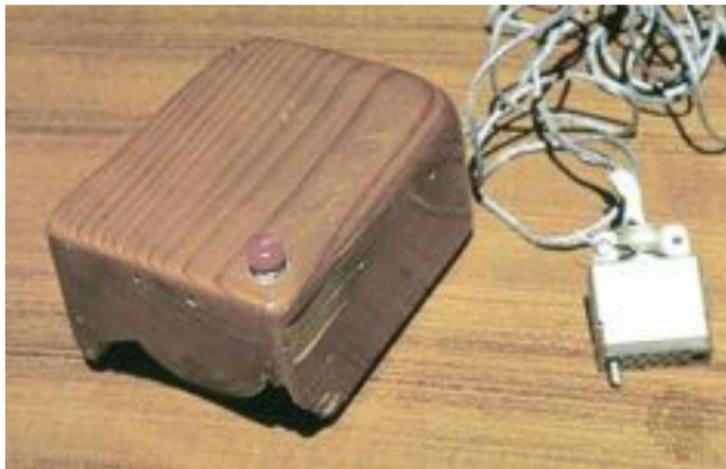
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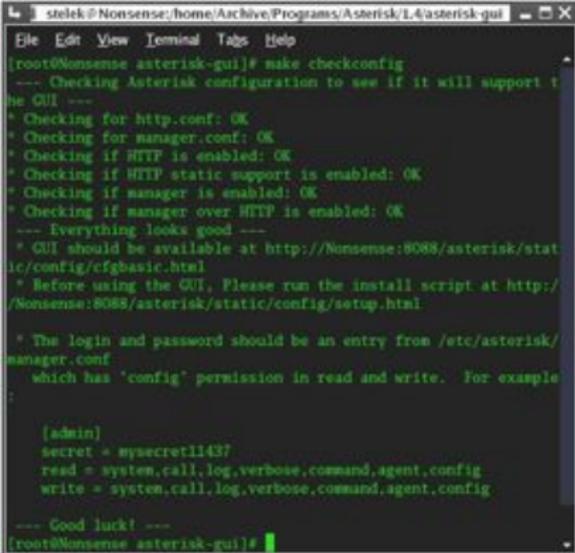
- **Windows**, **Icon**, **Menu**, **Pointing Device**



- **W**indows, **I**con, **M**enu, **P**ointing Device



- **W**indows, **I**con, **M**enu, **P**ointing Device
- More information displayed at once
- Good for multitasking
- Shows users what's possible
- Easy introduction



```
stetk@Nonsense:home|Archive|Programs|Asterisk|1.4|asterisk-gui
File Edit View Terminal Tags Help
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[admin]
secret = syssecret11437
read = system,call,log,verbose,command,agent,config
write = system,call,log,verbose,command,agent,config

--- Good luck! ---
[root@Nonsense asterisk-gui]#
```

- Easy to implement
- Sometimes it's all you've got (remote system, broken system)
- Good for repeated actions
- Difficult to know what's possible
- Requires memorization of syntax
- Comparison to "oral history" (Stephenson)

- Each command is a word (no spaces)
- Some commands just are (whoami, pwd)
- Some commands take optional arguments (ls)
- Some commands have a single argument (cd)
- Some commands only can take two arguments (cp)
- Some commands can take many arguments (wc, grep)

- Bigger programs are invoked in the same way
- emacs, vi, sqlite3 (subject of HW3)

Outline

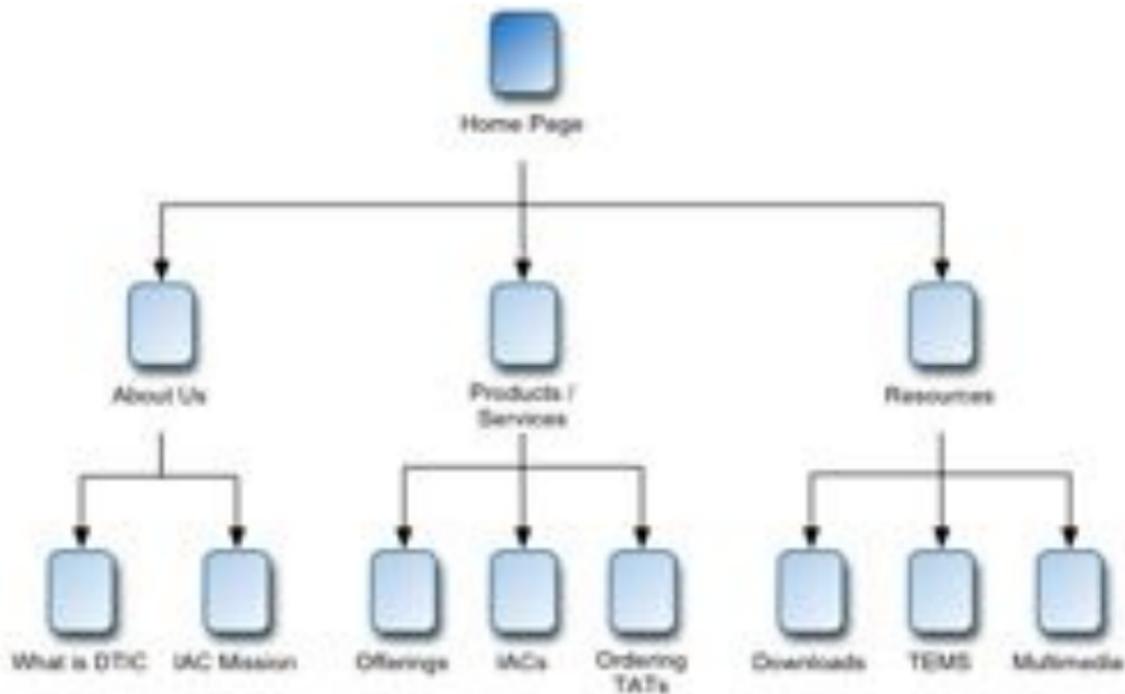
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Information Architecture

- The design of an “information space” to facilitate access to content
- Consists of two components:
 - ▶ Static design
 - ▶ Interaction design

- Different principles of organization
 - ▶ Logical: inherent structure (chronological, alphabetical,)
 - ▶ Functional: by task
 - ▶ Topical: by subject
 - ▶ Demographic: by user
- Take advantage of metaphors
 - ▶ Organizational: e.g., e-government
 - ▶ Physical: e.g., online grocery store
 - ▶ Functional: e.g., cut, paste, etc.
 - ▶ Visual: e.g., octagon for stop

Static Design



Designing CRAPpy Pages

- **Contrast:** make different things different
 - ▶ to bring out dominant elements
 - ▶ to mute lesser elements
 - ▶ to create dynamism

Designing CRAPpy Pages

- **Contrast:** make different things different
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- **Repetition:** repeat design throughout the interface
 - ▶ to create consistency
 - ▶ to create unity

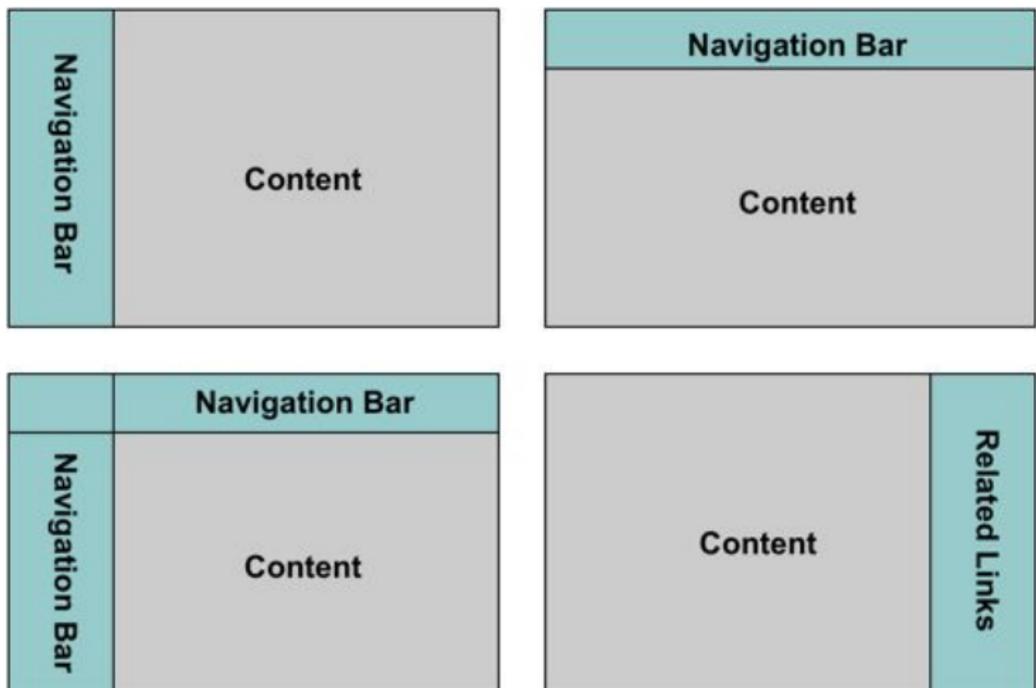
Designing CRAPpy Pages

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Designing CRAPpy Pages

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 - ▶ to create unity
- **Alignment:** visually connect elements
 - ▶ to create flow
- **Proximity:** make effective use of spacing
 - ▶ to group related elements
 - ▶ to separate unrelated elements

Screen Design: Use Grids



Screen Design: Ebay

The screenshot shows the eBay website interface in a Mozilla Firefox browser window. The browser title is "autograph Tom Brady, Autographs-Original, Autograph-Reprints items on eBay.com - Mozilla Firefox". The page features the eBay logo, navigation links (Buy, Sell, My eBay, Community, Help), and a search bar. Below the navigation is a banner for "SWAP YOUR RIDE" with a "Ford CHALLENGE" button. The main content area displays search results for "autograph Tom Brady".

Home > Buy > Search Results for "autograph Tom Brady"

All Items Auctions Buy It Now eBay is creating a new search experience. Try it in our playground.

autograph Tom Brady All Categories Search Advanced Search

Search title and description
Related searches: tom brady auto, tom brady, reggie bush auto, tom brady sp, tom brady cardinals

Narrow Your Results

- Sports Mem, Cards & Fan Shop (31)
- Autographs-Original (33)
- Autograph-Reprints (14)
- Cards (3)
- More ...

Related Guides

- Sports Collectibles
- Graded Sports Cards
- Sports Autographs
- Fan Apparel & Souvenirs
- Sports Cards
- See all related guides ...

Search Options
Location

31 items found for: autograph Tom Brady (save the search)

Sort by: Time: ending soonest Customize Display

Compare	Item Title	Bids	Price*	Shipping for USA	Time Left
<input type="checkbox"/>	2007 TOPPS TX TOM BRADY AUTOGRAPH & GAME JERSEY (2/15) Brady's regular card #3 in the set is included	14	\$125.00	Not specified	1h 56m
<input type="checkbox"/>	TOM BRADY 8X10 PHOTO AUTOGRAPH AUTO COA GAI CERTIFIED BY THE BEST IN THE BUSINESS !!	11	\$99.76	\$2.50	3h 27m
<input type="checkbox"/>	Tom Brady New England Patriots Signed Autograph Visor	1	\$9.99	Calculate	4h 34m
<input type="checkbox"/>	TOM BRADY AUTOGRAPH SIGNED 8 X 10 MVP PHOTO COA PATRIOT		\$9.99	\$6.50	1d 03h 36m

Screen Design: New York Times

The screenshot shows a web browser window displaying the New York Times Business section. The article title is "Ayn Rand's Literature of Capitalism" by Ayn Rand, published on September 19, 2007. The article text discusses the book "Atlas Shrugged" and its impact on business executives. A sidebar on the right contains a "More Articles to Discover" section, an "Afternoon Update" sign-up, a BASF advertisement, and a "More Popular - Business" list. The browser's address bar shows the URL "http://www.nytimes.com/2007/09/19/business/19rand.html".

Ayn Rand's Literature of Capitalism
By AYN RAND
Published: September 19, 2007

One of the most influential business books ever written is a 1,200-page novel published 50 years ago, on Oct. 10, 1957. It is still drawing readers; it ranks 38th on [Amazon.com's](#) best-seller list. ("Winning," by [John F. Welch Jr.](#), at a breezy 384 pages, is No. 1,431.)

The book is "Atlas Shrugged," Ayn Rand's glorification of the right of individuals to live entirely for their own interest.

For years, Rand's message was attacked by intellectuals whom her circle labeled "do-gooders," who argued that individuals should also work in the service of others. Her book was dismissed as an homage to greed. [Gore Vidal](#) described its philosophy as "nearly perfect in its immorality."

But the book attracted a coterie of fans, some of them top corporate executives, who dared not speak of its impact except in private. When they read the book, often as college students, they now say, it gave form and substance to their inchoate thoughts, showing there is no conflict between private ambition and public benefit.

"I know from talking to a lot of Fortune 500 C.E.O.'s that 'Atlas Shrugged' has had a significant effect on their business decisions, even if they don't agree with all of Ayn Rand's ideas," said John A. Allison, the chief executive of BB&T, one of the largest banks in the United States.

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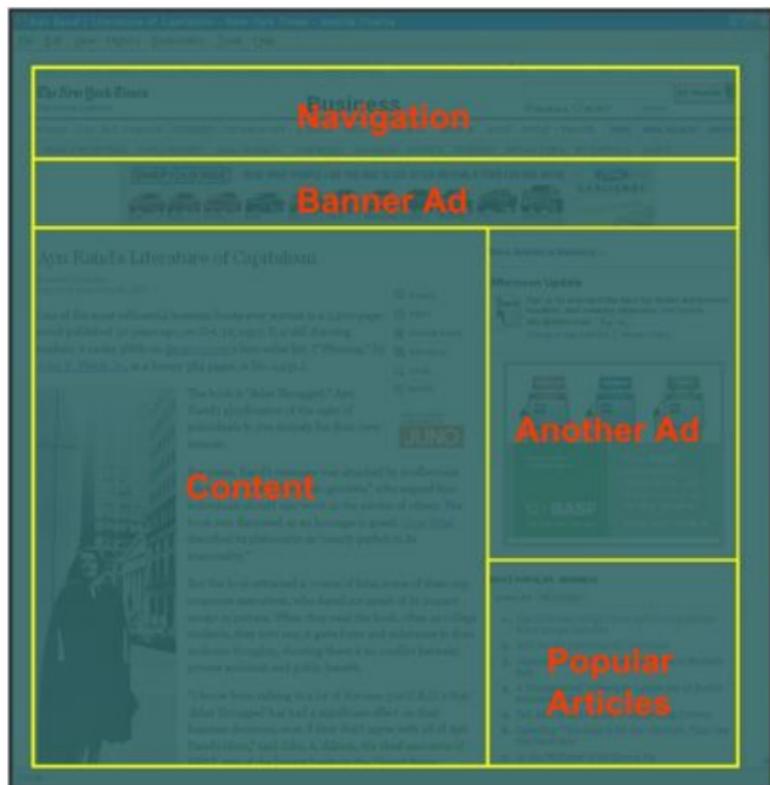
With BASF innovations in agriculture, get results in just 40-14. The Future.
BASF The Chemical Company FORD 8477 2006 B

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2. Ayn Rand's Literature of Capitalism
3. Japanese Housewives Dressed in Secret as Markets Fall
4. A 'Cognitivist' Greekman Leaves Out of Bush's Economic Policies
5. 'No-As' PGs and Phoenix Transferring Diversify
6. Spending: The Glass Is for the Coldest, That One the Fastest
7. At 1's, 'McPaper' is All Green Up

Screen Design: New York Times



Screen Design: Amazon

The screenshot shows the Amazon.com website interface in a Mozilla Firefox browser window. The search bar at the top contains the word "tiger". The page layout includes a navigation bar with links for "Your Account", "Cart", "Your Lists", and "Help". Below the search bar, there are links for "Gift Certificates", "International", "Hot New Releases", "Bestsellers", "Today's Deals", and "Sell Your Stuff".

Category
Any Category
Books (124,035)
Sports & Outdoors (11,204)
Home & Garden (15,973)
Toys & Games (10,734)
Apparel (7,937)
Everything Else (7,221)
Jewelry & Watches (3,404)
Automotive (3,120)
Music (717)
Home Improvement (793)
Office Products (725)
Health & Personal Care (714)
DVD (432)
Electronics (394)
VHS (355)
Baby (294)
Video Games (143)
Software (114)
Gourmet Food (104)
Musical Instruments (87)
Unbox Video Downloads (87)
Beauty (75)
Wireless Accessories (37)
Industrial & Scientific (15)
Magazine Subscriptions (5)
Grocery (3)

Listmania!
Somatic Psychology
Necessaries: A Set by Jess

"tiger"
Did you mean **Isaac?**
Related Searches: [isacac](#), [tiger woods](#).

Showing Top Results Previous | Page: 1 | 2 | 3 | Next >

-  **Apple Mac OS X Tiger 10.4.6 (Mac DVD)** by Apple Computer (DVD-ROM - May 1, 2006) (Mac OS X)
[Buy new: \\$128.00 \\$119.99](#) [26 Used & New from \\$74.99](#)
In Stock
★☆☆☆
Software: See all 114 items
-  **Tiger (5 Ancestors)** by Jeff Stone (Paperback - Mar 14, 2006)
[Buy new: \\$5.99](#) [71 Used & New from \\$0.79](#)
Get it by **Wednesday, Sep 19** if you order in the next **23 hours** and choose one-day shipping.
Eligible for **FREE** Super Saver Shipping.
★☆☆☆
Books: See all 124,039 items
-  **Tiger: The Ultimate Guide** by Valmik Thapar (Hardcover - Jun 2004)
[Buy new: \\$30.95 \\$26.97](#) [25 Used & New from \\$7.00](#)
In Stock
Eligible for **FREE** Super Saver Shipping.
★☆☆☆
Books: See all 124,039 items
-  **Tiger Woods PGA Tour 06** by Electronic Arts (Aug 28, 2007) (Xbox 360)
[Buy new: \\$59.99](#) [37 Used & New from \\$40.00](#)
Get it by **Tuesday, Sep 18** if you order in the next **8 minutes** and choose one-day shipping.
Eligible for **FREE** Super Saver Shipping.
★☆☆☆
ESRB Rating: Everyone
Video Games: See all 163 items

Transferring data from ec1.images-amazon.com...

Screen Design: Amazon



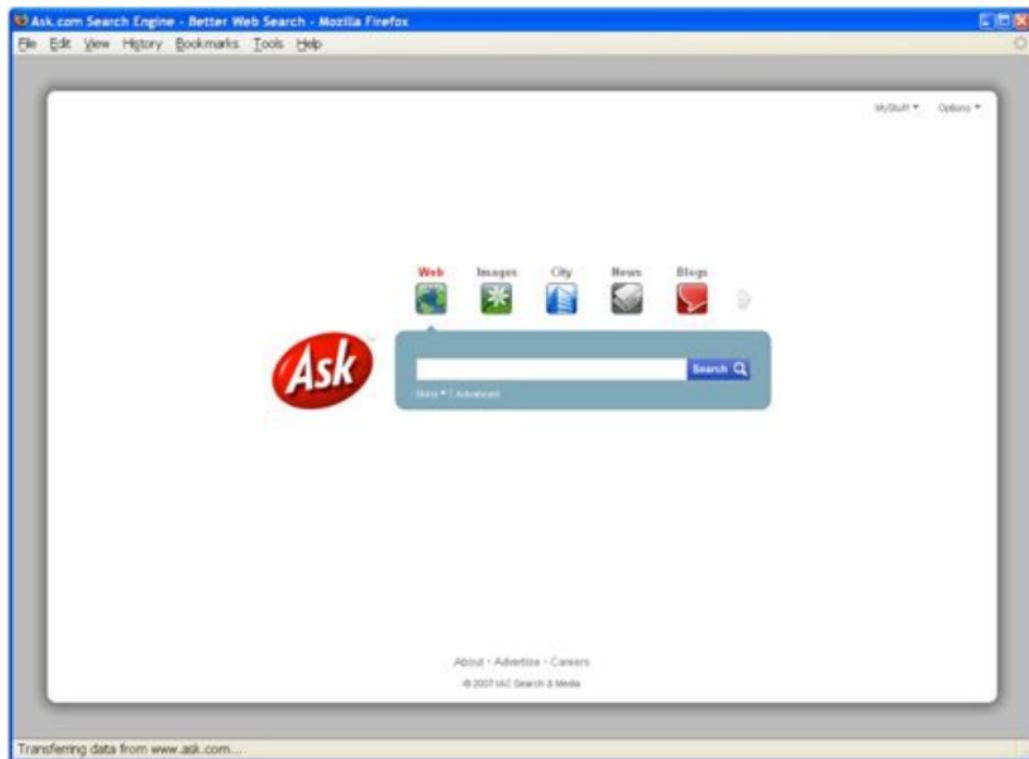
Interaction Design

- Chess analogy: a few simple rules that disguise an infinitely complex game
- The three-part structure
 - ▶ Openings: many strategies, lots of books about this
 - ▶ Middle game: nebulous, hard to describe
 - ▶ End game: well-defined, well-understood
- Information navigation has a similar structure!
- Middle game is underserved

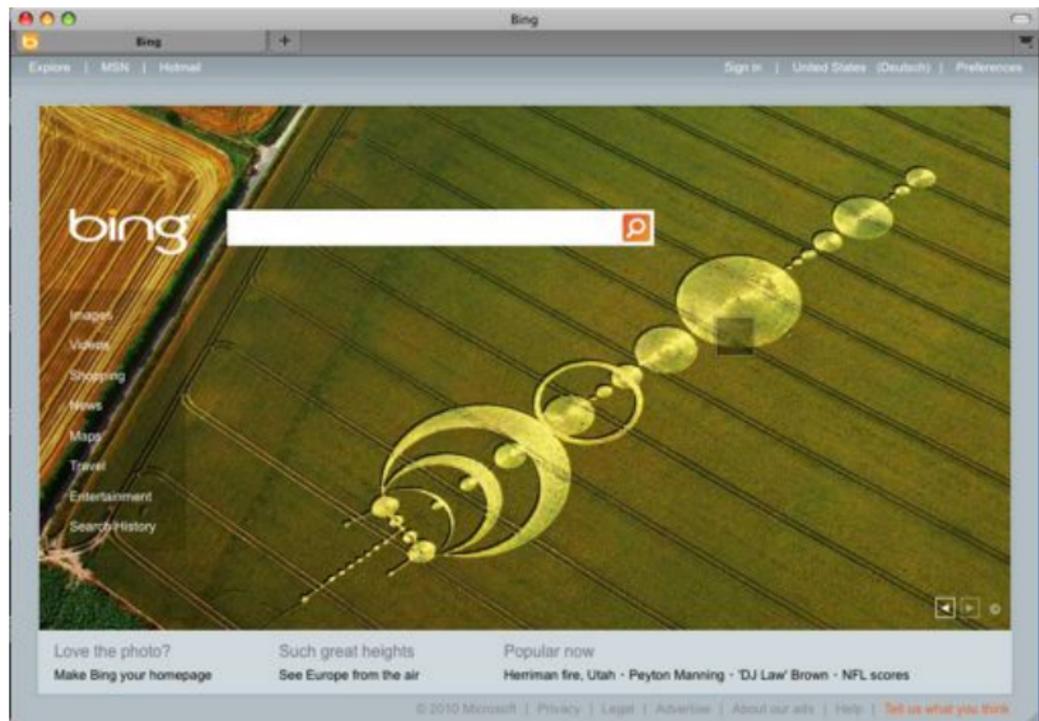
Opening Moves



Opening Moves



Opening Moves



Opening Moves

The screenshot shows the Match.com homepage in a Mozilla Firefox browser window. The browser's address bar displays "Dating Service - Singles, Personals and Love, Match.com - Mozilla Firefox". The page features a large background image of a man (Levige) and a dog. A search form is positioned on the right side of the page, and a navigation menu is at the bottom.

match.com
IT'S OKAY TO LOOK™

I'm a:
seeking:
Between ages: and
Near zip code:

FREE! Portrait Toolkit™
And Vogue's Guide to Match.com™

The 6 Month Guarantee

NEW! match-Mobile
Try Match.com on your mobile

Dr. Phil's Dating Insights
FREE Video Preview

USERNAME: Levige - CONTACT NOW!
"Cats. It's them or us."

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POWERED BY: Compas Dating Sites Online Dating on iVibes
Entertainment Network Live!Up! Labels AOL RapidPay BigRed Match Hotels

Endgame

Match.com - Find Singles at the World's Largest Online Dating Personals Service - Mozilla Firefox

File Edit View History Bookmarks Tools Help

match.com

MY MATCH SEARCH MY MESSAGES MY PORTRAIT MY ACCOUNT HELP

Welcome fateahavet

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MindFindBind™ with Dr.Phil

texgirl80

To the world you're one person but to one person you might just be the world.

Active within 24 hours
27-year-old woman
Silver Spring, Maryland, United States
seeking men 22-35
within 50 miles of Colesville, Silver Spring, Maryland, United States

Relationships: Never Married

Have kids: None

Want kids: Someday (2)

Ethnicity: White / Caucasian

Body type: Curvy

Height: 5'6" (167cms)

Religion: Christian / Other

Smokes: No Way

Drinks: Social drinker, maybe one or two

[return to your matches](#)
[previous](#) | [next](#)

[EMAIL HER](#)

[TALK TO HER](#)

[WINK FOR FREE](#)

[Do you match?](#)
[See more like her](#)
[Add her to favorites](#)
[Forward her to a friend](#)
[Block from Contact](#)
[Block from Search](#)

[Report a Concern](#)

matchWords™

MatchWords™ are an exciting new way of finding people with common interests. Add your own MatchWords to your Portrait, and get in on the excitement now!

More of My Photos

About me and who I'm looking for

I just moved to the DC Metro area from the great state of Texas. I've had a few serious relationships in the past and dated but timing is everything. I'm looking for someone who's down to earth and has goals in life. I want someone who can make a candle in dinner or take me to a ball game. I like a good sense of humor and a nice smile.

[About me](#)

Done

Middle Game

The image shows a screenshot of the Amazon.com website. The search bar at the top contains the word "tiger". Below the search bar, the page is divided into two main sections. On the left, there is a "Category" list with the following items and counts: Any Category, Books (124,039), Sports & Outdoors (31,206), Home & Garden (15,975), Toys & Games (10,716), Apparel (7,925), Everything Else (7,221), Jewelry & Watches (3,608), Automotive (1,126), and Music (917). On the right, the search results for "tiger" are displayed. It includes a suggestion "Did you mean [tigger?](#)", "Related Searches: [leopard](#), [tiger woods](#).", and a section titled "Showing Top Results". The first result is "Apple Mac OS X Tiger 1", which has a small image of the Tiger logo. The price is listed as "Buy new: ~~\$129.00~~ \$119.99" and it is marked as "In Stock".

Middle Game

The screenshot shows an eBay search results page for 'autograph Tom Brady'. The page is displayed in a browser window with a yellow header. The search bar contains 'autograph Tom Brady' and the category is set to 'All Categories'. Below the search bar, there are buttons for 'All Items', 'Auctions', and 'Buy It Now'. The search results show 31 items found. The first item is '2007 TOPPS TX TOM BRADY AUTOGRAPH & GAME J...', and the second is 'TOM BRADY 8X10 PHOTO AUTOGRAPH AUTO COA...'. The page also includes a 'Narrow Your Results' sidebar with categories like 'Sports Mem, Cards & Fan Shop' and 'Related Guides' such as 'Sports Collectibles' and 'Graded Sports Cards'.

Home > Buy > Search Results for 'autograph Tom Brady'

All Items Auctions Buy It Now

autograph Tom Brady All Categories Search Advanced

Search title and description

Related Searches: tom brady auto, tom brady, reggie bush auto, tom brady sp, tom brady contenders

31 Items found for: autograph Tom Brady (Save this search)

List View | Picture Gallery

Compare Item Title

 2007 TOPPS TX TOM BRADY AUTOGRAPH & GAME J...
Brady's regular card #3 in the set is included

 TOM BRADY 8X10 PHOTO AUTOGRAPH AUTO COA...
GAI CERTIFIED BY THE BEST IN THE BUSINESS !!!

Narrow Your Results

Sports Mem, Cards & Fan Shop (31)

- Autographs-Original (13)
- Autographs-Reprints (11)
- Cards (5)
- more ...

Related Guides

- Sports Collectibles
- Graded Sports Cards
- Sports Autographs

Middle Game

The screenshot displays an online dating service interface. At the top, the browser address bar shows "Online Dating Service - Singles, Personals and Relationships - Match.com - Mozilla Firefox". The main content area features a grid of 16 user profile cards, each with a small photo and text indicating the number of photos and activity status (e.g., "Active within 24 hours").

Two profile pop-ups are overlaid on the grid:

- The first pop-up is for user "ssNes00", showing a profile picture and the text "5 more photos active within 5 days".
- The second pop-up is for user "MeetRachel1979", showing a profile picture and the text "21 more photos active within 5 days".

On the right side, a "Refine Your Search" sidebar is visible, containing the following options:

- I am seeking
- between and
- Online Now
- Photos only
- located within miles of
- Basics
- Appearance
- Lifestyle
- Background/Values
- Search

Interaction Patterns

- Drive to content
- Drive to advertisement
- Move up a level
- Move to next in sequence
- Jump to related

Recap: Goals for Today

- Understand what devices provide input to a computer
- Understand basic principles of HCI
 - ▶ Connect the design of everyday objects with computer interfaces
 - ▶ Articulate what makes an object well or poorly designed
 - ▶ Learn about metaphors in modern interfaces
- Understand how to evaluate systems
- Understand principles of good Web site design

Accessible Pages

Your boss wants you to revamp the library's webpage. Here's his big idea: when you first come to the webpage, you'll see a picture of a teenager sitting on the floor surrounded by books. Each book has the name of one of the site's existing pages, and when users click on a the picture, it takes them to the appropriate page. Is this possible? How hard is it? How would you do it? Is it a good idea?