

# Web Design and Databases

## WD: Class 3: Usability

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Heriot-Watt University

# Last time

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- Pre-production
- Navigation
- Layout
- Writing

# Homework

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- Find 3 websites with clear themes/metaphors
- Discuss these themes, metaphors and use of colour.



MEET THE BAND PRODUCTS ABOUT

# MEET THE BAND

FOR FUN  
ADD A LITTLE *Mexican*



# VIEW OUR PRODUCTS







DAILY  
CUPCAKES

BAKERY  
MENU

FIND A  
STORE

ONLINE STORE ▾

CATERING ▾

GALLERY

ABOUT US ▾

FRANCHISE


search 🔍

855-MBAKERY (855-622-5379)


Returning Customer?

[Log In](#) | [My Account/Reorder](#)

[Shipping Policy](#)

Shopping Bag 

*The Shopping Bag is currently empty*

 [Redeem Online Gift Certificate](#)

Shopping Cart by [Nexternal](#)

Please note our online store packages are only available for nationwide shipping.  
For local pick-up and delivery orders, please call 1.855.MBAKERY  
or click [here](#) for your nearest Magnolia Bakery.  
We do not ship our baked products to any NYC Hospitals.



Cupcakes



Baked Fresh

# RAINY MOOD

Rain makes everything better.

1.9m



Like

100K+



Tweet



Today's music: [Trance Compilation](#)

# Remember

---

- Colours and icons *enforce* a theme
  - E.g. blue and Nasa's space theme
- Colours *aren't a theme* in themselves
- Not all websites have themes but lots use colour for branding (e.g. Apple and white)

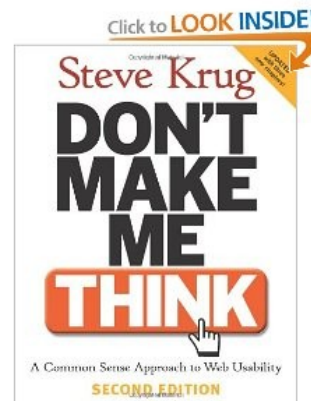
# Today's Class

---

- How to create user-friendly websites  
--- removing the question marks.
- What users do compared to what we think they do?
- Creating a billboard in 5 steps
- Navigation and browsing
- Usability testing



**Material contributions from the book “Don’t make  
me think” by Steve Krug ([www.sensible.com/](http://www.sensible.com/))  
and Rekha Karnata ([connect.humanfactors.com](http://connect.humanfactors.com))**



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“What’s *the most important* thing I should do if I want to make sure my website is easy to use?” according to Krug

# It is not

---

“Nothing important should ever be more than  
two clicks away.”

# It is not

---

“Speak the user’s language.”



# It is not

---

“Be consistent.”

---

These are all important but the most important thing....

*is .....*  
don't make me think.

# Web pages should be self-evident

---

- We should be able to “get it”
  - What it is?
  - How to use it?
- Without expending any effort thinking about it.



# Visitors shouldn't spend their time thinking about:

Welcome to Discountmugs.com! Coffee mugs, coffee cups, shot glasses, glasswares, travel mugs, water bottles, commemorative plates and tiles for promotional gift giveaway.

CALL US TOLL FREE  
(800) 539-1980

- ✓ OPEN 24/7
- ✓ LOW PRICE GUARANTEED
- ✓ FAST TURNAROUND TIME

DISCOUNTMUGS.COM

YOUR NUMBER ONE DRINKWARE SOURCE AND THE COMPANY YOU CAN COUNT ON.

We ship to United States, Canada, and UK

Sample Decorations ▾ Order, Prices ▾ FAQ ▾ Kudos ▾ Digital Art ▾ Policies ▾ Sister Sites ▾

GiftMugs

gift mugs make great coffee mug gifts

Sample Gift Mugs Coffee Mug - Decorations and Designs

Examine: Our pre-designed gift mugs decorations; and/or

Order: You can place your custom order directly from within the individual decoration pages using our full-service order form:

or Use our [One-Click](#) ordering process for orders not requiring any customization nor any other options.

Click on any one of the below 2 links to examine our gift mugs decorations:

1. [Summary Overview](#)  
Comprehensive overview of all gift mugs design groups on a single web page;
2. [Links](#)  
Directly to a specific decoration group.

<http://www.giftmugs.com/sampler/index.htm>

Print Color Chart

Clip Art Gallery

Font Selection

Terms & Condition

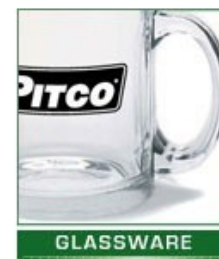
Art Upload

Contact Us

## Wedding Favors, Travel Mugs and Promotional Pens by Discount Mugs

, personalized with your logo by DiscountMugs. Mugs printed for wedding favors, . We offer over 200 shapes & colors of ceramic coffee mugs. Our Coffee mugs are imprinted coffee mugs are kiln fired at 1450f making the logo on the ceramic mug .ction of glassware,wedding favors, party favors, unique favors, travel mugs and number one custom drinkware, pens & favors company. We here at introduce you to our new Promotional Pens category. We have over 96 custom wholesale cheap prices.

## Categories



# Things that make us think:

< OBVIOUS

Jobs!  
*Click*



Jobs

REQUIRES THOUGHT >

Hmm.  
*[Milliseconds of thought]*  
Jobs.  
*Click*



Employment Opportunities

Hmm. Could be Jobs.  
But it sounds like more than that.  
Should I click or keep looking?



Job-o-Rama

From “Don’t make me think” by Steve Krug

< OBVIOUSLY CLICKABLE

Click



Results

Hmm.  
*[Milliseconds of thought]*  
I guess that's a button.  
Click



Results

REQUIRES THOUGHT >

Hmm.  
Is that a button?

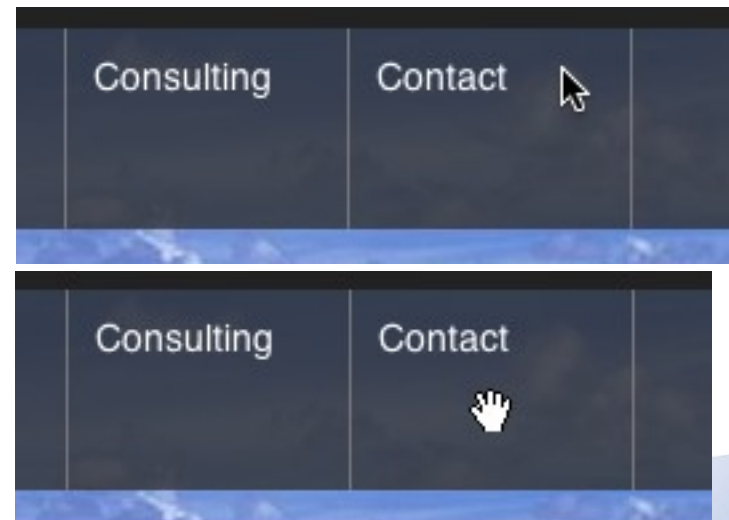


▶ Results

From “Don’t make me think” by Steve Krug



“If you point the cursor at it, it’ll change from an arrow to a pointing hand. What’s the big deal?”



Every question mark adds to our cognitive workload.



---

As a rule, people don't like to  
puzzle over how to use things.

# MOST BOOKSTORE SITES



QUICK SEARCH  Keyword Search



Let's see. "Quick Search."  
That must be the same as  
"Search," right?



QUICK SEARCH  Keyword Search



Do I have to click on that drop-down  
menu thing?

All I know about the book is that it's  
by Tom Clancy. Is Clancy a keyword?

(What *is* a keyword, anyway?)



QUICK SEARCH  Keyword Search

Title  
Author  
Keyword



I guess I have to use the menu.

*Clicks on the arrow*



QUICK SEARCH  Keyword Search

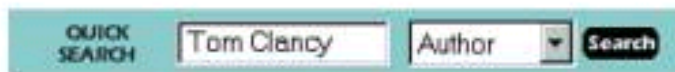
Title  
Author  
Keyword



"Title. Author. Keyword."

OK. I want "Author."

*Clicks "Author"*



QUICK SEARCH  Author Search



*Types "Tom Clancy"*

*Clicks "Search"*



# Amazon.co.uk

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The most important principle of  
web design is  
to work toward eliminating  
question marks.

However, you cannot make everything self-evident.

Sometimes you need to settle for self-explanatory

# Why is this so important?

Oddly enough, not for the reason you usually hear cited:



On the Internet, the competition is always just one click away, so if you frustrate users they'll head somewhere else.

*From "Don't make me think" by Steve Krug*

“I’ve waited ten minutes for this bus already, so I may as well hang in there a little longer.”

# So why bother then?

---

Making pages self-evident is like having good lighting- makes everything seem better = happy user.



# So why bother then?

---

Puzzling over things zaps energy, enthusiasm  
and time = unhappy user.

# Recap from last week

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If web pages are going to be effective, they have to work most of their magic at a glance.



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We're thinking: "Let's write some  
'great literature' (or at least  
'product brochure')"

The user's reality is much closer to: "billboard going by at 60 miles an hour."

# Today's Class

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- How to create websites that are user-friendly-removing the question marks.
- What users do compared to what we think they do?
- Creating a billboard in 5 steps
- Navigation and browsing
- Usability testing

# Activity

- Read article
- Shrestha & Lenz (2007). Eye Gaze Patterns while Searching vs Browsing a website. In Usability News Vol 9(1)



# Discussion points

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1. Left or right-hand side? Which side do users concentrate on?
2. What shape do people use for scanning according to Nielsen?
3. What are the implications of this in terms of important content?
4. What is the purpose of the study? What are the two experimental conditions (Figures 2a/2b)
5. Website with pictures (answer in terms of hotspots and paths)
  - How do people browse?
  - How do people search?
  - How did people search for the non-existent category?
6. Websites with text (answer in terms of hotspots and paths)
  - How do people browse?
  - How do people search?

# Findings

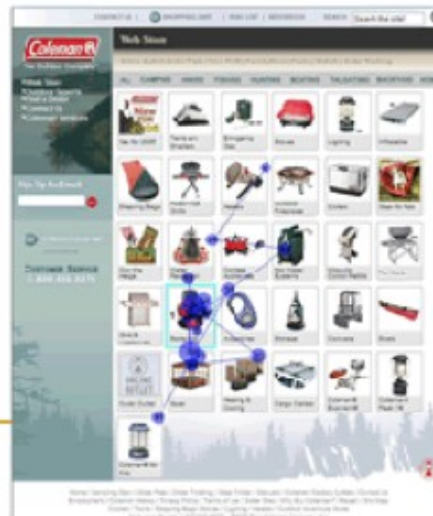
- Text: F-shape for text based web pages (Figure 8) in accordance with Neilson (2006)
  - Browsing more dispersed than search



**Figure 8. Hotspot plot while performing the browsing (left) and searching (right) task for the text page.**

# Findings cont

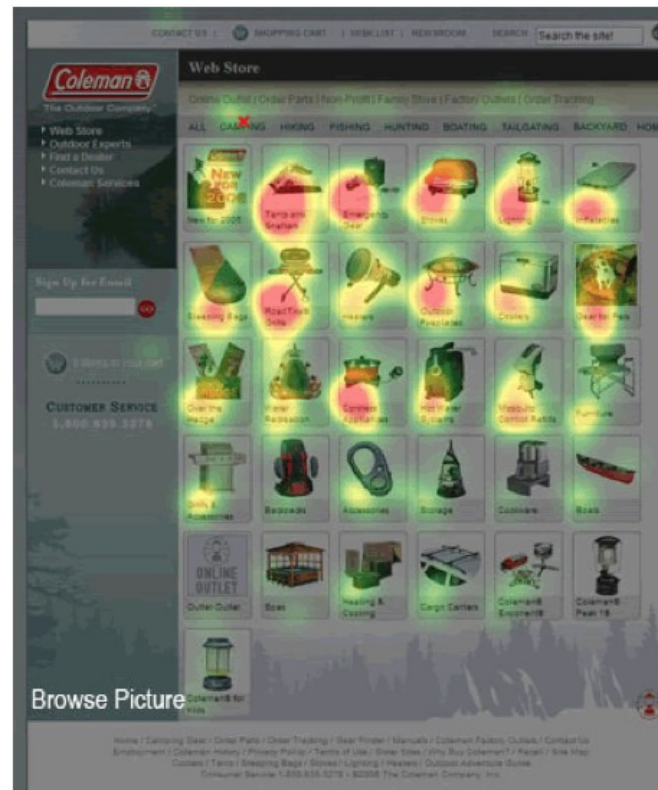
- Pictures: F-shape doesn't hold up here
  - Users are efficient at searching for a category but patterns are unique to an individual (Figures 4 and 5 bottom)





# Findings cont

- Browsing- mostly above the fold (Figure 3)



Takeaway: put your important stuff on the left hand side and above the fold

# Fact of Life #1

---

- Unless we are searching for specific item of information- we don't read pages; we scan them.
  - We ignore sections of websites
  - We're usually in a hurry
  - We don't *need* to read everything.

**Flight** | Hotel | Car | Vacation

☒ Round Trip ☐ One Way [Multiple Destinations](#)

From: (city or airport) To: (city or airport)

☐ Search Nearby Airports

☐ Find Lower Fare +/- 3 Days

☒ Search Specific Dates ☐ My Dates are Flexible

Depart Date: Time:  Anytime

Return Date: Time:  Anytime

Adults: Offer Code (optional):

1 Children

Cabin:  Economy

Search By:

☒ Price ☐ Schedule ☐ Reward Travel

☐ Nonstop Flights Only

[Advanced Search](#)

Children, Country of Purchase...

**FIRST YEAR FREE.**  
Plus, get up to 40,000 bonus miles and enjoy priority boarding.  
[Learn more >](#)

Latest News and Offers	Changed bag rules and optional services	2012 MileagePlus® elite program
	Important Notices	Airport updates: What's changing

**Print Boarding Pass** | **Check Flight Status**

Confirmation or OnePass Number:

**More Check-in options**  
Check-In is available within 24 hours of departure

**Change or View Reservations** [See More](#)

**Find a Reservation by Confirmation Number**

Reservation Type: ☒ Flight ☐ Car

Confirmation: Last Name:

**OnePass Sign In**

OnePass Number: PIN:

☐ Remember Me ☒ Forgot PIN?

**Not a OnePass member? Join Now.**

☐ Receive news and offers in your inbox.  
[Subscribe now >](#)

**Earn up to 40,000 bonus miles.**  
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I want to buy a ticket

Flight Hotel Car Vacation

☒ Round Trip ☐ One Way [Multiple Destinations](#)

From: (city or [airport](#)) To: (city or [airport](#))

☐ Search Nearby Airports

☐ Find Lower Fare +/- 3 Days

☒ Search Specific Dates ☐ My Dates are Flexible

Depart Date: Time:  Anytime

Return Date: Time:  Anytime

Adults:  Children:  Offer Code (optional):

Cabin:  Economy

Search By: ☒ Price ☐ Schedule ☐ Reward Travel

☐ Nonstop Flights Only

[Advanced Search](#)

Children, Country of Purchase...

Search



FIRST YEAR FREE.

Plus, get up to 40,000 bonus miles and enjoy priority boarding.

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Latest News and Offers

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[Airport updates: What's changing](#)

Print Boarding Pass

Check Flight Status

Confirmation or OnePass Number:

Go

More Check-in options

Check-in is available within 24 hours of departure

Change or View Reservations [See More](#)

Find a Reservation by Confirmation Number

Reservation Type: ☒ Flight ☐ Car

Confirmation:  Last Name:  Go

OnePass Sign In

OnePass Number:  PIN:

☐ Remember Me

[Forgot PIN?](#)

[Sign In](#)

Not a OnePass member? [Join Now.](#)

[Receive news and offers in your inbox.](#)  
[Subscribe now >](#)



Earn up to 40,000 bonus miles.

[Learn more >](#)



I want to check my airmiles

Flight | Hotel | Car | Vacation

☒ Round Trip ☐ One Way [Multiple Destinations](#)

From: (city or [airport](#)) To: (city or [airport](#))

☐ Search Nearby Airports

☐ Find Lower Fare +/- 3 Days

☒ Search Specific Dates ☐ My Dates are Flexible

Depart Date:  Time:

Return Date:  Time:

Adults:  [Children](#) Offer Code (optional):

Cabin:

Search By: ☒ Price ☐ Schedule ☐ Reward Travel

☐ Nonstop Flights Only

[Advanced Search](#)

Children, Country of Purchase...

Search



FIRST YEAR FREE.

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Latest News and Offers

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[Important Notices](#)

[2012 MileagePlus® elite program](#)  
[Airport updates: What's changing](#)

Print Boarding Pass

Check Flight Status

Confirmation or OnePass Number:

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[Change or View Reservations](#) [See More](#)

[Find a Reservation by Confirmation Number](#)

Reservation Type: ☒ Flight ☐ Car

Confirmation:  Last Name:  [Go](#)

OnePass Sign In

OnePass Number:  PIN:

☐ [Remember Me](#) ☒ [Forgot PIN?](#)

[Sign In](#)

Not a OnePass member? [Join Now.](#)

[Receive news and offers in your inbox.](#)  
[Subscribe now >](#)



Earn up to 40,000 bonus miles.  
[Learn more >](#)

# Fact of life #2

---

- We don't make optimal choices. We satisfice.
  - We don't choose the best option – we choose the first reasonable option.
  - As soon as we find a link that seems like it might lead where we want, we click it.

## Why don't web users look for the best choice?

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- We're usually in a hurry
- "Optimising is hard, and takes a long time. Satisficing is more efficient" (Gary Klein)
- There's not much of a penalty for guessing wrong
- Weighing options may not improve our chances



# Finally

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- Guessing is more fun
  - Less work
  - If you're right it's faster
  - Introduces an element of chance - serendipity

# Fact of life #3

---

- We don't figure out how things work. We muddle through.
- What users actually do :
  - glance at each new page
  - scan some of the text,
  - click on the first link that catches their interest or vaguely resembles the thing they're looking for.
- There are usually large parts of the page that they don't even look at.

# Summary: what users do

---

1. We scan not read
2. We don't choose the best option – we choose the first reasonable option
3. We muddle through- there are usually large parts of the page that they don't even look at.

---

If people manage to muddle through.....  
.....does it really matter whether they get it?

- Muddling tends to be inefficient and error-prone
- If they get it:
  - Better chance they'll find what they're looking for.
  - Understand the full range of what your site has to offer
  - You have a better chance of steering them where you want them to go
  - They'll feel smarter and more in control

# Today's Class

---

- How to create websites that are user-friendly-removing the question marks.
- What users do compared to what we think they do?
- Creating a billboard in 5 steps
- Navigation and browsing

# What's a girl to do?

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- If your audience is going to act like you're designing billboards, then design great billboards.

# Billboard Design

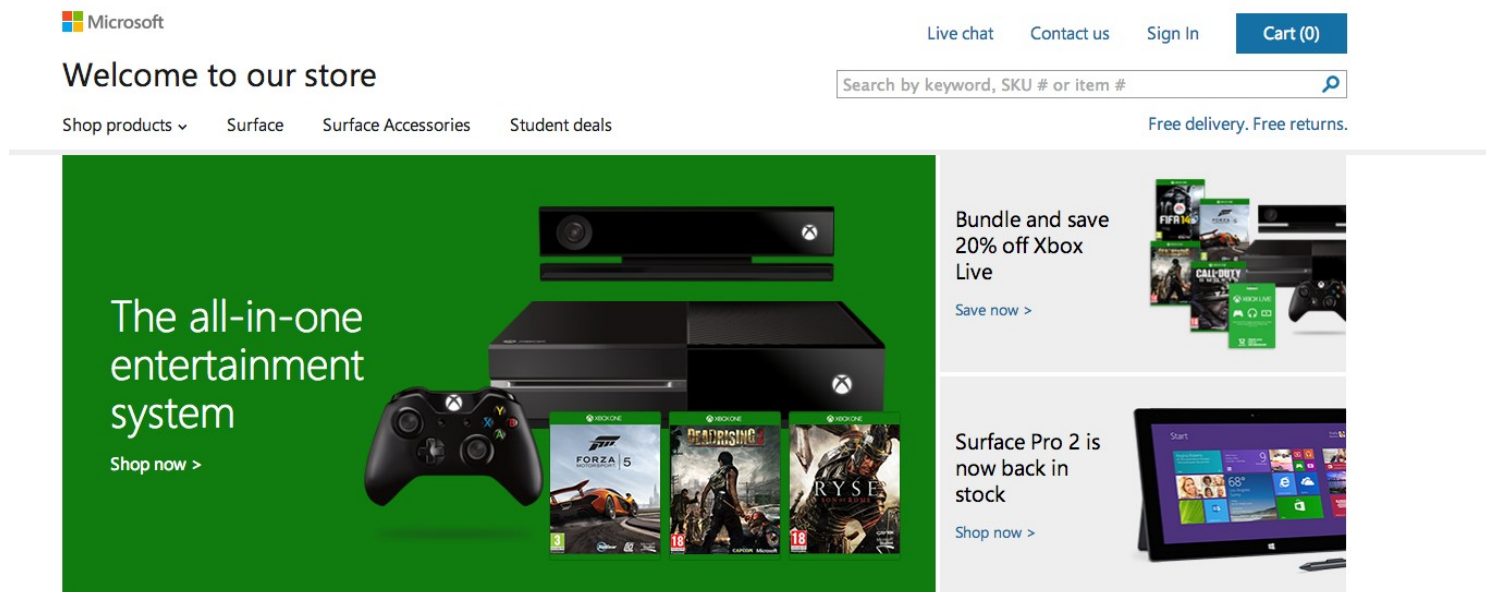
---

1. Create a clear visual hierarchy
2. Take advantages of conventions
3. Break up pages into clearly defined areas
4. Make it obvious what's clickable
5. Minimize noise



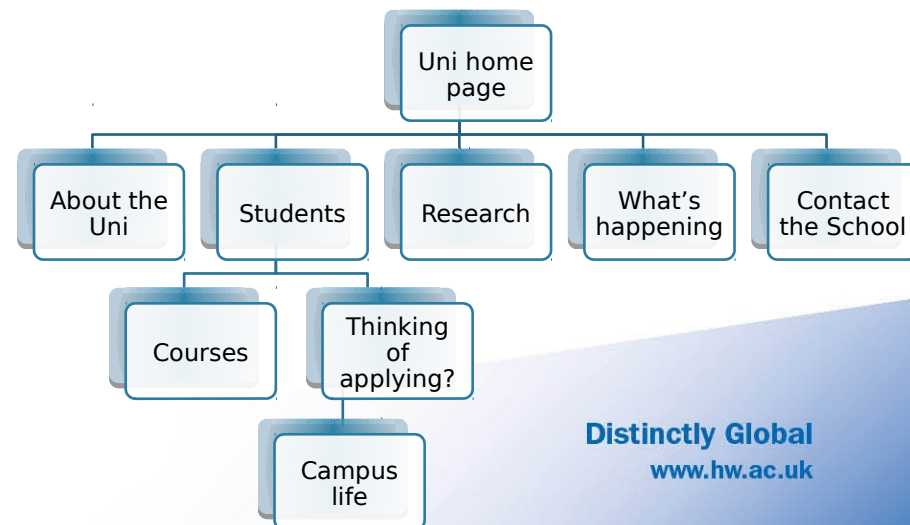
# 1. Visual Hierarchy

- Design pages for scanning:
  - The more important something is, add more visual weight to it (see last class notes)
  - Don't put important stuff on the right hand side or below the fold



# 1. Visual hierarchy cont..

- Things that are related logically are also related visually.
- From your Information Architecture:
  - group things that are similar together under a heading and display them in a similar style,
  - display categories on the same level of your IA in a similar way,
  - put groups of items in a clearly defined area.



**THE BIG YELLOW SELF STORAGE**

0131 453 5769  
Lines open 8am-8pm weekdays, 8am-6pm Sat & 10am-4pm Sun

Get some space in your life

Boxes Etc. Self Storage Blog Find a Store Quote & Reserve Online Specialist Wine Storage What is Self Storage

Elements in same level of the IA are visually the same



Call us now to chat through your requirements: **0800 783 4949**

**You can talk to us online now**

Our live chat offers free, specialist help and advice.

Start Chat

**Want us to call you?**

Just enter your phone number here

Phone number

Call me

We will endeavour to call you back within 24 hours

All contact info are kept in one area

Home > Find a store > Edinburgh

Store The benefits of self storage How self storage works Quote & Reserve Online Hints and help

## Big Yellow Self Storage Edinburgh

★★★★★ (93 customer reviews)

### Big Savings, better value

Our special offers make Big Yellow even more affordable. In addition if you find a better quote we'll happily match it.

Find out more

**50% off  
for up to  
8 weeks**

To get a quote for self storage at Edinburgh, click on the button below

Get an online quote

To reserve self storage at Edinburgh, click on the button below

Reserve online now

### The only company to think of everything :

- ✓ All rooms individually alarmed
- ✓ Open 7 days a week
- ✓ Purpose Built Building

Big Yellow self storage in Edinburgh is conveniently located for the following areas for domestic, business and student self storage: Edinburgh, West Lothian, Fort Kinnaird, Juniper Green, Barnton, Midlothian, Kirkliston, Balerno, Newbridge, Ratho, South Gyle, Merchiston, Gorgie, Slateford, Dalry, Hermiston, Sighthill, Falkirk, Cumbernauld, Livingston, West Hales, Calder Road

0131 453 5769 Lines open 8am-8pm weekdays, 8am-6pm Sat & 10am-4pm Sun



2 Bankhead Avenue  
Sighthill  
Edinburgh  
EH11 4HD

T: 0131 453 5769  
F: 0131 442 5839

Manager: John Laffey

Written Directions

### Reception opening hours

Monday to Friday:	8am - 6pm
Saturday:	9am - 6pm
Sunday:	10am - 4pm

We offer free unlimited access during our reception opening hours. Extended Access (5am-11pm) is also available 7 days a week upon payment of a small additional 4 weekly administration fee.

## 2. Take advantage of conventions

Take advantage of conventions-  
things users are familiar with.

- They are useful: help users move from one site to the next easily
- Reassuring sense of familiarity
- Don't fall into the trap: don't reinvent the wheel!
- Innovate when you get a "wow" from your friends- otherwise stick to conventions

**'I swear to God that America will never dream of security or see it before we live it and see it in Palestine, and not before the infidel's armies leave the land of Muhammed, peace be on him.'** Osama bin Laden, Page 3

PRICE 35P

# THE SCOTSMAN

MONDAY 9 OCTOBER 2001  
Scotland's National Newspaper

■ US and Britain bomb Afghanistan ■ Cruise missiles rain on Taliban ■ Fate of British journalist unclear

## War against terrorism begins

**Chorus of blasts ushers in conflict**

**LIVE**

**AFGHANISTAN**

**AMERICA STRIKES BACK**

**U.S. LAUNCHES MILITARY ACTION AGAINST TALIBAN**

**NBC**

**NCE PLANES IN THE U.S. FOR ANTI-TERRORISM OPERATION**

**War on Terrorism**

**Northern Alliance rejoices as news of attacks spreads**

**News in brief**

**Railroad collapse**

**Center drugs warning**

**Killing goes on attack**

**Weather**

Edinburgh, rain and clouds in 5-2 • Weather: 21 • Business: 17-22 • 8-10, Harpings and Deaths: 15 • Crosswords: 22 and 52 page 15



# Conventions?

John Lewis

Hello Dr hassle, Not you? | My Wish List | My John Lewis

John Lewis Insurance | What's new | Our shops | Gift List | Customer services

Search Keyword, product code, shop name Go

Your basket  
0 items - £0.00

Checkout

Home & Garden | Electricals | Women | Men | Beauty | Baby & Child | Toys | Sport & Leisure | Gifts | Special Offers | Shop by Brand

FREE STANDARD UK DELIVERY ON ORDERS OVER £30 | FREE CLICK & COLLECT FROM OUR SHOPS | INTERNATIONAL DELIVERY | NEVER KNOWINGLY UNDERSOLD



## FIT KIT

Achieve your goals at home  
with the latest equipment >

### This week's highlights

- > New in beauty
- > Home storage
- > Sports accessories

### Furniture Clearance

Furniture Clearance  
continues

### Appliance offers

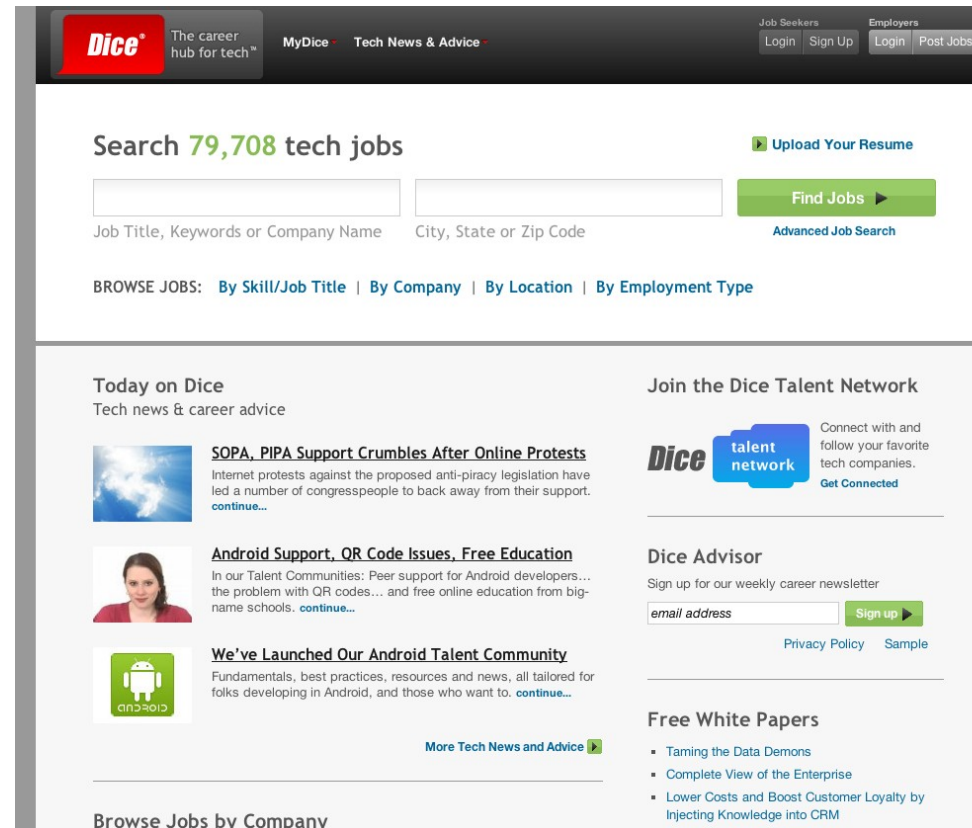


### New in womenswear



### 3. Break up pages into clearly defined areas















- Divide the page into clearly defined areas
- Allows users to decide quickly which areas of the page to focus on and which areas they can safely ignore.



The screenshot illustrates the Dice website's layout, which is organized into several distinct, clearly defined areas:

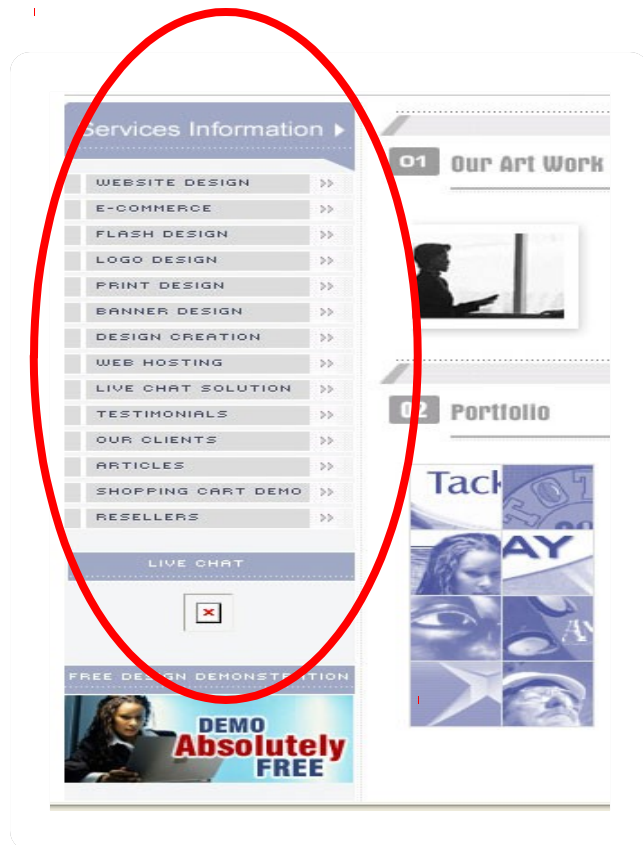
- Header:** Features the Dice logo, tagline "The career hub for tech™", navigation links for "MyDice" and "Tech News & Advice", and user options for "Job Seekers" (Login, Sign Up) and "Employers" (Login, Post Jobs).
- Search Section:** Promotes "Search 79,708 tech jobs" with input fields for "Job Title, Keywords or Company Name" and "City, State or Zip Code", a "Find Jobs" button, and a link to "Upload Your Resume".
- Browse Jobs:** Offers filtering options: "By Skill/Job Title", "By Company", "By Location", and "By Employment Type".
- Today on Dice:** A section for "Tech news & career advice" featuring three articles with images and headlines:
  - SOPA, PIPA Support Crumbles After Online Protests**: Internet protests against the proposed anti-piracy legislation have led a number of congresspeople to back away from their support. [continue...](#)
  - Android Support, QR Code Issues, Free Education**: In our Talent Communities: Peer support for Android developers... the problem with QR codes... and free online education from big-name schools. [continue...](#)
  - We've Launched Our Android Talent Community**: Fundamentals, best practices, resources and news, all tailored for folks developing in Android, and those who want to. [continue...](#)
- Join the Dice Talent Network:** Encourages users to "Connect with and follow your favorite tech companies." with a "Get Connected" button.
- Dice Advisor:** Promotes a "Sign up for our weekly career newsletter" with an "email address" input field and a "Sign up" button. It also includes links for "Privacy Policy" and "Sample".
- Free White Papers:** Lists several papers:
  - Taming the Data Demons
  - Complete View of the Enterprise
  - Lower Costs and Boost Customer Loyalty by Injecting Knowledge into CRM
- Footer:** Includes a "Browse Jobs by Company" link and the "Distinctly Global" logo with the website URL "www.hw.ac.uk".

# 4. Make it obvious what's clickable

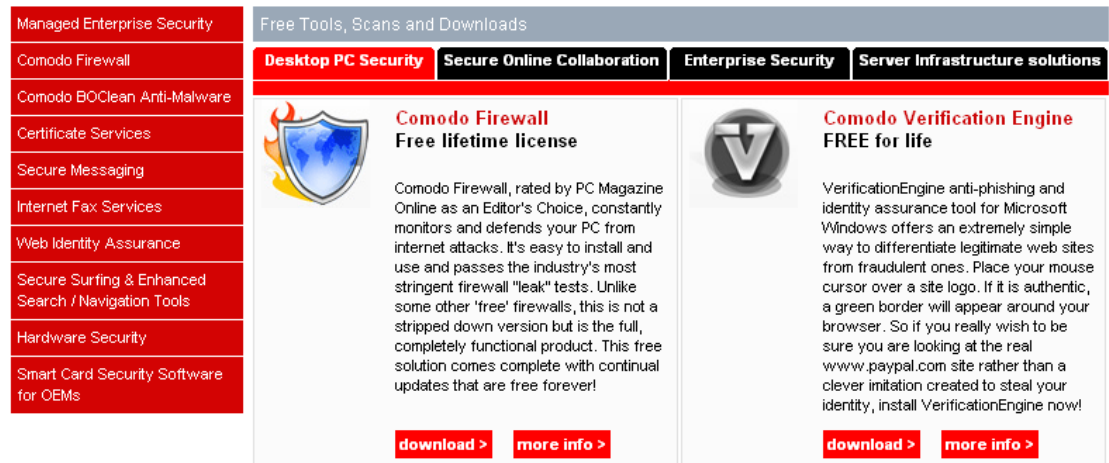
	<p><u>Cookworks Compact Food Processor.</u> 423/4690 <a href="#">...more detail</a></p> <p><i>Also available Up to 3yrs Replacement Product Care £20 - £29.99. (883/3516) £6.99</i></p>	<p><b>£ Less Than Half Price</b></p> <p><b>£19.99*</b></p> <p>Was £49.99</p>	<p> <a href="#">compare</a></p>
<div> <div>  <p>Currently out of stock for delivery</p> </div> <div>  <p>Reserve it now</p> </div> <div> <p><a href="#">Check stock in your area</a></p> <p><a href="#">Buy or Reserve &gt;</a></p> </div> </div>			
<p>★★★★☆ (60)</p>			
	<p><u>Kenwood FP120 Compact Food Processor - White.</u> 420/0442 <a href="#">...more detail</a></p> <p><i>Also available Up to 3yrs Replacement Product Care £30 - £39.99. (883/2414) £8.99</i></p>	<p><b>£ Save Over £5.00</b></p> <p><b>£29.45*</b></p> <p>Was £34.99</p>	<p> <a href="#">compare</a></p>
<div> <div>  <p>Currently out of stock for delivery</p> </div> <div>  <p>Reserve it now</p> </div> <div> <p><a href="#">Check stock in your area</a></p> <p><a href="#">Buy or Reserve &gt;</a></p> </div> </div>			
<p>★★★★★ (253)</p>			
	<p><b>Argos Value</b></p> <p><u>Argos Value Range Food Processor.</u> 423/5345 <a href="#">...more detail</a></p> <p><i>Also available Up to 3yrs Replacement Product Care £20 - £29.99. (883/3516) £6.99</i></p>	<p><b>£24.99</b></p>	<p> <a href="#">compare</a></p>
<div> <div>  <p>Currently out of stock for delivery</p> </div> <div>  <p>Reserve it now</p> </div> <div> <p><a href="#">Check stock in your area</a></p> <p><a href="#">Buy or Reserve &gt;</a></p> </div> </div>			
<p>★★★★☆ (25)</p>			
	<p><u>Argos Value Range Food Processor.</u> 423/4683 <a href="#">...more detail</a></p>	<p><b>£ Half Price</b></p> <p><b>£12.99*</b></p> <p>Was £26.99</p>	<p> <a href="#">compare</a></p>

# 5. Minimize noise

## Minimize background noise and busy-ness



Spacing between links



High contrast colours like red and black together



# Oh and don't forget....

The art of writing for the web- see last week's slides.

Welcome to Helen Hastie's Homepage



INTERACTION LAB
HERIOT WATT

my **LinkedIn** profile


Helen Hastie  
hf Hastie

**hf Hastie** Parlane to be presented at the EC Language Technology Showcase days to be held in March 2012 in Luxembourg.  
12 days ago · reply · retweet · favorite

**ProfSteveYoung** @parlanceproject Having a great meal at la Garrigue for kick-off meeting.  
[pic.twitter.com/8r7rg5fj](http://pic.twitter.com/8r7rg5fj)  
44 days ago · reply · retweet · favorite

**hf Hastie** Excellent discussion during the #ParlanceProject kick-off meeting this week @HeriotWattUni. 3 years of exciting collaboration ahead!  
44 days ago · reply · retweet · favorite

**hf Hastie** Heriot Watt is

### About me

I am a Lecturer in the Computer Science department and a member of in the [Interaction Lab](#) in the School of [MACS](#) (Mathematical and Computer Sciences) at [Heriot Watt University](#). Before that I was at [Informatics](#) at the [University of Edinburgh](#) and before that I was at [ATL, Lockheed Martin](#), NJ, USA and [AT&T Research Labs](#), NJ U.S.A.. My research interest include evaluation of spoken dialogue systems and evaluation, Natural Language Generation and Health Informatics. I am keen to be involved in any knowledge transfer activities including consulting. I am also [career's officer](#) for Computer Science students at Heriot-Watt. Finally, I am a member of the [Royal Society of Edinburgh, Young Academy](#). The School of Mathematical and Computer Sciences (MACS) is a flagship School of Heriot-Watt University, leading in research and research-led teaching. The Department of Computer Science is an active member of the Scottish Informatics and Computer Science Alliance (SICSA), a major Scottish Funding Council supported research pool. MACS wins extensive national and international support for its research, with projects advancing frontiers in telecommunications, safety critical systems, virtual characters, games design, image processing, data mining and automated mathematics. It was a partner in the FP6 projects eCircus and HUMAINE and is a partner in the FP7 projects LIREC, eCute and CLASSIC. The Intelligent Systems Laboratory, where this project is based within the Department of Computer Science, is involved in agent based and knowledge based systems, affective computing, artificial neural networks and evolutionary computing for a range of applications such as computational neuroscience, computer based diagnosis and classification, intelligent user interfaces and fault-tolerant robotics. Staff members Dr Helen Hastie is a lecturer in the School of MACS at HWU and a member of their Interaction Lab, where her current research includes statistical Natural Language Generation for the FP7 CLASSIC project. She was previously a lead member of engineering in the Artificial Intelligence Lab at Lockheed Martin in New Jersey, U.S.A. where she managed large, multi-site projects with customers such as DARPA, US Marine Corps and the CIA. She successfully managed and inspired a team of engineers, completing key deliverables across entire project life cycles on schedule and within budget. Prior to this she worked at AT&T Research Labs, New Jersey, U.S.A. where she received 2 patents for her work on multi-modal city guides and worked on automatic evaluation for the COMMUNICATOR challenge. She has extensive experience running experiments and evaluations of spoken dialogue systems. She holds a PhD from the Centre of Speech Technology at

# Billboard Design: Summary

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1. Create a clear visual hierarchy
2. Take advantages of conventions
3. Break up pages into clearly defined areas
4. Make it obvious what's clickable
5. Minimize noise
6. Write for the web

# Today's Class

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- How to create websites that are user-friendly-removing the question marks.
- What users do compared to what we think they do?
- Creating a billboard in 5 steps
- **Navigation and browsing**

# The unbearable lightness of browsing

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- No sense of scale
  - num of pages in the site?
- It's hard to know:
  - whether you've seen everything of interest in a site
  - when to stop looking.
  - links that we've already clicked onto display in a different colour (e.g. Google)-- gives us some sense of how much ground we've covered.

# The unbearable lightness of browsing

---

- No sense of direction.
  - There is no up and down in hierarchy – to a more general or more specific level.
- No sense of location.
  - We don't develop a sense of where things are spatially (and where the shortcuts are)

# Purpose of navigation:

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- To help us find whatever it is we're looking for, and
- To tell us where we are.
- It gives us something to hold on to.
- It tells us what's here.
- It tells us how to use the site.
- It gives us confidence in the people who build it.

# Animal, mineral or vegetable

---

- How many times can you expect a user to click to get somewhere?
- Less important is how many but rather how *hard* the choice is.

# Why users like mindless choices?

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- RECAP: Users don't mind a lot of clicks as long as each click is painless and they have continued confidence that they're on the right track.
- Rule of thumb might be something like “ **three mindless, unambiguous clicks equal one click that requires thought.**”

*Make your choices clear*

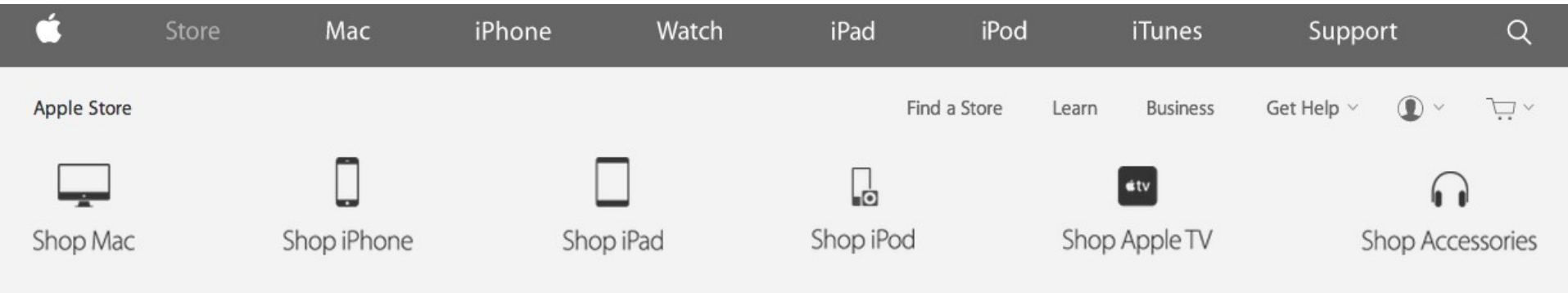


# Street signs and Breadcrumbs

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Designing Navigation: see week 1's slides on Information Architecture.

Make it easy to get around your website



# Web navigation conventions

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- Don't look now, but I think it's following us.....
- Have navigation appear in the same place on every page with a consistent look
  - instant confirmation that you're still in the same site.

# Web navigation conventions

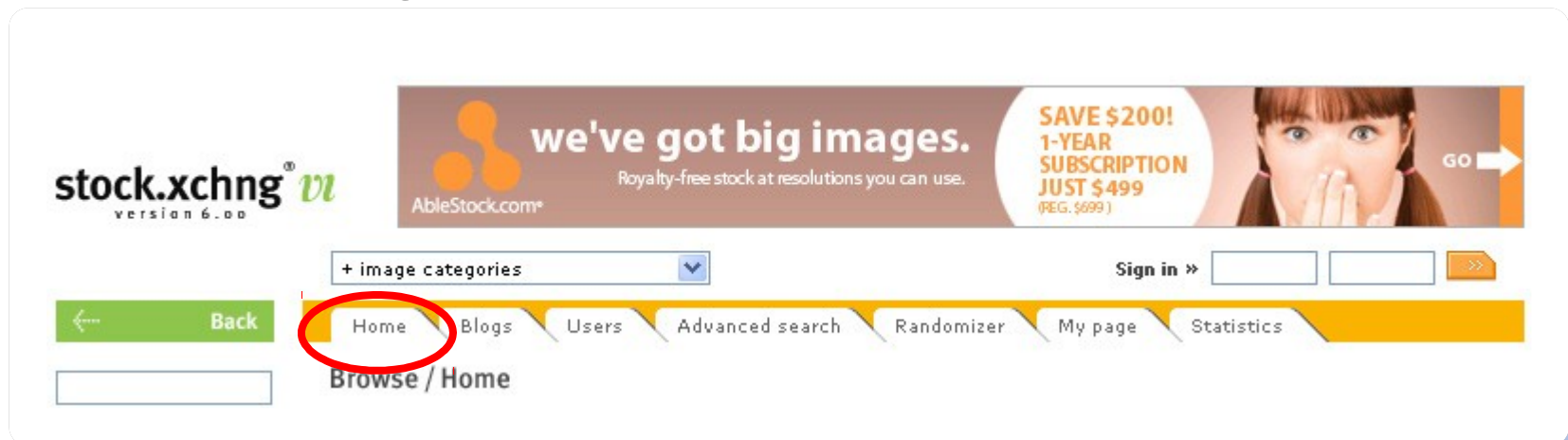
---

- Navigation should include the five elements you most need to have on hand at all times;
  1. Site ID
  2. Utilities
  3. A way to search
  4. Sections
  5. A way home



# 1. Site ID: There is no place like Home

- Having a Home button in sight at all times offers reassurance that no matters how lost I may get, I can always start over.
- Site ID doubles as button that can take you to Home page.



## 2. The Utilities

- Utilities are the links to important elements of the site that aren't really part of the content hierarchy (like help, sitemap etc).



### 3. Search

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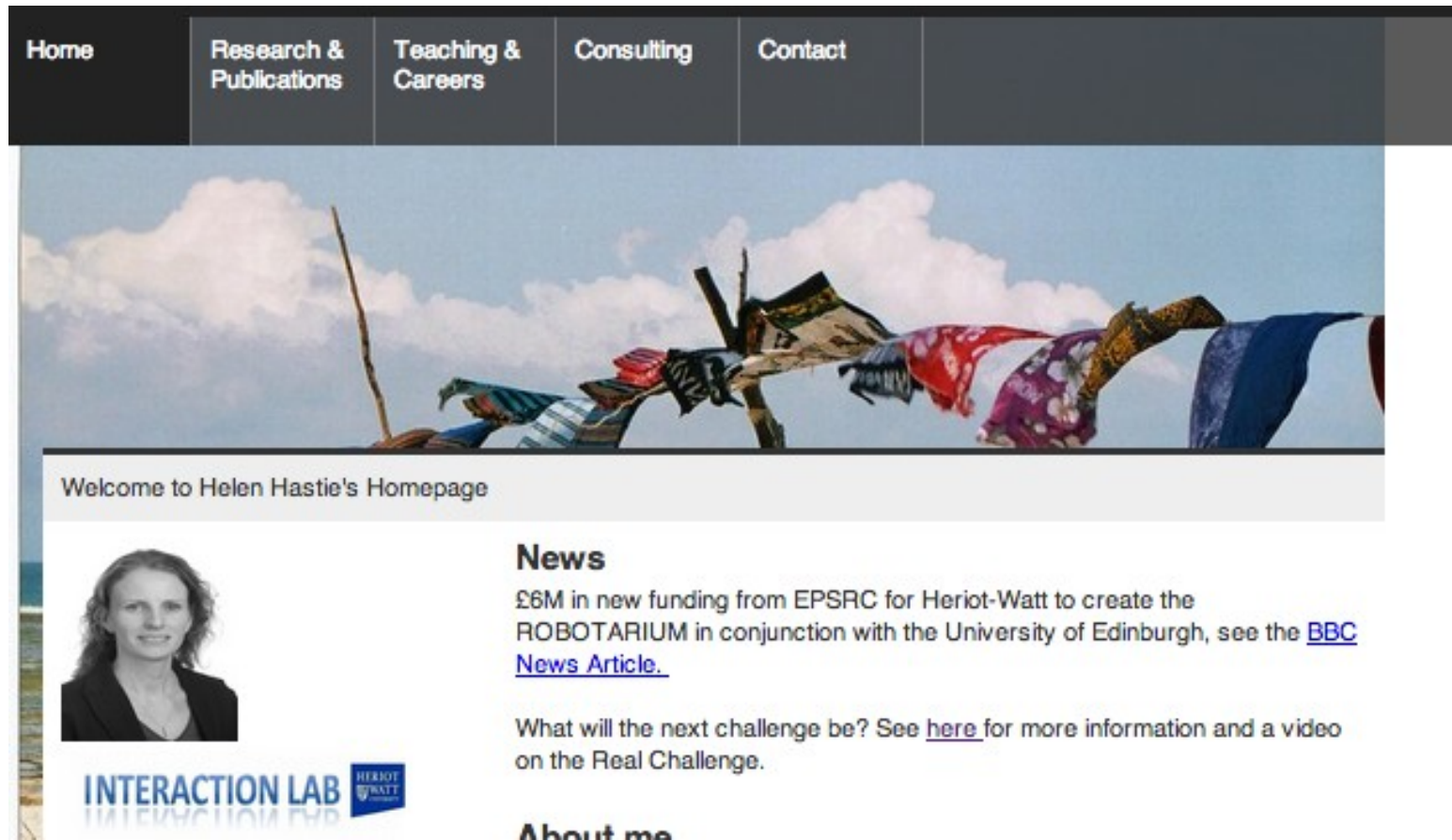
- Unless a site is very small and very well organized, every page should have either a search box or a link to search page (don't worry about implementing search for your coursework).
- Large percentage of users their first official act when they reach a new site will be to scan the page for search option.



You don't need to implement search for your assignment

## 4. Sections

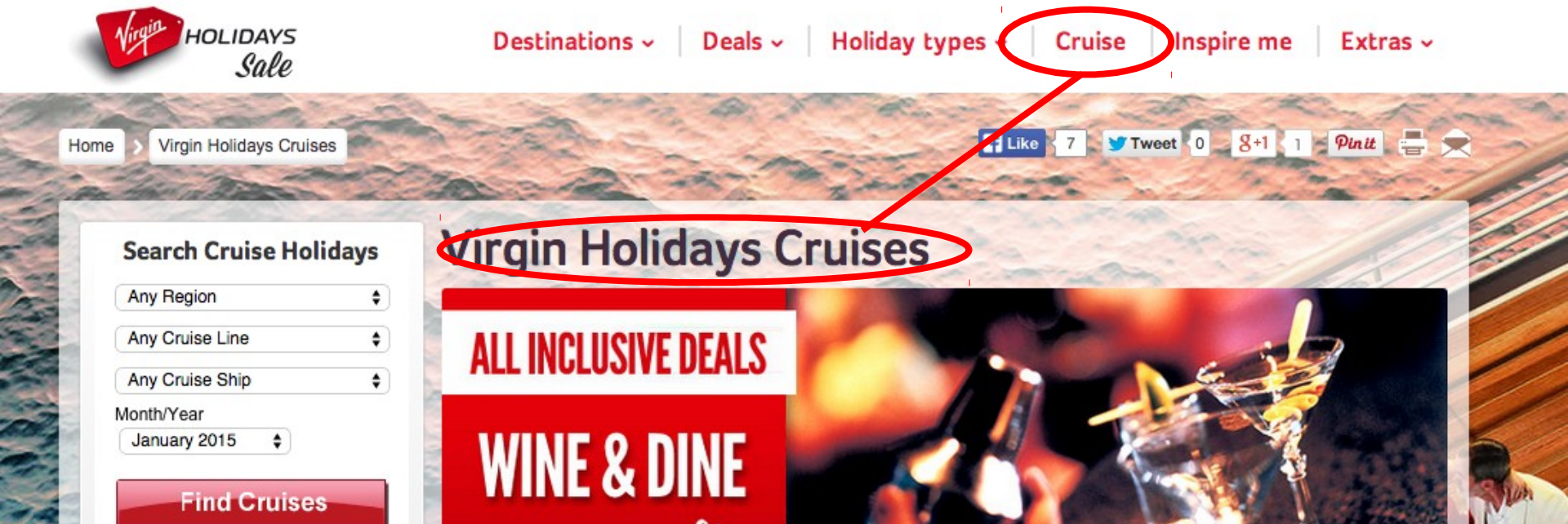
- Primary navigation- are the links to the main headers/sections of your Information Architecture





## 4. cont: make sure the names match

- There are 4 things you need to know about page names:
  - Every page needs a name
  - Name needs to be in right place
  - The name needs to be prominent
  - Name needs to match what I clicked





# 5. A way home: Breadcrumbs

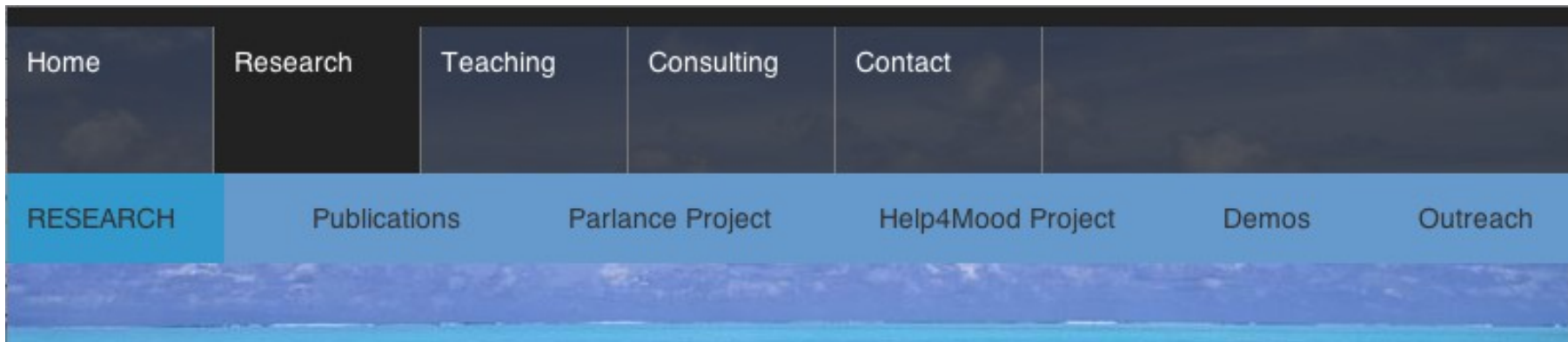
- Put them at the top
- Use > between levels
- Use tiny type
- Boldface the last item.
- Don't use them instead of page name



## 5. Cont Tabs

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- They are self-evident
- They are hard to miss
- They are slick
- They suggest a physical space



# Summary: Web navigation conventions

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- Navigation should include the five elements you most need to have on hand at all times;
  1. Site ID
  2. Utilities
  3. A way to search
  4. Sections
  5. A way home



# Activity: the trunk (boot) test

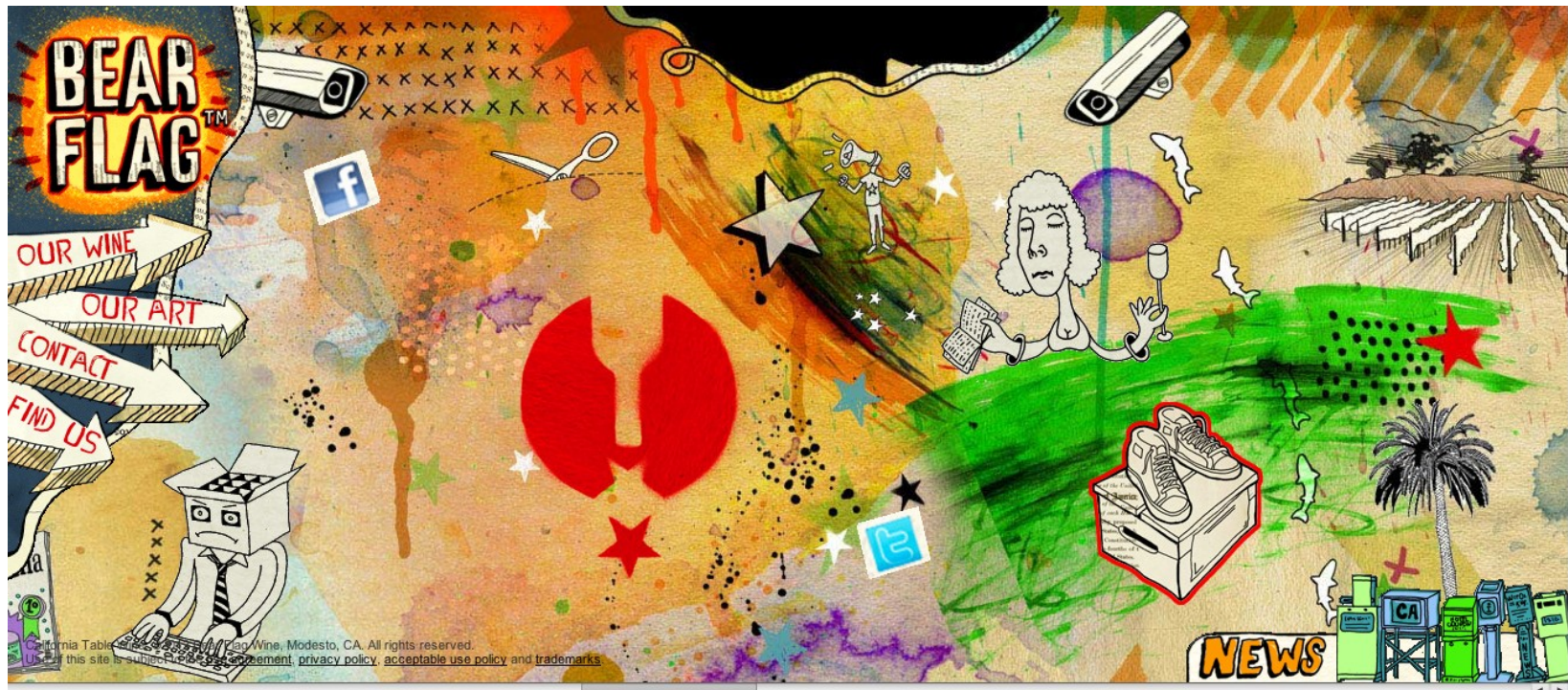
---

- What site is this? (Site ID)
  - What page am I on? (Page name)
  - What are the major sections of the page? (Sections)
  - What are my options at this level? (Local navigation)
  - Where am I in the scheme of things? ("you are here" indicators)
  - How can I search?
- 
- Let's try it for [this website](#)

# Home page navigation can be unique

---

- Section descriptions
- Different orientation
- Everywhere else the same





# Summary: don't make me think!

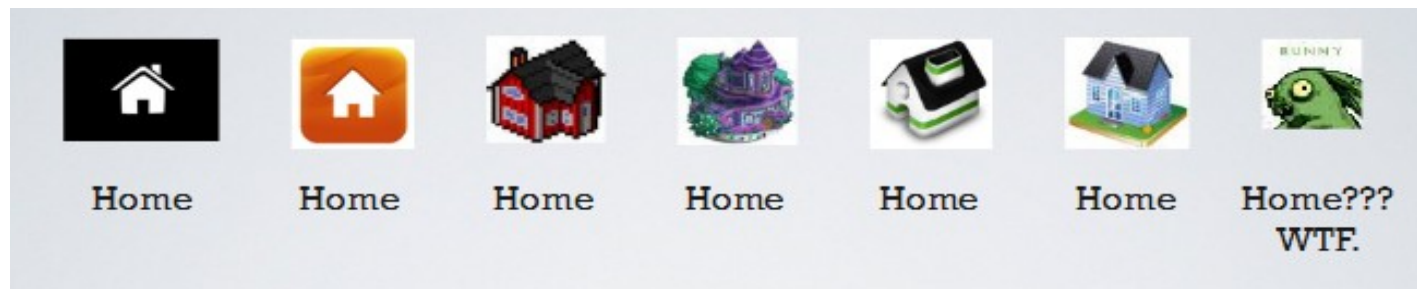
---

- Create a billboard
  1. Create a clear visual hierarchy
  2. Take advantages of conventions
  3. Break up pages into clearly defined areas
  4. Make it obvious what's clickable
  5. Minimize noise
- Lots of clicks is ok as long as they are “easy” clicks
- Make navigation easy

# Remember...

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- Design is not decoration. It is communicating the objective in the clearest, fastest way possible.
- Use knowledge in the world and the head.





# Homework

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- Homework: find 3 bad websites
- Think about how user-friendly they are
- How could they be improved
- Put links to them on the vision discussion board by Sunday 8pm

# Next Time

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<HTML>