

Human computer interaction Lecture 11

KASSYMOVA AIZHAN BAKHYTZHANOVNA, PHD, ASSOCIATE PROFESSOR

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Lesson plan

Visual Design

• Typography

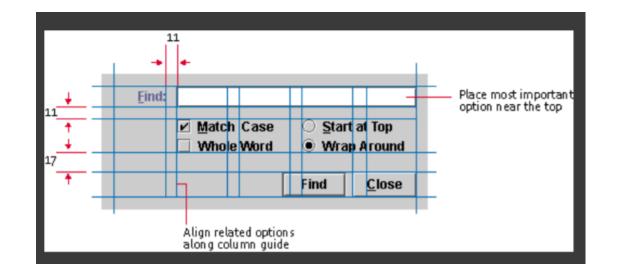
Information Design

- Grids and Grouping, Alignment
- Reading and Navigating

Information design

Grids and Grouping, Alignment

Grid Systems (Java L&F, 2001)



Java Look and Feel Design Guidelines, 2001, http://java.sun.com/products/jlf/ed2/book

Jan Tschichold's Bauhaus Revolution



Grids comprise...

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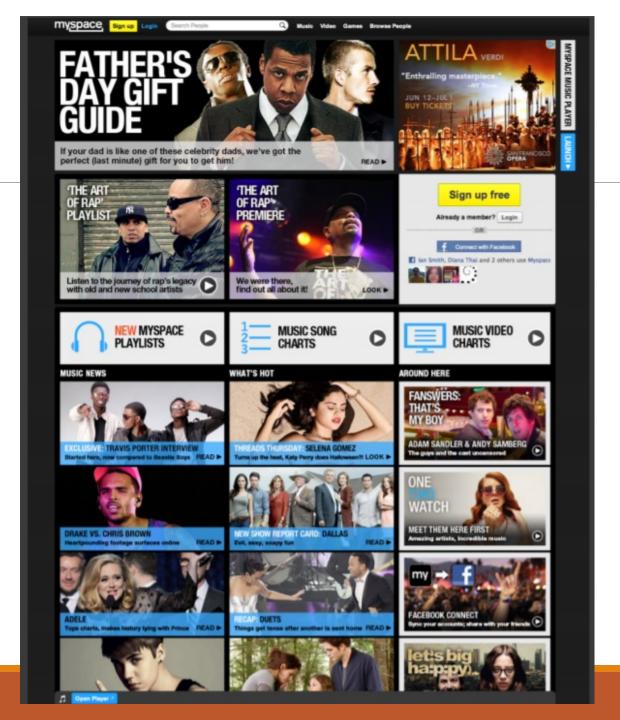
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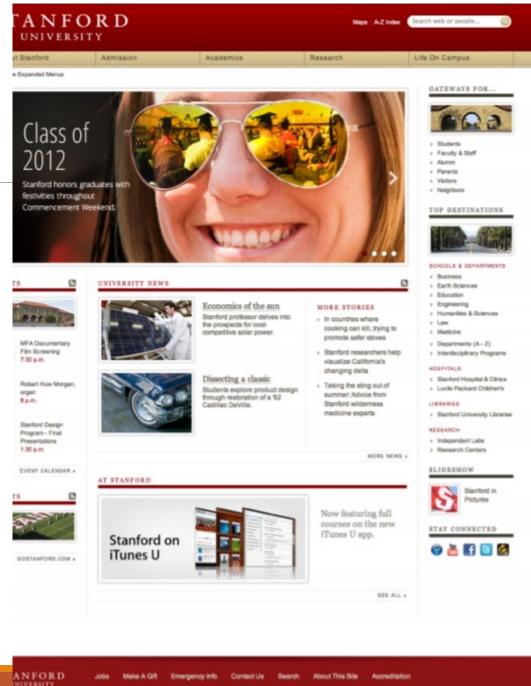
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INIVERSITY

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MICHAEL D. SHEAR If the measure is not thrown out, House Republicans plan Magazine to force a repeal vote, while top officials at the White House are projecting. Obituaries confidence that the justices will rule in their favor. Real Estate

Movies

Music

Television

Weddings /

Celebrations

MULTIMEDIA

Interactives

Photography

TOOLS & MORE

Podcasts

Video

Alorts

Beta 620

Mobile

Learning

Network

NYT Events

NYT Store

Gift.

Corporate

Corrections

Movie Tickets

Theater

Travel

Sunday Review K Interactive: How the Supreme Court Could Rule T Magazine **U.N. Monitors Find**

Vast Devastation in Syrian Village By RICK GLADSTONE 3:16 PM ET Stores were

looted and homes abandoned in Al Heffa, besieged for

> days by Syrian forces, and the smell of death hung in the air, said United Nations monitors. Syrian Liberators, Bearing Toy

Guns 5:45 PM ET MORE NEWS in BP Spill Lawsuit

18 minutes ago Mets Sweep the Rays 6:42 PM ET





Candidates Go Head to Head on Economy By HELENE COOPER and MICHAEL BARBARD 57 minutes ago President Obama acknowledged that the election would turn on the divergence between him and Mitt Romney, who was also in Ohio, on how to achieve economic revival.

Post a Comment | Read (203)

Romney Says Obama's Actions Don't Match Words

Tests Put Cave Art in the Age of Neanderthals By JOHN NOBLE WILFORD

Paintings on cave walls in Spain are far older than previously thought - some of them more than 40,000 years old, scientists said.

Merkel Stresses Limits to Germany's Strength By NICHOLAS KULISH and PALL GEITNER 46 minutes ago Chancellor Angela Merkel told German lawmakers the country cannot prop up the faltering euro zone. Switzerland and Britain Gird Against the Storm 8:05 PM ET Norris: Conspiracy Theories Fly | d Graphic: The Crisis Now

At U.S. Airports, a Building Boom Takes Hold

By JAD MOUAWAD The nation's biggest airports are in the midst of major renovations or expansions that, taken together, amount to some of the largest infrastructure projects in America.

Stanford Gets 110 Years in \$7 Billion Ponzi Case By CLIFFORD KRAUSS 7:36 PM ET Jury Sides With Costner A federal jury had convicted R. Allen Stanford of 13 out of 14 counts of fraud in connection with a global scheme.

> ON THE BLOGS On Part Live Blog on the U.S. Open Bits: Apps I Want to Go Away

> > More Video | Multimedia - Armstrong Seems to **Ready** for Battle By JULIET MACUR 1 minute ago Lance Armstrong, the seven-time Tour de France winner, said he

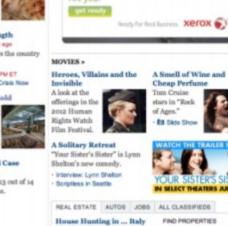
> > > was "exploring

Agency.

all my options" in dealing with

new charges brought by the

United States Anti-Doping



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Sunday Review

News Analysis: Iran's High

Iran has increased uranium

AL9:05 PM ET

CHINA

WILLIAM J. BROAD

Card at the Nuclear

enrichment and is now

bomb grade.

MARKETS +

JAPAN

producing a form close to

Negotiation Table

OPINION »

Qaeda

Kristof: Hugs From Iran |

- Editorial: Jamie Dimon

Greenhouse: Proxy War?

Op-Ed: How Drones Help Al

· Townies: Russian Heart

- Taking Note: Gingrich

iet there fast.

et there first.

Persian Translation

Are you? Ready For Real Business XEFOX





IN SELECT THEATERS JUNE 15

REAL ESTATE AUTOS JOBS ALL CLASSIFIEDS

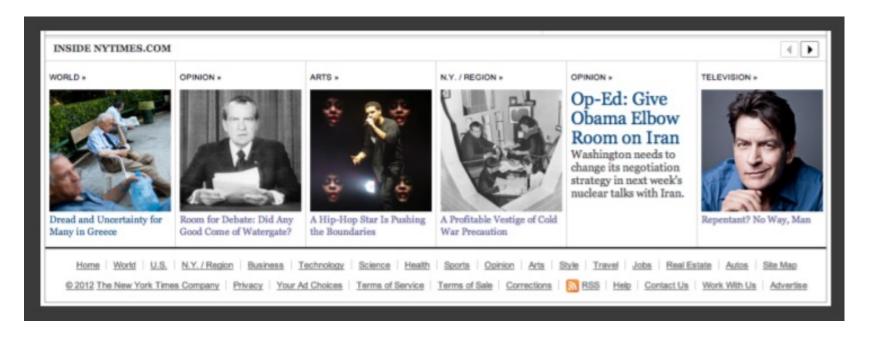


Video Showcase: Real 845 West End Avenue Expansive Pre-War

WORLD U.S. POLITICS NEW YORK BUSINESS DEALBOOK TECHNOLOGY 6 minutes and SPORTS SCHNCE HEALTH ARTS STYLE OPINION assault on the Muslim Brotherhood. Autos Blogs Books Cartoons Egypt 6:37 PM ET Classifieds Crosswords Dining & Wine Education Event Guide Fashion & Style MICHAEL D. SHEAR Home & Garden Jobs Magazine Movies Music House are projecting Obituaries Real Estate Sunday Review T Magazine Television Theater Travel Syrian Village Weddings / Celebrations Stores were looted and MULTIMEDIA homes Interactives abandoned in Photography Al Heffa, Podcasts besieged for Video TOOLS & MORE Alerts Beta 620 Guns 5:45 PM ET Corrections MORE NEWS Mobile Movie Tickets Learning 18 minutes ago Network NYT Events 8:42 PM ET NYT Store Public Editor Theater Tickets VIDEO » **Times Machine** TimesLimited Times Skimmer Times Topics Times Whe SUBSCRIPTIONS Home Delivery flubscriptions



Inside NYTimes.com



Sports moments ago

U.S.



Tiger Woods, playing with Phil Mickelson and Bubba Watson, showed who was in charge with a one-under par 69 in the featured pairing of the first round of the 112th United States Open.

U.S. moments ago	Senate Panel Blocks Rules on Seasonal Jobs By THE ASSOCIATED PRESS
	The vote would delay rules designed to make it more difficult for businesses like seafood processors to exploit foreign workers and to get more Americans into seasonal jobs.
N.Y. / Region moments ago	Parlors Face Age-Limit Bill Over Tanning by Teenagers By ERIC P. NEWCOMER
	Teenagers under 17 would be able to get suntans only the old-fashioned way under a bill working is way through the New York State Legislature.
Opinion	Ground Zero Cancers
moments ago	Adding 50 cancers to the list of illnesses covered by a health fund was the right thing to do because we have an obligation to help those harmed by exposure at ground zero.
Business Day moments ago	Smithfield Foods' Profit Drops on Lower Margins for Pork By THE ASSOCIATED PRESS
	The pork producer's net income fell to 49 cents a share from 59 cents a share last year.
Business Day moments ago	Anything-but-Ordinary Mom Pitches for Chobani Yogurt By STUART ELLIOTT
	Chobani, the market leader in Greek yogurt in the United States, is

advertising its new children's product with a campaign that features the former Olympian Jennie Finch.





Sports moments ago

World »	Business Day »	Opinion »
 New Political Showdown in Egypt as Court Invalidates Parliament 	 Europe Braces for Greek Vote — and Maybe More 	Op-Ed Columnist: Hugs From Iran
 Libya Refuses to Release Hague Staff in Custody Russian Official Apologizes for Threatening Journalist 	 Switzerland and Britain Gird Against the Storm High & Low Finance: As Europe's Currency Union Frays, Conspiracy Theories Fly 	 Editorial: Mr. Dimon on the Hill Op-Ed Contributor: Give Obama Elbow Room on Iran
 U.S. »	Technology »	Arts »
· In the Facebook Era, Reminders of Loss if Families Fracture	Time Inc. to Sell Its Magazines on Apple's Newsstand	• Art Review: Islands Buffeted by Currents of Change
 With Justices Set to Rule on Health Law, 2 Parties Strategize 	 Nokia to Cut 10,000 Jobs and Close 3 Facilities 	 Living in the Past Is a Full-Time Gig
 Church Battles Efforts to Ease Sex Abuse Suits 	 Bits Blog: Google Wants Love and 100 Other Things 	 Critic's Notebook: Heroes, Villains and the Invisible
Politics »	Sports »	Movies »
Obama Says Election Will Shape the Economy for Years	• Mets 9, Rays 6: Mets Get Just Enough Hitting to Sweep the Rays	• Critic's Notebook: Heroes, Villains and the Invisible
 Romney Assails Obama for Favoring Words Over Action 	 Mets Say Wright (and Scorer) Erred 	Movie Review 'Rock of Ages': A Smell of Wine and Cheap
 Campaign Aid Is Now Surging Into 8 Figures 	 Burnett Brings a Steady Presence to the Pirates 	Perfume • Movie Review 'Your Sister's Sister': Solitary Retreat to a Remote Island Leads to Many Mix-Ups
N.Y. / Region »	Obituaries »	Theater »
· Behind Those Cool Squirts in Summer, Many Plumbers	F. Herbert Bormann Dies at 90; Helped Discover Acid Rain	Theater Review: Drawing New Lines in a Romantic Triangle
 After Century-Long Wait, Stage Is Set for Man Daring to Cross the 	Threat Henry Hill, Mobster and Movie 	 Two Journeys Into O'Neill, via E- Mail
	Inspiration, Dies at 69	

When creating templates, design for the longest text block

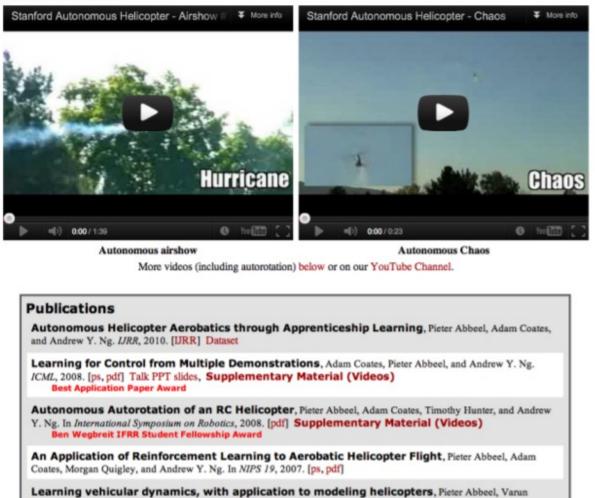
In general, left-aligned text is faster to skim (in places that read left-to-right)

STANFORD UNIVERSITY AUTONOMOUS HELICOPTER

Overview

The goal of this project is to push the state-of-the-art in autonomous helicopter flight: extreme aerobatics under computer control.

Featured Videos



Ganapathi, and Andrew Y. Ng. In NIPS 18, 2006. [ps, pdf]

Alignment guides the eye, reducing clutter

• Avoid slight misalignments

they undermine your ability to beacon organization.

- We 'automatically' notice patterns and deviations
- So when you deviate from a pattern do so strategically
- And use visual proximity and scale to convey semantic information

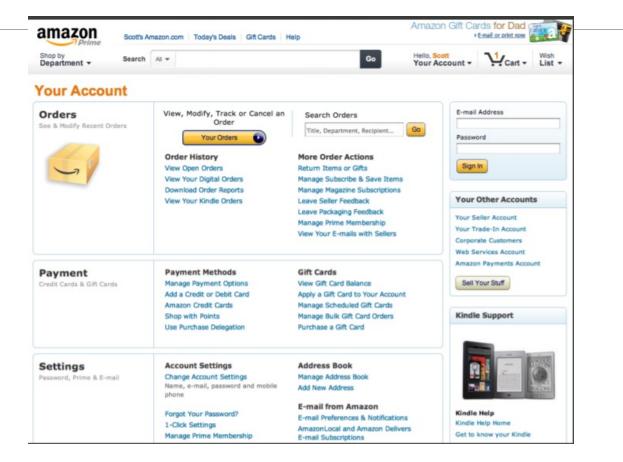
When to use top, left, and right alignment

Add an address: right aligned labels

		-
Add an address		
Full Name:		
Address Line1:	Street address, P.O. box, company name, c/o	
Address Line2:		
City:	Apartment, suite, unit, building, floor, etc.	
State/Province/Region:		
ZIP:		
Country:	United States \$	
Phone Number:	United states +	
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Save & Add Payment Method	Save & Continue	
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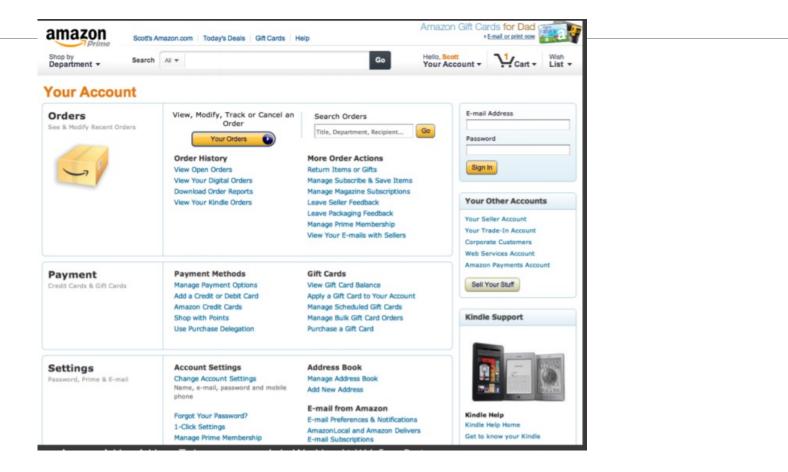
Amazon, Add an Address. To learn more, see Luke Wroblewski, Web Form Design

Account: Left-aligned labels



Amazon, Add an Address. To learn more, see Luke Wroblewski, Web Form Design

Sign-in: top-aligned labels



Amazon, Add an Address. To learn more, see Luke Wroblewski, Web Form Design

A brief word on color

- Pay attention to it
- Design in grayscale first
- Keep luminance values from grayscale when moving to color

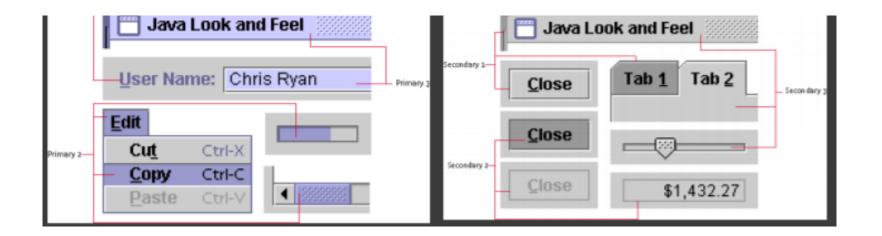
Amazon in Grayscale

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Color (Java L&F)



- Six colors in two groups
- Clean, consistent look
- Easy on eyes (mostly gray)

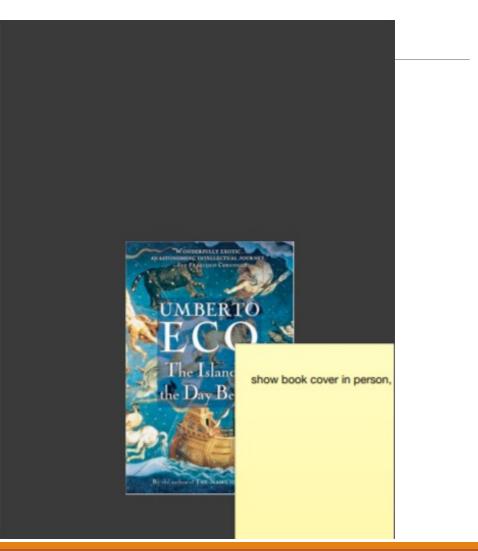
Make space, guide the eye

I take pride withal in my humiliation, and as I am to this privilege condemned, almost I find joy in an abhorrent salvation; I am, I believe, alone of all our race, the only man in human memory to have been shipwrecked and cast up upon a deserted ship.

THUS, WITH UNABASHED conceits, wrote Roberto della Griva presumably in July or August of 1643.

How many days had he been tossed by the waves, feverish surely, bound to a plank, prone during the hours of light to avoid the blinding sun, his neck stiff, strained unnaturally so as not to imbibe the water, his lips burnt by the brine? His letters offer no answer to this question: though they suggest an eternity, the time cannot have been more than two days, for otherwise he would never have survived the lash of Phoebus (of which he so poetically complains), he, a sickly youth, as he describes himself, a creature condemned by a natural defect to live only at night.

He was unable to keep track of time, but I believe the sea grew calm immediately after the tempest swept him from the deck of the *Amaryllis*, on that makeshift raft a sailor had



Grids: To learn more...

- Kevin Mullet and Darrell Sano, Designing Visual Interfaces
- Luke Wroblewski, Web Form Design
- Jan Tschichold, The New Typography

Informavores!

Information Scent

• Can people figure out how to get to the information they want?

• Do they realize what options are available?

How can you detect poor scent?

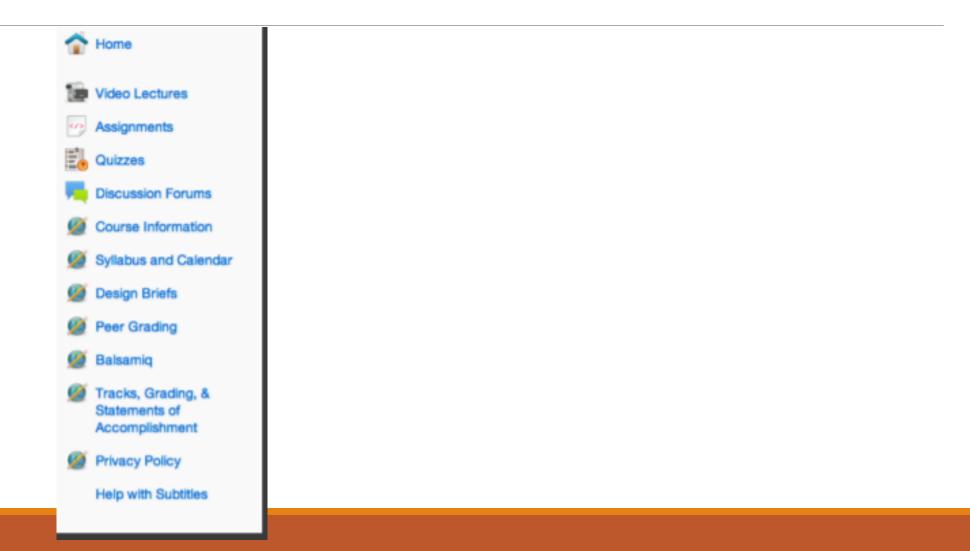
- Flailing
- Low confidence
- Back button

Low-Scent Navigation



- Surprising categories
- Short links
- Hidden navigation
- Icons provide little additional information

Generic Icons Rarely Help

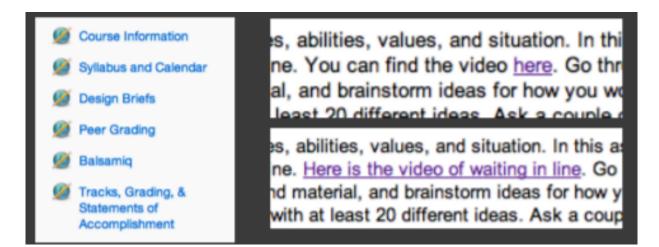


Icons help when...

- they facilitate repeat recognition
- when you know what something looks like but not what it's called
- Good redundant coding can help

Improving scent: multi-word links

- With specific, recognizable terms
- Trigger words, not "clever" terms
- This also helps accessibility



Improving scent: Speaking Block Navigation

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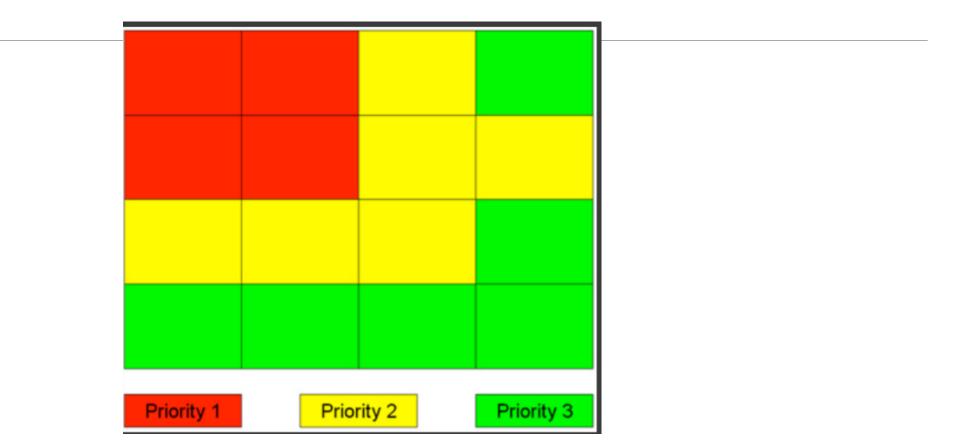
Does location matter?

Eyetracking



Image courtesy Ed Cutrell, Microsoft Research

Design for glanceability



The Poynter Institute www.poynter.org/extra/eyetrack2004

Prime Real Estate

- Above the fold
- Where people expect
 - Where other pages put similar content
 - Not where ads usually

People are more than happy to scroll if they think they'll be rewarded

How People Read Online

End of lecture