Designing for Ajax

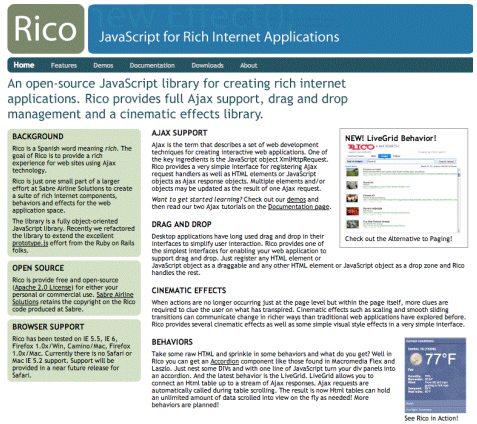
Principles and Patterns for Designing Rich Internet Applications

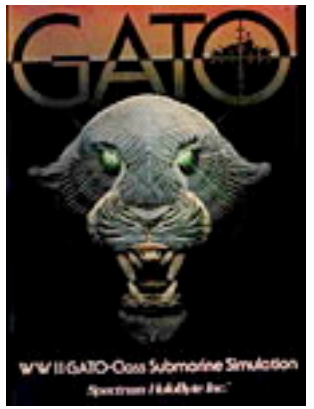
Bill W. Scott, Y! Ajax Evangelist

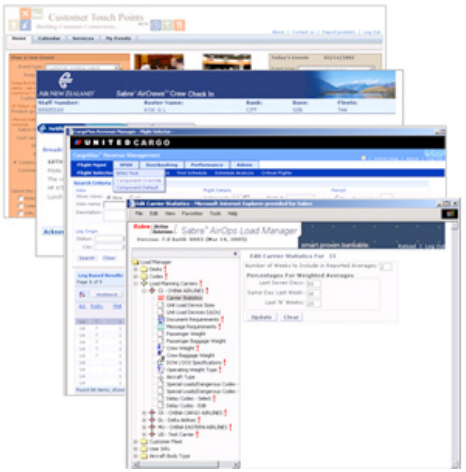
bscott@yahoo-inc.com

Background

- Games, research, science, military, biz
- Apps, frameworks, widget sets
- Developer, designer
- Object-oriented background
- Software architect, user experience manager
- Yahoo! Ajax Evangelist, Yahoo! Patterns Curator
- http://looksgoodworkswell.com





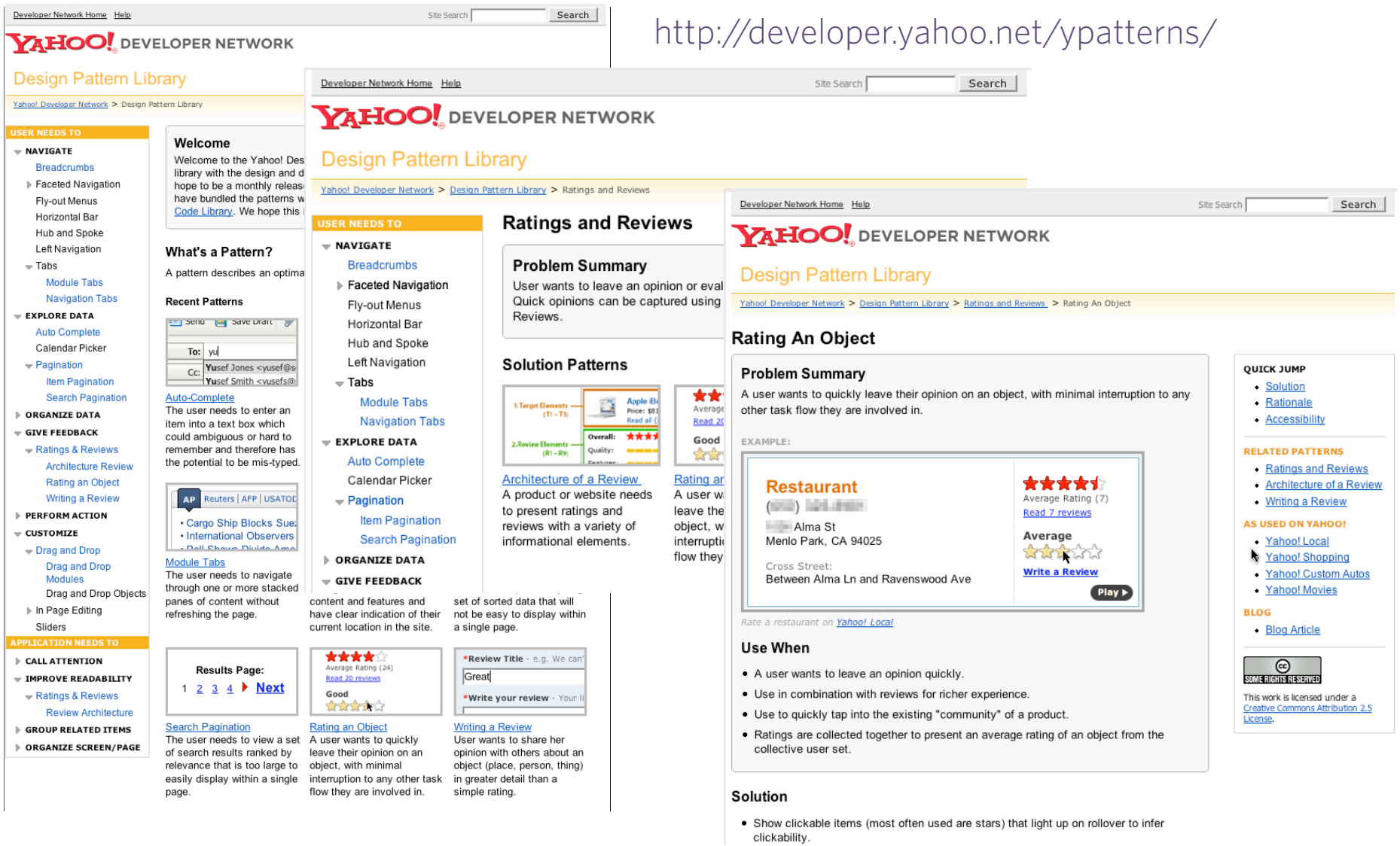


Ajax at Yahoo!

- Acquisition of Oddpost led to mission to evangelize *Ajax goodness throughout Yahoo*
- Summer 2005 - Ajax Evangelism Team Founded
  - Doug Crockford - JSON, Y! DHMTL Architect
  - Iain Lamb - Founder of Oddpost/Y!Mail Beta
  - Me

Yahoo! Pattern Library Release

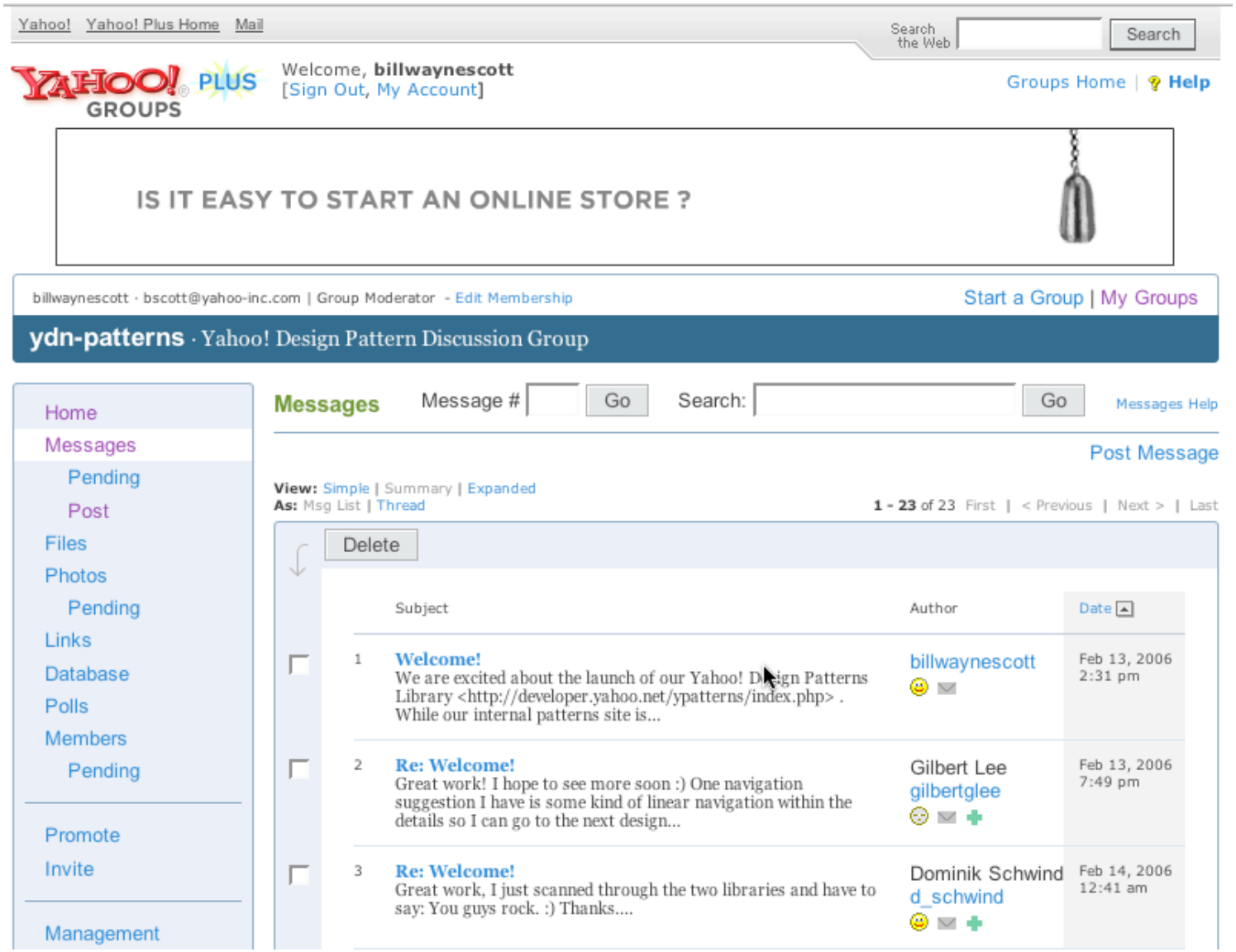
http://developer.yahoo.net/ypatterns/



http://yuiblog.com

Yahoo! Patterns Discussion Group

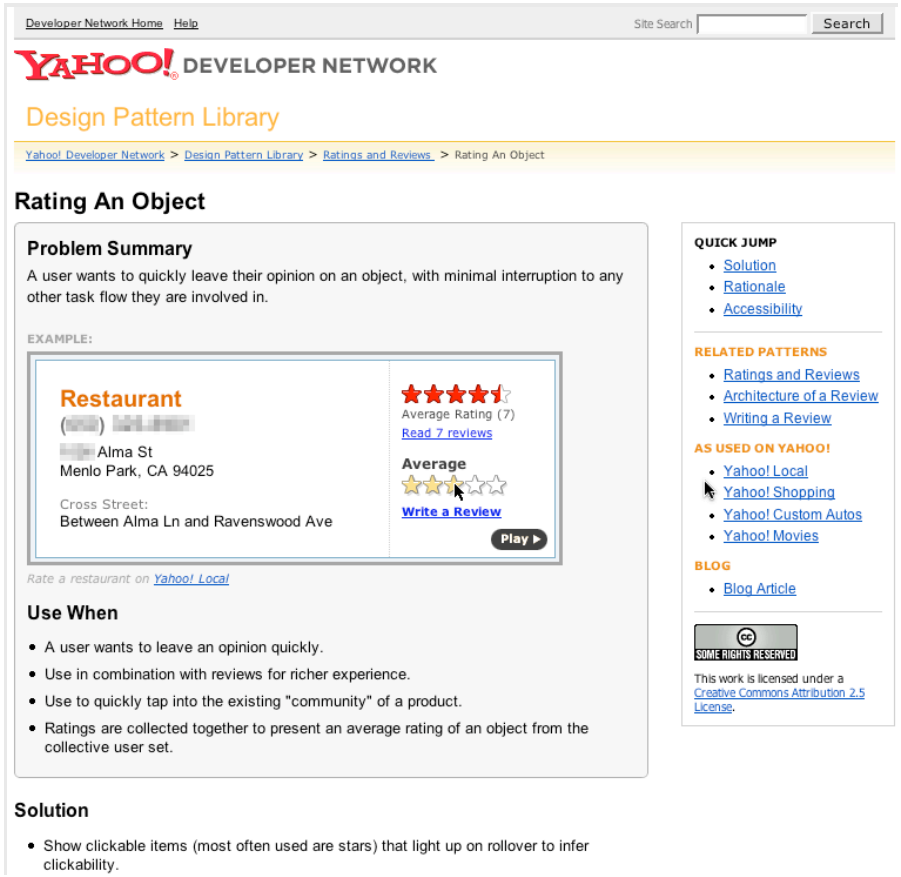
http://groups.yahoo.com/group/ydn-patterns/



Breadcrumbs. Module Tabs. Navigation Tabs. Auto Complete. Pagination. Item Pagination. Search Pagination. Ratings and Reviews. Architecture of a Review. Rating an Object. Writing a Review. Drag and Drop. Drag and Drop Modules. Transition. Dim. Brighten. Cross Fade. Contract. Expand. Fade In. Fade Out. Move. Self-Healing. Slide. Highlight. Invitation. Cursor Invitation. Drop Invitation. Tool Tip Invitation. Hover Invitation. Links. Alphanumeric Links. Text Links.

Drag and Drop. Drag and Drop Modules. In Page Editing. In Page Custom Editing. Direct State Editing. Grid Cell Editing. Inline Custom Editing. Inline Tag Editing. Popup Custom Editing. Slide-out Custom Editing. Inline Text Editing. Persistent Portals. Inline Reordering. Indication. Busy Indication. Cursor Busy. In Context Busy. In Context Progress. Inline Status. Character Counter. Auto Complete. Balloon Error Tip. Deferred Content Loading. Dynamic Goal. Narrowing Choices. Refining Search. Live Search. Dynamic Filter. Invitation. Cursor Invitation. Drop Invitation. Tool Tip Invitation. Hover Invitation. Detail Zoom. Opacity Focus. Configurable Module - Faceplate. Configurable Module - Flip It. Configurable Module - Inline Configure. Configurable Module - Slide Out Drawer. Slide Out. Flip. Opacity Fade. Endless Scrolling. Expandable Paging Boundary. Fresh Content. Hover Detail. In Place Drill Down. Inline Assistant. Inline Validation. Validate Then Suggest. On Demand Refresh. Periodic Refresh. Resizable Modules. Scrolling Modules. Auto Save. In Context Tools. Remembered Collection. Remembered Preferences. Auto Form Fill. Rating an Object. Transition. Brighten Transition. Cross Fade Transition. Dim Transition. Expand Transition. Fade In Transition. Fade Out Transition. Flip Transition. Move Transition. Self-Healing Transition. Collapse Transition. Slide Transition. Rich Internet Object. Available. Selected. Identifiable Object.

Y! Patterns as a Platform (Web 2.0)

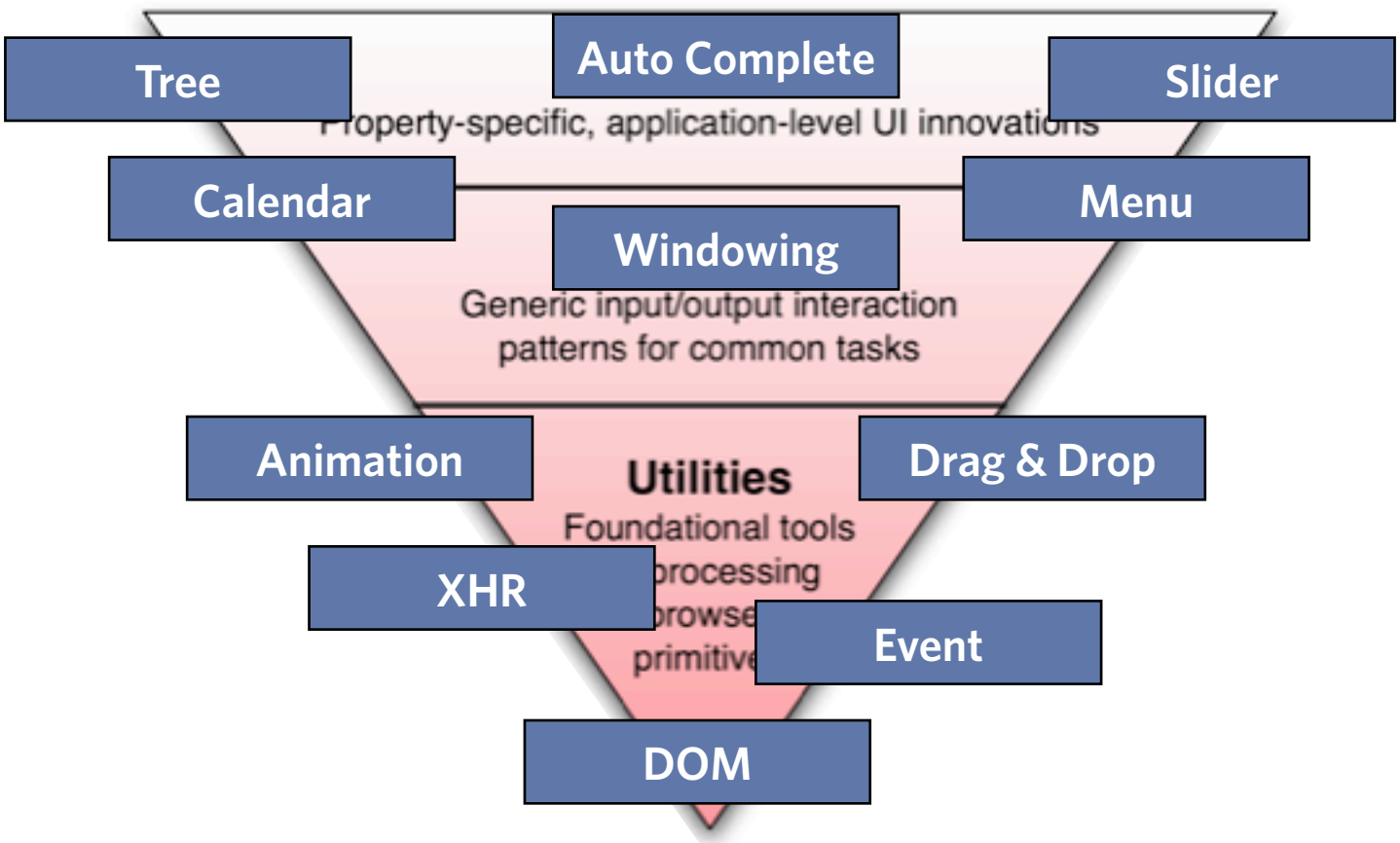


Yahoo! service responds with a JSON representation of a pattern. Allows anyone to mashup the patterns into a corporate pattern library

Pattern Service

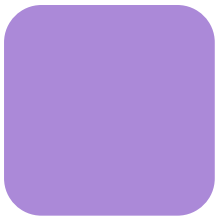
Corporate Branded Pattern Site (mashup)

Yahoo! UI Library



Designing for Ajax

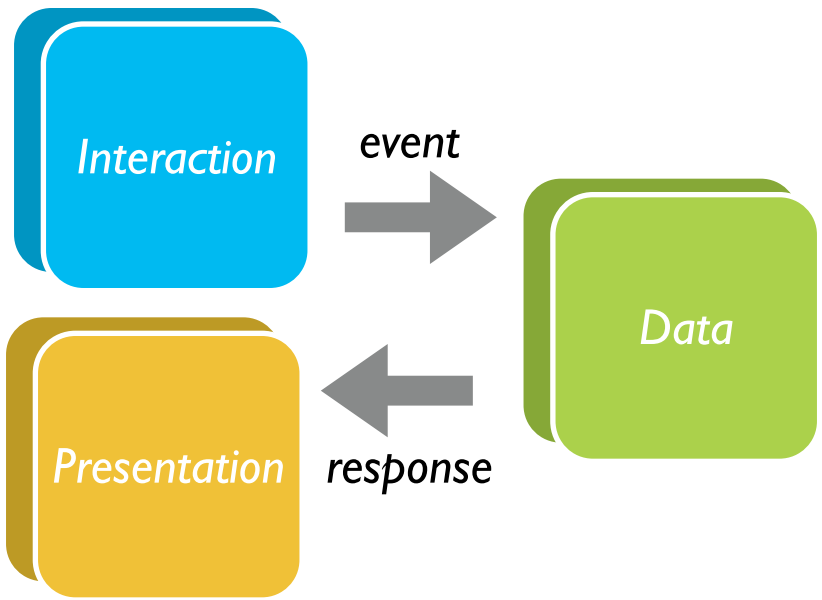
- **Richness**
  What is richness?
- **Ajax Patterns**
  DNA of an Ajax Pattern
- **Principles**
  Principles for Ajax Design



Richness

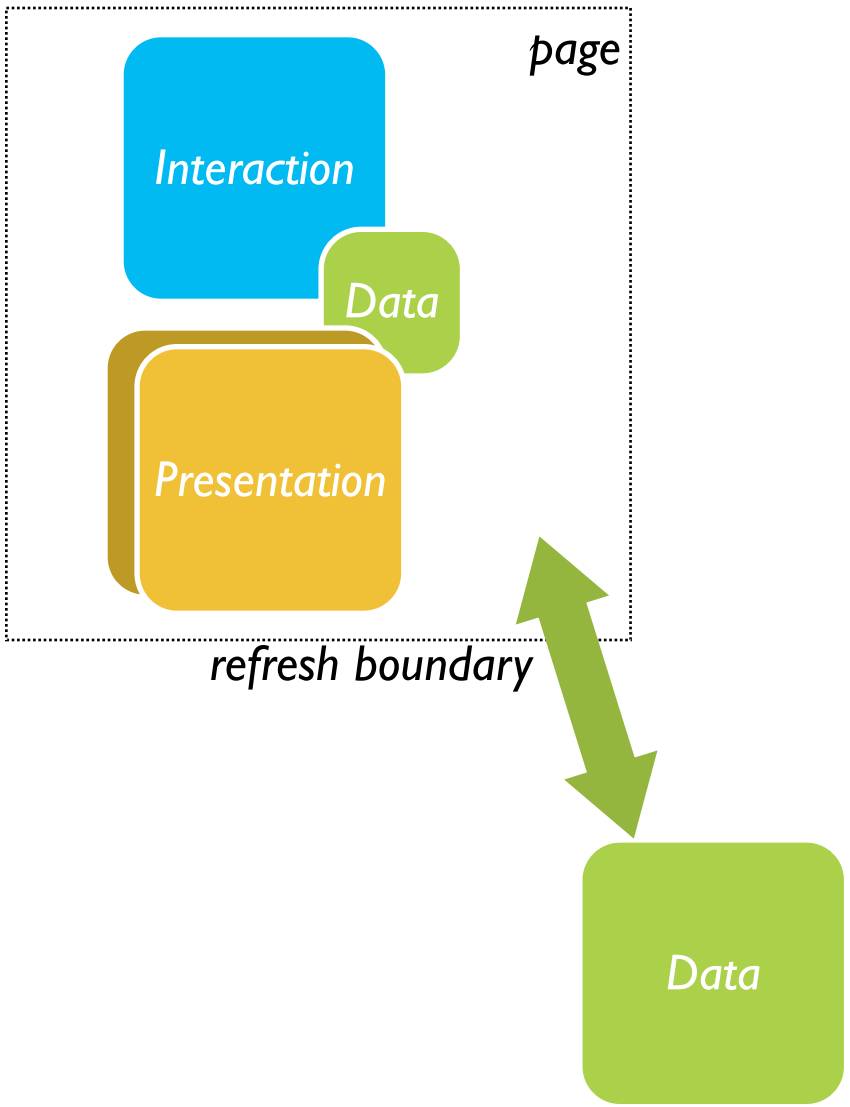
Defining Richness: Web in 3D

- Interaction Dimension
- Data Dimension
- Presentation Dimension

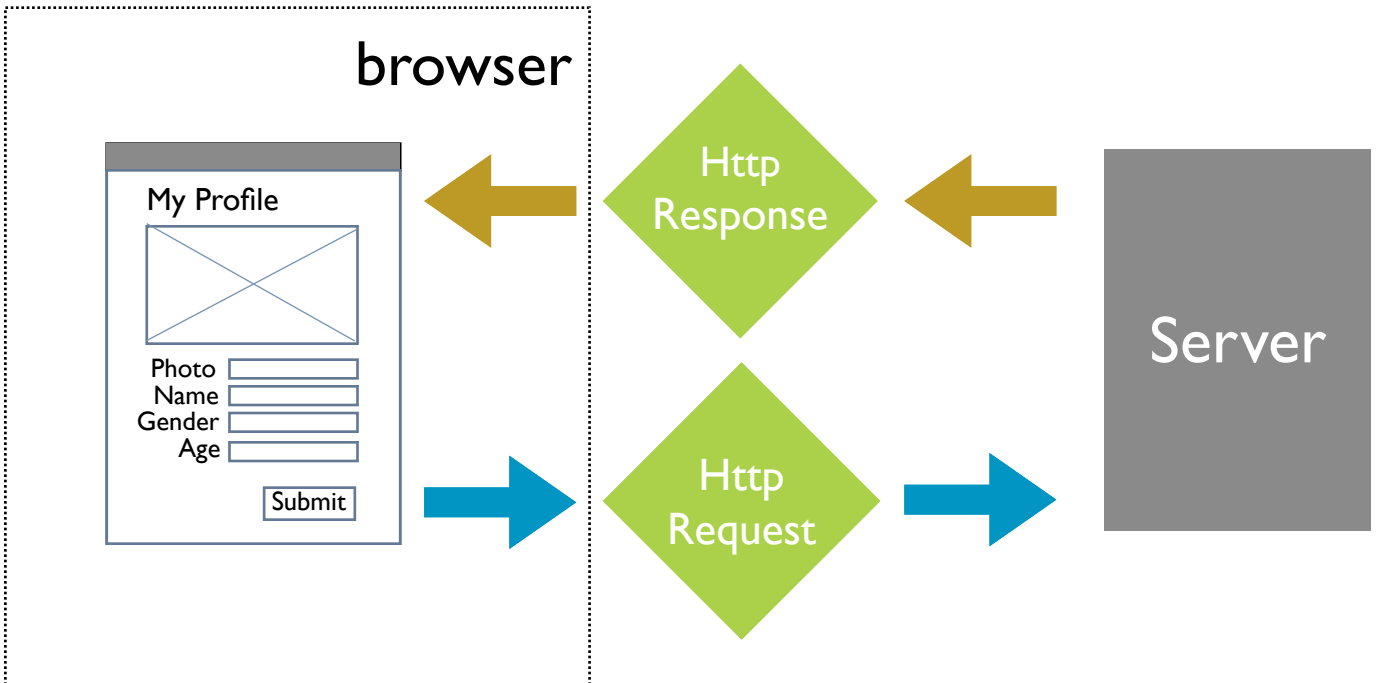


Classic Web

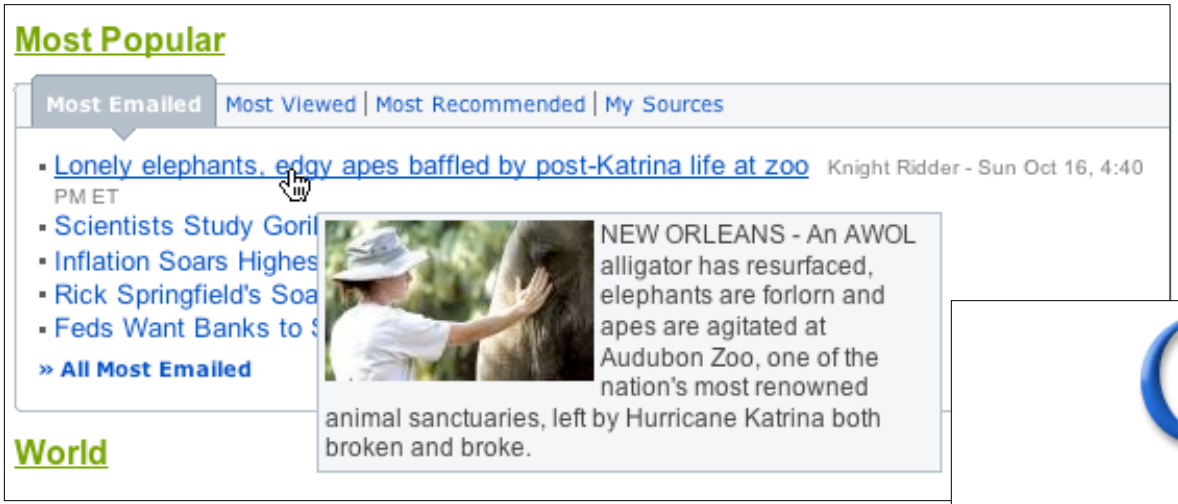
- Interaction
  course-grained
- Data
  loaded with the page or
  obtained via refresh
- Presentation:
  page-based updates



Classic Web Illustrated

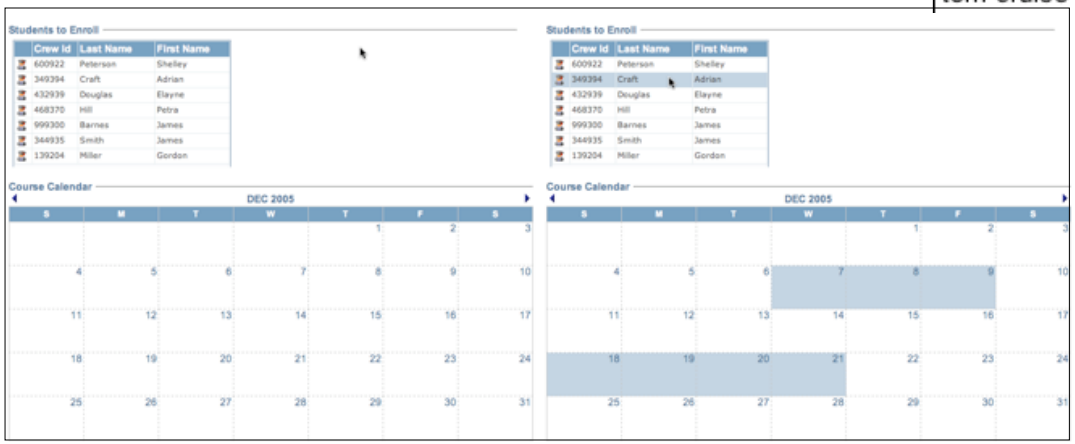


Ajax = Just-in-Time. Immediacy.



Just-in-time data

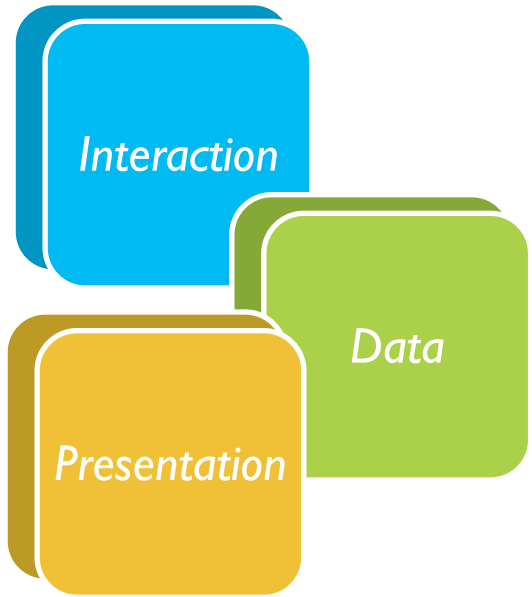
Just-in-time presentation



Just-in-time logic

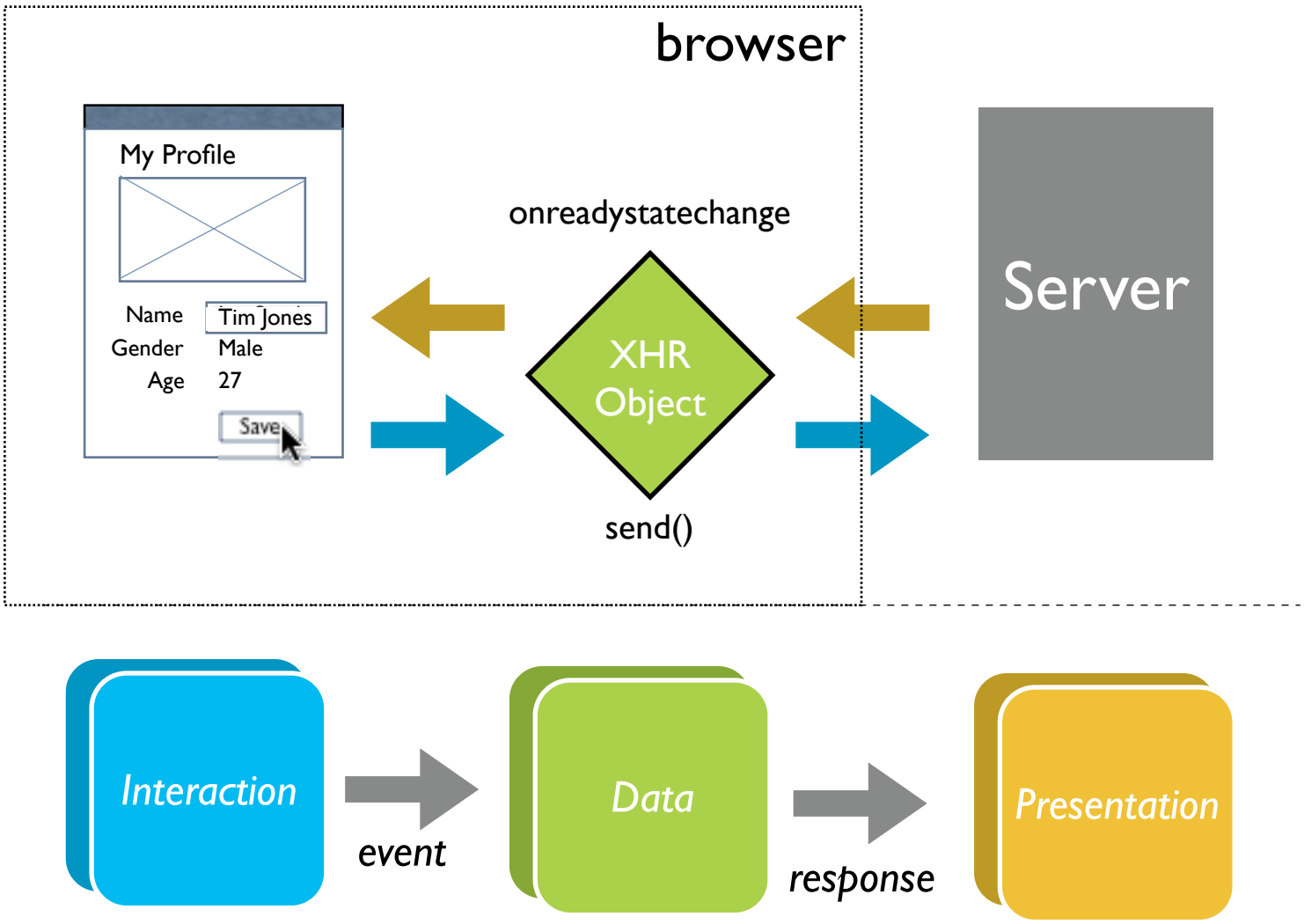
Ajax Model - New & Improved!

- Now with *Deeper Interaction*!
- Now with *Just-in-Time Data & Just-in-Time Logic*!
  - ★ XMLHttpRequest (XHR) is the secret sauce!
- Now with *Richer Interface*!



- *All dimensions are closer*

Ajax Illustrated



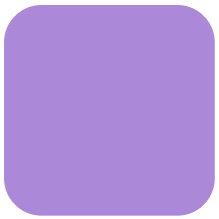
AJAX vs Ajax

- AJAX = Asynchronous JavaScript and XML
  - Strict definition is using XMLHttpRequest (XHR) to retrieve XML within a web page
- Ajax = The set of technologies that allow web applications to provide rich interaction, just-in-time information and dynamic interfaces without required page refresh
- The Secret Sauce

  - Ajax = XHR + DHTML (HTML, CSS, JavaScript) + Rich design

Other Remote Scripting Techniques

- Hidden IFrame
- <img> src
- <script> src hack
- CSS href hack
- JS to faceless Java applets
- JS to faceless Flash
- NO CONTENT Response
- Cookies



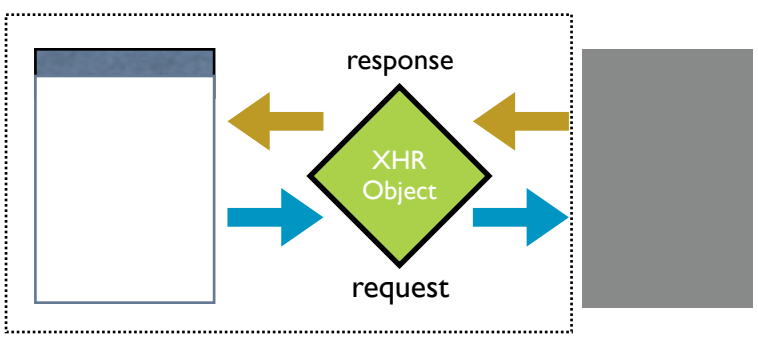
Ajax Patterns

Drag and Drop. Drag and Drop Modules. In Page Editing. In Page Custom Editing. Direct State Editing. Grid Cell Editing. Inline Custom Editing. Inline Tag Editing. Popup Custom Editing. Slide-out Custom Editing. Inline Text Editing. Persistent Portals. Inline Reordering. Indication. Busy Indication. Cursor Busy. In Context Busy. In Context Progress. Inline Status. Character Counter. Auto Complete. Balloon Error Tip. Deferred Content Loading. Dynamic Goal. Narrowing Choices. Refining Search. Live Search. Dynamic Filter. Invitation. Cursor Invitation. Drop Invitation. Tool Tip Invitation. Hover Invitation. Detail Zoom. Opacity Focus. Configurable Module - Faceplate. Configurable Module - Flip It. Configurable Module - Inline Configure. Configurable Module - Slide Out Drawer. Slide Out. Flip. Opacity Fade. Endless Scrolling. Expandable Paging Boundary. Fresh Content. Hover Detail. In Place Drill Down. Inline Assistant. Inline Validation. Validate Then Suggest. On Demand Refresh. Periodic Refresh. Resizable Modules. Scrolling Modules. Auto Save. In Context Tools. Remembered Collection. Remembered Preferences. Auto Form Fill. Rating an Object. Transition. Brighten Transition. Cross Fade Transition. Dim Transition. Expand Transition. Fade In Transition. Fade Out Transition. Flip Transition. Move Transition. Self-Healing Transition. Collapse Transition. Slide Transition. Rich Internet Object. Available. Selected. Identifiable Object.

But What Can XHR Do?

- Make a request
- Return a response

- And do it asynchronously



Anatomy of a Pattern

- Ajax design patterns contain three steps
  - **Trigger** (event or timer)
  - **Operation** (Ajax, remote scripting)
  - **Update** (presentation)

Trigger

- Every pattern starts with
  - a user event
  - a timer event

mouseout hover keypress keydown mousedown drop filter choices mouseup drag click mousedown select focus blur resize move timeout

Operation

Ajax patterns open the door to immediacy

- **Lookup** I can get information when I need it
- **Persist** I can save in real-time
- **Validate** I can prevent errors early
- **Invoke** I can make things happen now
- **Message** I can communicate instantly

Operation. Lookup

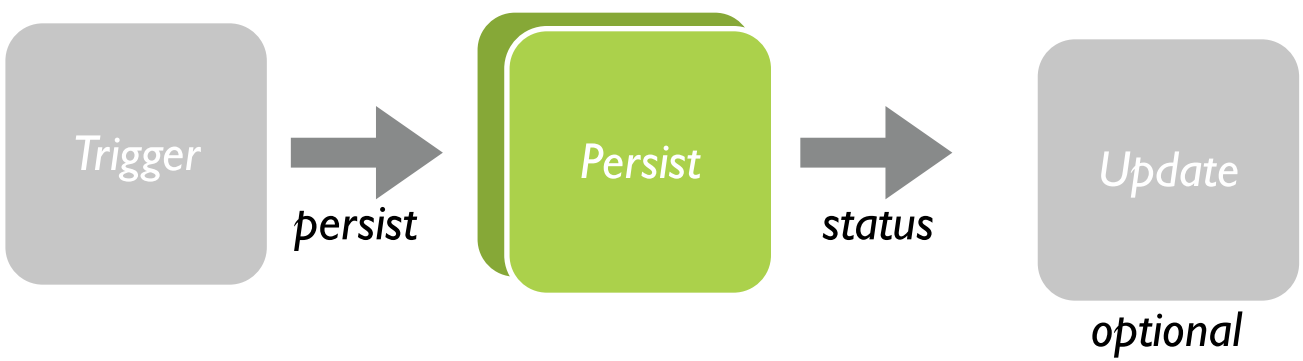
I can get information when I need it

Auto Complete. Deferred Content Loading. Dynamic Goal. Narrowing Choices. Refining Search. Live Search. Dynamic Filter. Detail Zoom. Endless Scrolling. Expandable Paging Boundary. Fresh Content. Hover Detail. In Place Drill Down. On Demand Refresh. Periodic Refresh. Resizable Modules. Scrolling Modules. Auto Form Fill.

Operation. Persist

I can save in real-time

Drag and Drop Modules. In Page Editing. In Page Custom Editing. Direct State Editing. Grid Cell Editing. Inline Custom Editing. Inline Tag Editing. Popup Custom Editing. Slide-out Custom Editing. Inline Text Editing. Inline Reordering. Auto Save. Remembered Collection. Remembered Preferences. Rating an Object.

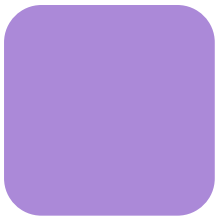


Update

- Finally, patterns reflect a visual change

Indication. Busy Indication. Cursor Busy. In Context Busy. In Context Progress. Inline Status. Transition. Brighten Transition. Cross Fade Transition. Dim Transition. Expand Transition. Fade In Transition. Fade Out Transition. Flip Transition. Move Transition. Self-Healing Transition. Collapse Transition. Slide Transition. Rich Internet Object. Available. Selected. Identifiable Object. Slide-out. Popup Balloon.

Pattern-O-Matic



Principles

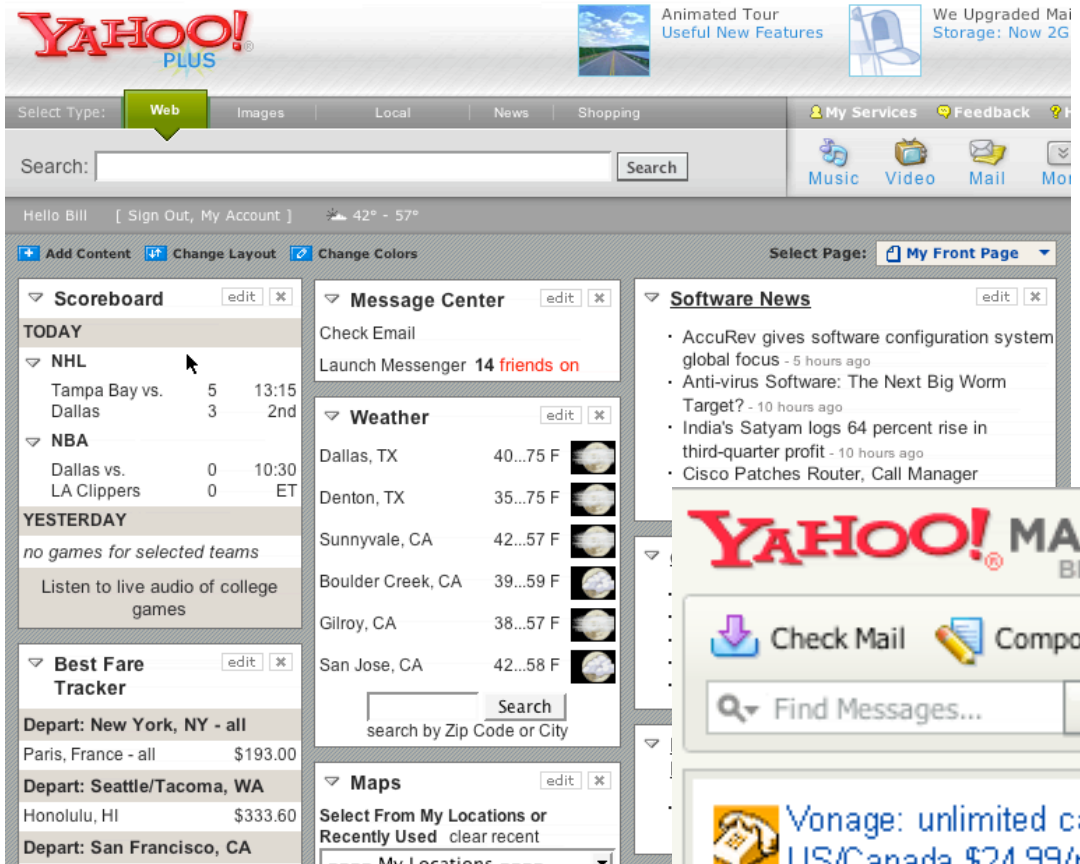
Principles for Ajax Design

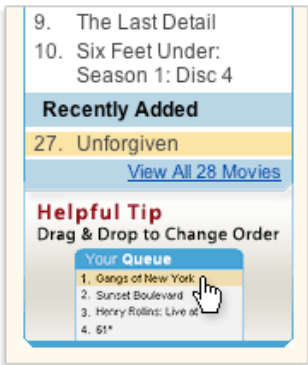
1. Keep it direct
2. Provide live feedback
3. Offer an invitation
4. Cross borders reluctantly
5. Leave a light footprint
6. Show transitions
7. Think in objects

submit hyperlink

mouseout hover keypress keydown mousedown
drop filter choices mouseup drag click select focus
blur resize move timeout

Keep it Direct

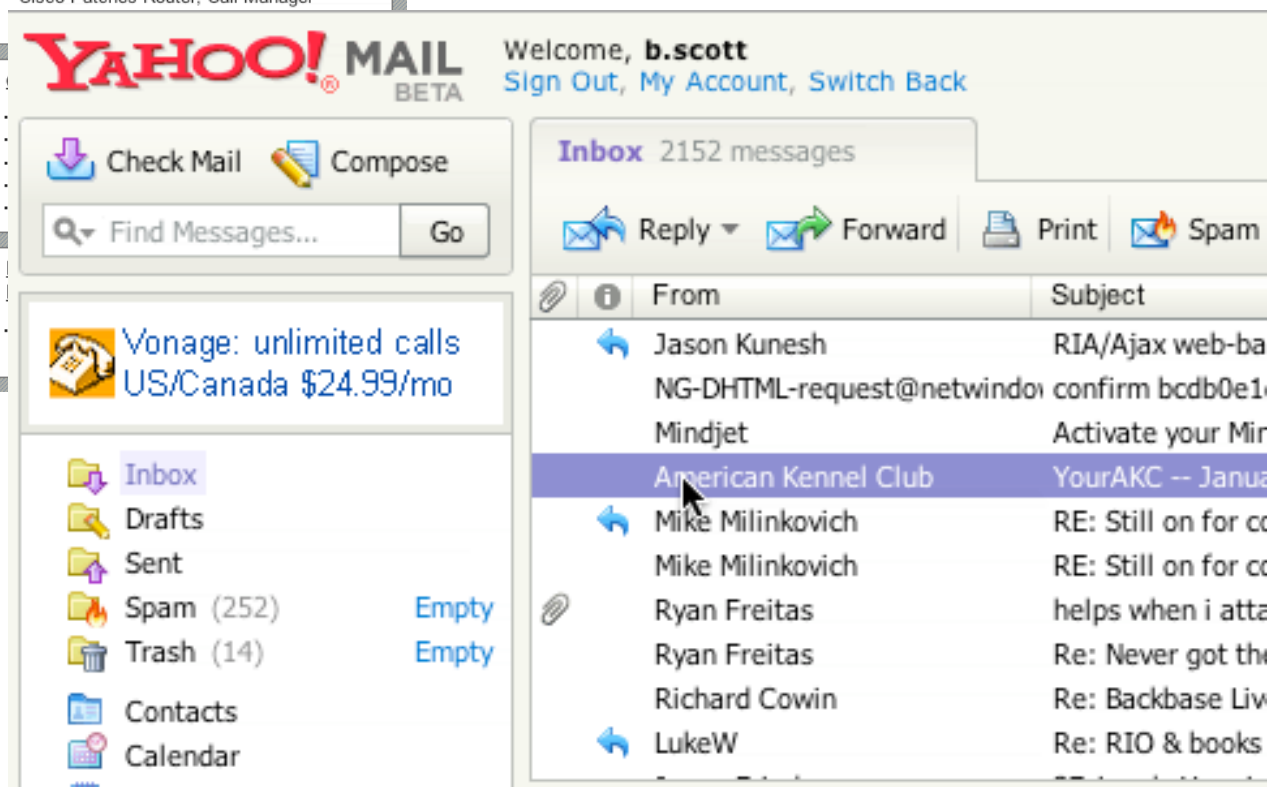


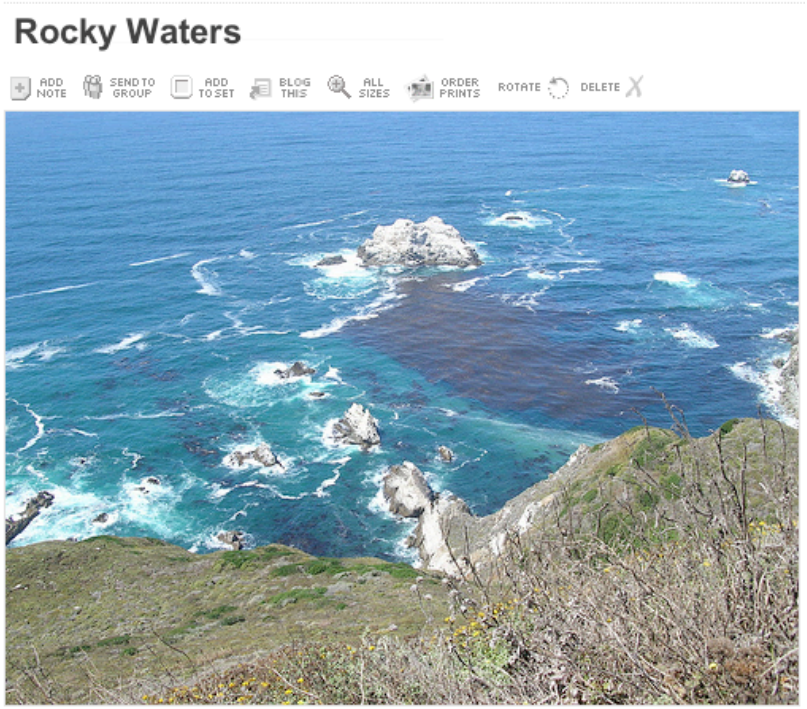


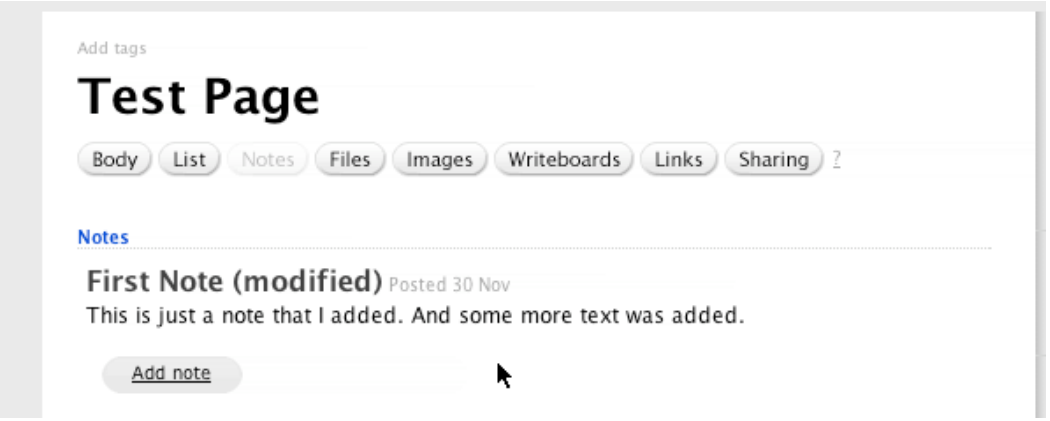
Netflix.com

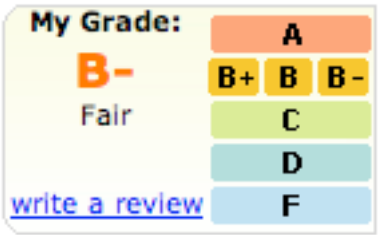
Prioritization Tip: You can prioritize entire to-do lists by clicking the Reorder lists link and then dragging the lists to reorder them. You can reorder individual items by clicking the "Reorder" link by the list title and dragging the items to reorder them.

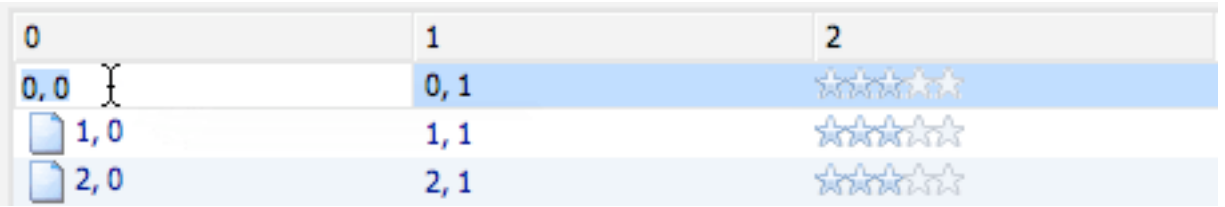
Basecamphq.com




Rocky Waters
ADD NOTE
SEND TO GROUP
ADD TO SET
BLOG THIS
ALL SIZES
ORDER PRINTS
ROTATE
DELETE


Add tags
Test Page
Body
List
Notes
Files
Images
Writeboards
Links
Sharing
Notes
First Note (modified) Posted 30 Nov
This is just a note that I added. And some more text was added.
Add note


My Grade:
B-
Fair
write a review
A
B+
B
B-
C
D
F


0
1
2
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1, 1
2, 0
2, 1

Scheduled Items

Wed 11/23/05 (day 1) - Yosemite Natl Pk, Yosemite National Park

Yosemite Lodge View | Delete

From $97.00 to $146.00 per night. •Reserve Now

559-252-4848
Yosemite Natl Pk, CA 95389
United States

In the valley of Yosemite National Park

Notes: [Edit]

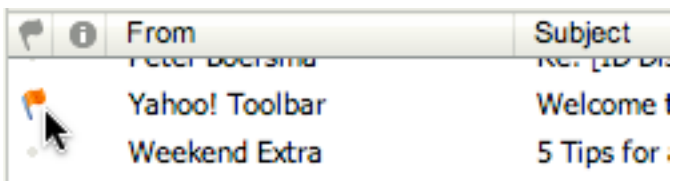
Tags: [Edit]

Dates: [Add]
Wed, Nov 23rd - Fri, Nov 25th [Edit]

Tunnel View

+1 209 372 1000
Wawona Rd
Yosemite National Park, CA 95389
United States

This breathtaking and spectacular sight is located on Highway 41 just north of Wawona, and just south of the Valley Floor. This popular spot is the most photographed view of the valley. It received



My Saved Pages > **ypatternexample**

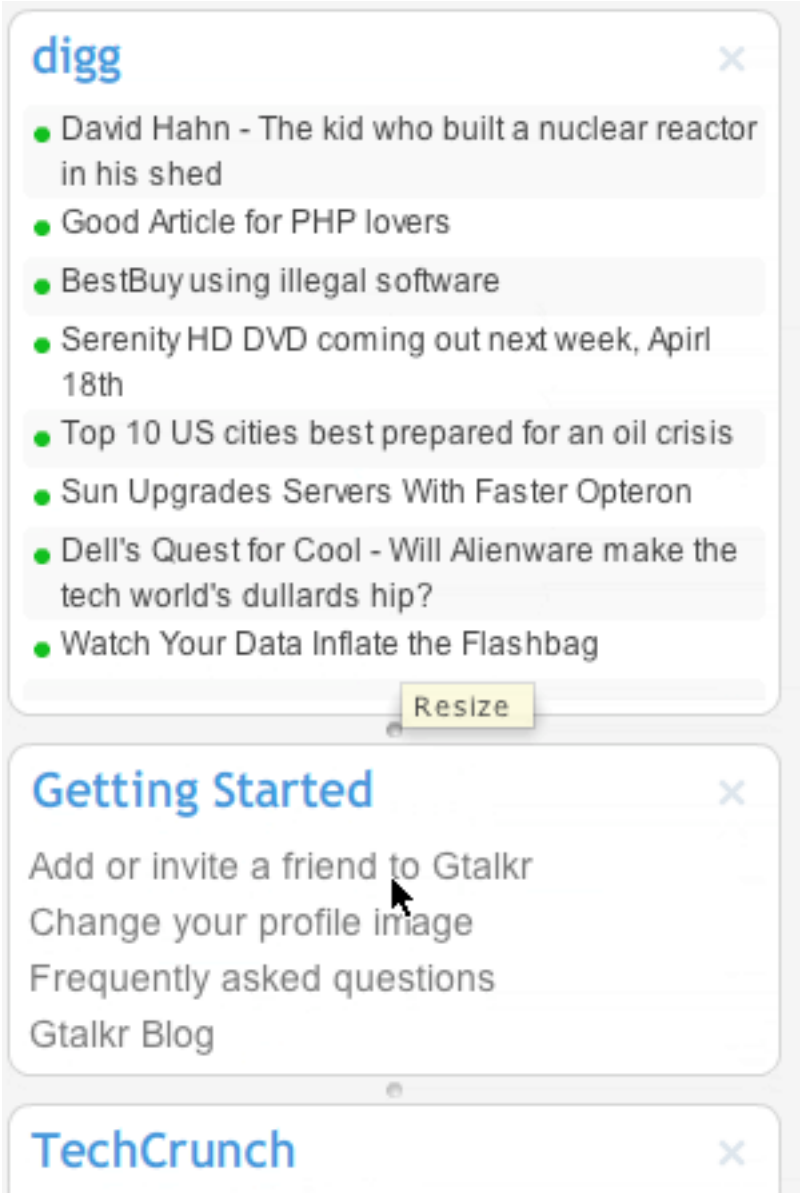
Items **1** - **4** of about **4**

Sort by: **Date Saved** | Title | URL

coming_soon.mov (video/quicktime Object)
Shared by: Me - Details - Edit
Tags: comment, digg, incontextexpandpatte..., inlinepageeditpatter..., ratinganobjectpatter..., more...
Access: Everyone
http://sjc.videos.revision3.com/diggnation/coming_soon.mov
Shared at 4:49 PM PST
Email - IM - Delete

Ajaxian ? New Digg Ajax Comment System
Shared by: Me - Details - Edit
Tags: comment, digg, incontextexpandpatte..., inlinepageeditpatter..., ratinganobjectpatter..., more...
Access: Everyone
http://ajaxian.com/archives/new-digg-ajax-comment-system - My cached copy
Shared at 4:49 PM PST
Email - IM - Delete

Yahoo! Groups : scotts-pub Post Message
Saved by: Me - Details - Edit
Note: **rich text editor for blogs**
Tags: code, inline edit, internalyahoo, patterns, ypatternexample, more...
Access: Just me
http://f3.corp.yahoo.com/~scotts/xpost.html
Saved on February 16, 2006
Email - IM - Delete


digg
David Hahn - The kid who built a nuclear reactor in his shed
Good Article for PHP lovers
BestBuy using illegal software
Serenity HD DVD coming out next week, Apirl 18th
Top 10 US cities best prepared for an oil crisis
Sun Upgrades Servers With Faster Opteron
Dell's Quest for Cool - Will Alienware make the tech world's dullards hip?
Watch Your Data Inflate the Flashbag
Resize
Getting Started
Add or invite a friend to Gtalkr
Change your profile image
Frequently asked questions
Gtalkr Blog
TechCrunch

Drag and Drop. Drag and Drop Modules. In Page Editing. In Page Custom Editing. Direct State Editing. Grid Cell Editing. Inline Custom Editing. Inline Tag Editing. Popup Custom Editing. Slide-out Custom Editing. Inline Text Editing. Inline Reordering. Resizable Content.

Prefer interaction within the page

What about discoverability?

Prefer interaction within the page

What about discoverability?

Use direct editing on page content

What about save/cancel?

Avoid page jitter

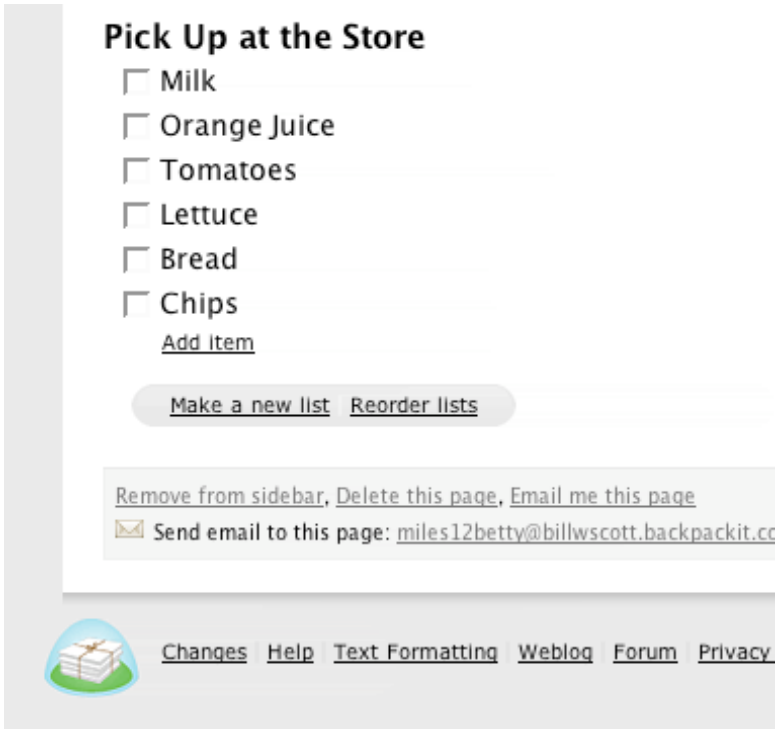
Reduce the feeling of modes

State park near our new home in San Jose (next to Milpitas)

SAVE OR CANCEL

Prefer interaction within the page

What about discoverability?



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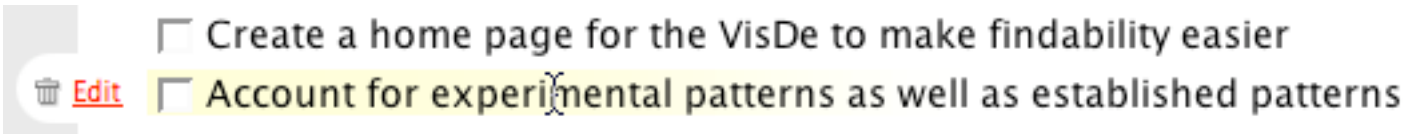


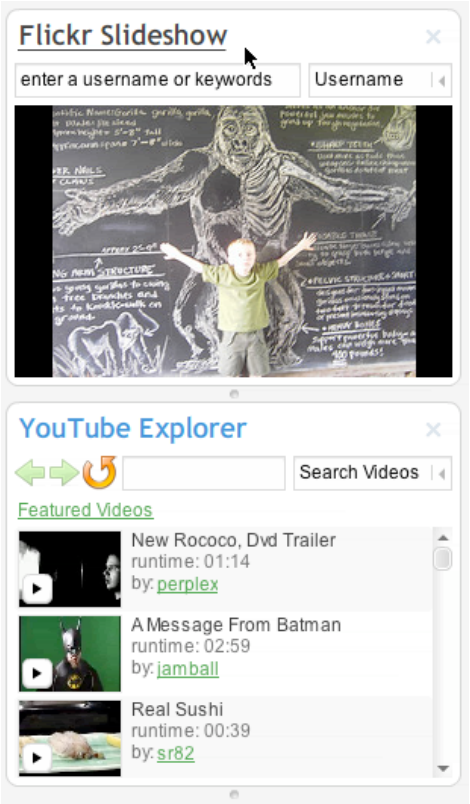
Provide in-context tools

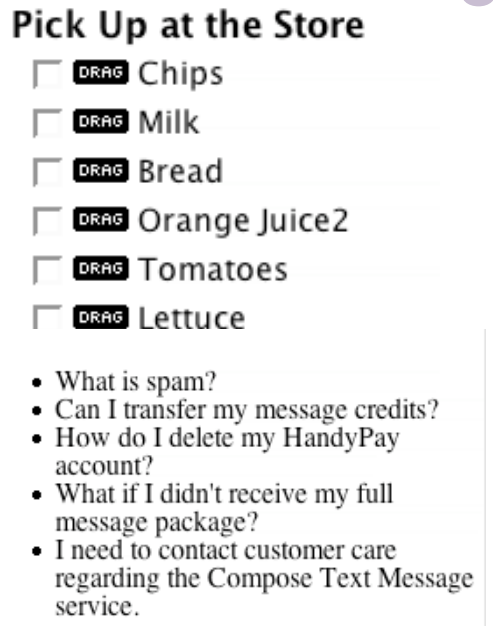
Only good for single operations

Can actually slow you down

Prefer interaction within the page

What about discoverability?





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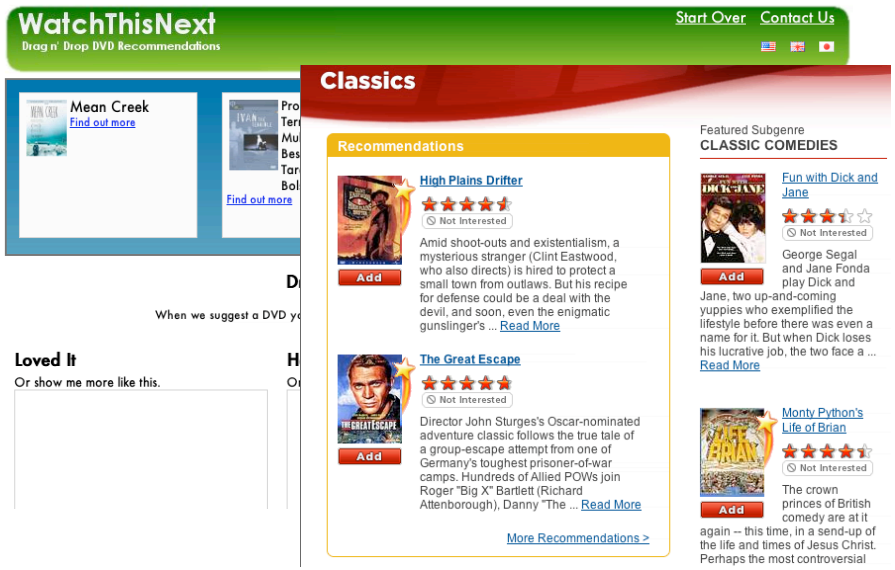


Use drag and drop where appropriate

Not for simply setting an attribute

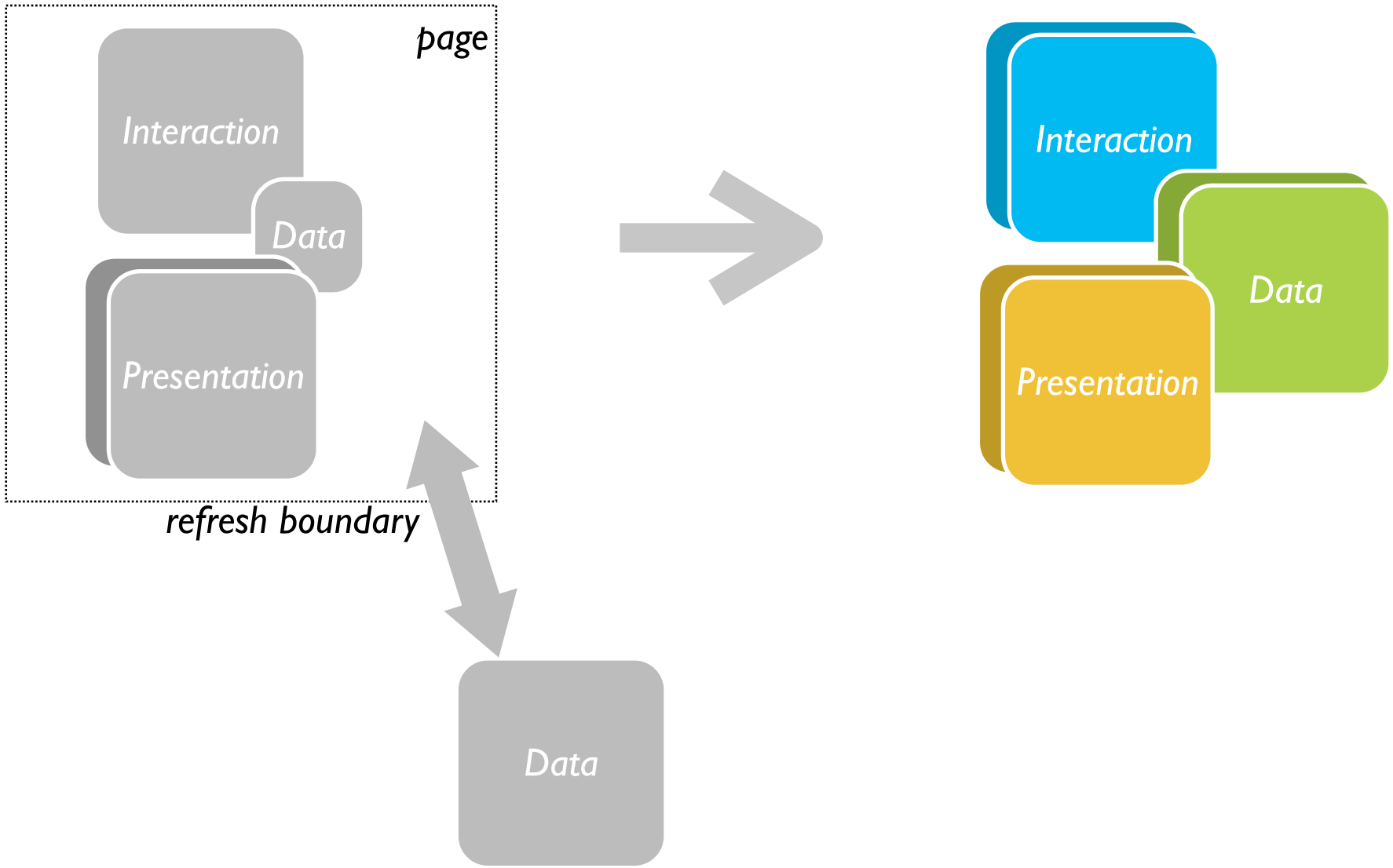
Good for layout changes or containment

Needs transitions

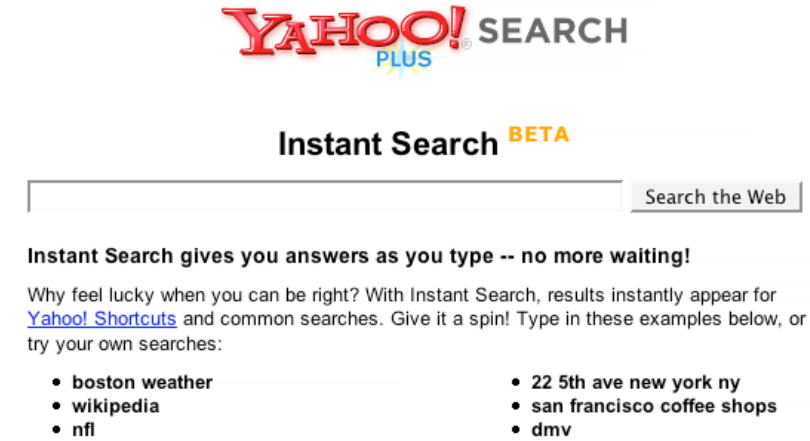
Provide in-context tools

Only good for single operations

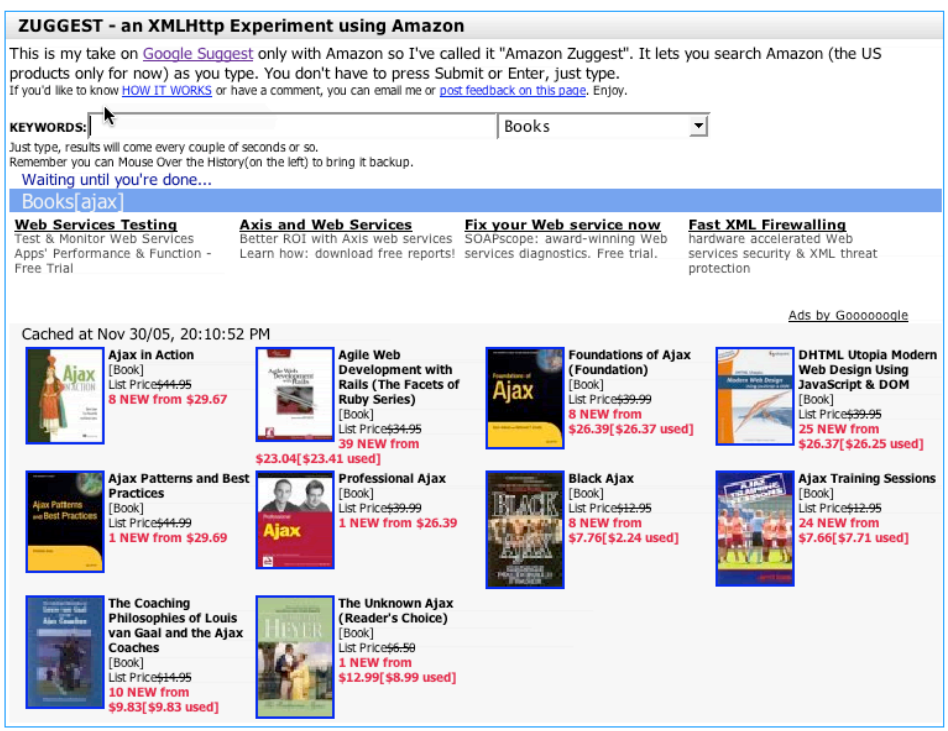
Can actually slow you down


page
Interaction
Data
Presentation
refresh boundary
Data
Interaction
Data
Presentation

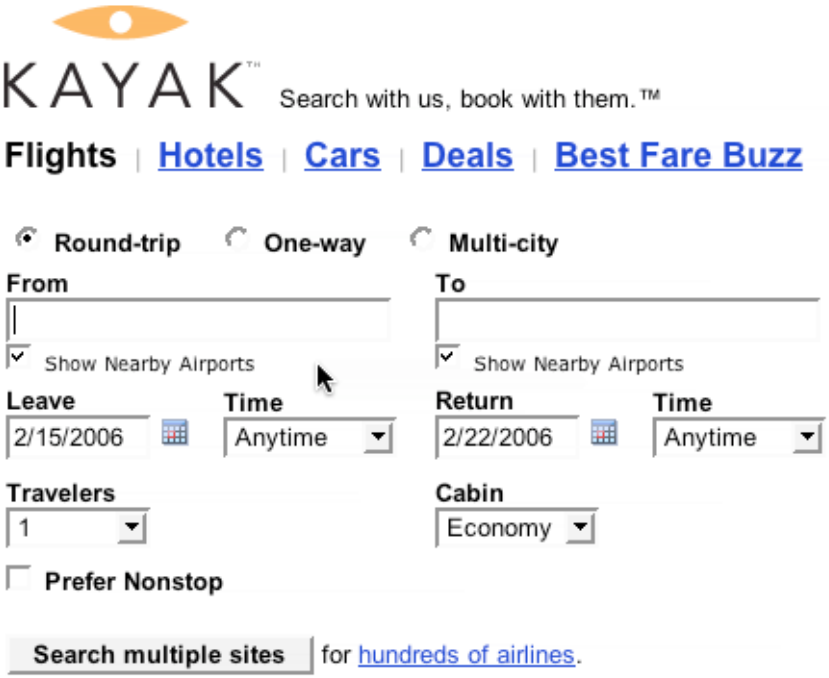
2 Provide live feedback


YAHOO! SEARCH
PLUS
Instant Search BETA
Search the Web
Instant Search gives you answers as you type -- no more waiting!
Why feel lucky when you can be right? With Instant Search, results instantly appear for Yahoo! Shortcuts and common searches. Give it a spin! Type in these examples below, or try your own searches:
boston weather
wikipedia
nfl
22 5th ave new york ny
san francisco coffee shops
dmv

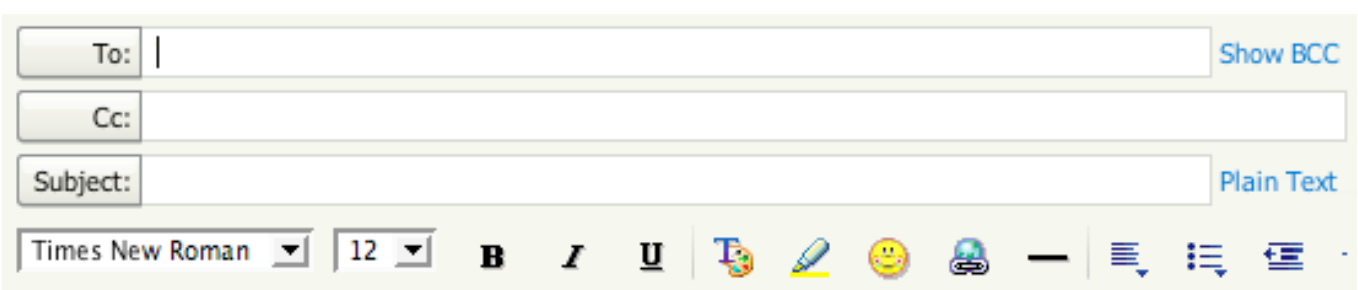
YAHOO! search
php.net


ZUGGEST - an XMLHttp Experiment using Amazon
This is my take on Google Suggest only with Amazon so I've called it "Amazon Zuggest". It lets you search Amazon (the US products only for now) as you type. You don't have to press Submit or Enter, just type.
If you'd like to know HOW IT WORKS or have a comment, you can email me or post feedback on this page. Enjoy.
KEYWORDS:
Books
Just type, results will come every couple of seconds or so.
Remember you can Mouse Over the History(on the left) to bring it backup.
Waiting until you're done...
Books[ajax]
Web Services Testing
Test & Monitor Web Services Apps' Performance & Function - Free Trial
Axis and Web Services
Better ROI with Axis web services Learn how: download free reports!
Fix your Web service now
SOAPscope: award-winning Web services diagnostics. Free trial.
Fast XML Firewalling
hardware accelerated Web services security & XML threat protection
Ads by Goooooogle
Cached at Nov 30/05, 20:10:52 PM
Ajax in Action
[Book]
List Price$44.95
8 NEW from $29.67
Agile Web Development with Rails (The Facets of Ruby Series)
[Book]
List Price$34.95
39 NEW from $23.04[$23.41 used]
Foundations of Ajax (Foundation)
[Book]
List Price$39.99
8 NEW from $26.39[$26.37 used]
DHTML Utopia Modern Web Design Using JavaScript & DOM
[Book]
List Price$39.95
25 NEW from $26.37[$26.25 used]
Ajax Patterns and Best Practices
[Book]
List Price$44.99
1 NEW from $29.69
Professional Ajax
[Book]
List Price$39.99
1 NEW from $26.39
Black Ajax
[Book]
List Price$12.95
8 NEW from $7.76[$2.24 used]
Ajax Training Sessions
[Book]
List Price$12.95
24 NEW from $7.66[$7.71 used]
The Coaching Philosophies of Louis van Gaal and the Ajax Coaches
[Book]
List Price$14.95
10 NEW from $9.83[$9.83 used]
The Unknown Ajax (Reader's Choice)
[Book]
List Price$6.50
1 NEW from $12.99[$8.99 used]

Ask Your Question
1. Enter your question
You can ask 5 more questions today.
You have 110 characters to work with. Add details below.
2. Add details (optional)
No spam, please! When in doubt, please refer to our community guidelines.
You have 1000 characters to work with.
3. Categorize the question
Arts & Humanities ->
Auto & Transportation -


KAYAK
Search with us, book with them.™
Flights | Hotels | Cars | Deals | Best Fare Buzz
Round-trip
One-way
Multi-city
From
Show Nearby Airports
To
Show Nearby Airports
Leave
2/15/2006
Time
Anytime
Return
2/22/2006
Time
Anytime
Travelers
1
Cabin
Economy
Prefer Nonstop
Search multiple sites
for hundreds of airlines.

Find Athletes and Countries
Medal Count
PRESENTED BY
CHEVROLET
TOTAL
GERMANY 11 12 6 29
UNITED STATES 9 9 7 25
CANADA 7 10 7 24
AUSTRIA 9 7 7 23
RUSSIA 8 6 8 22
» Full Medal Count
MY YAHOO!
RSS


To:
Show BCC
Cc:
Subject:
Plain Text
Times New Roman
12
B
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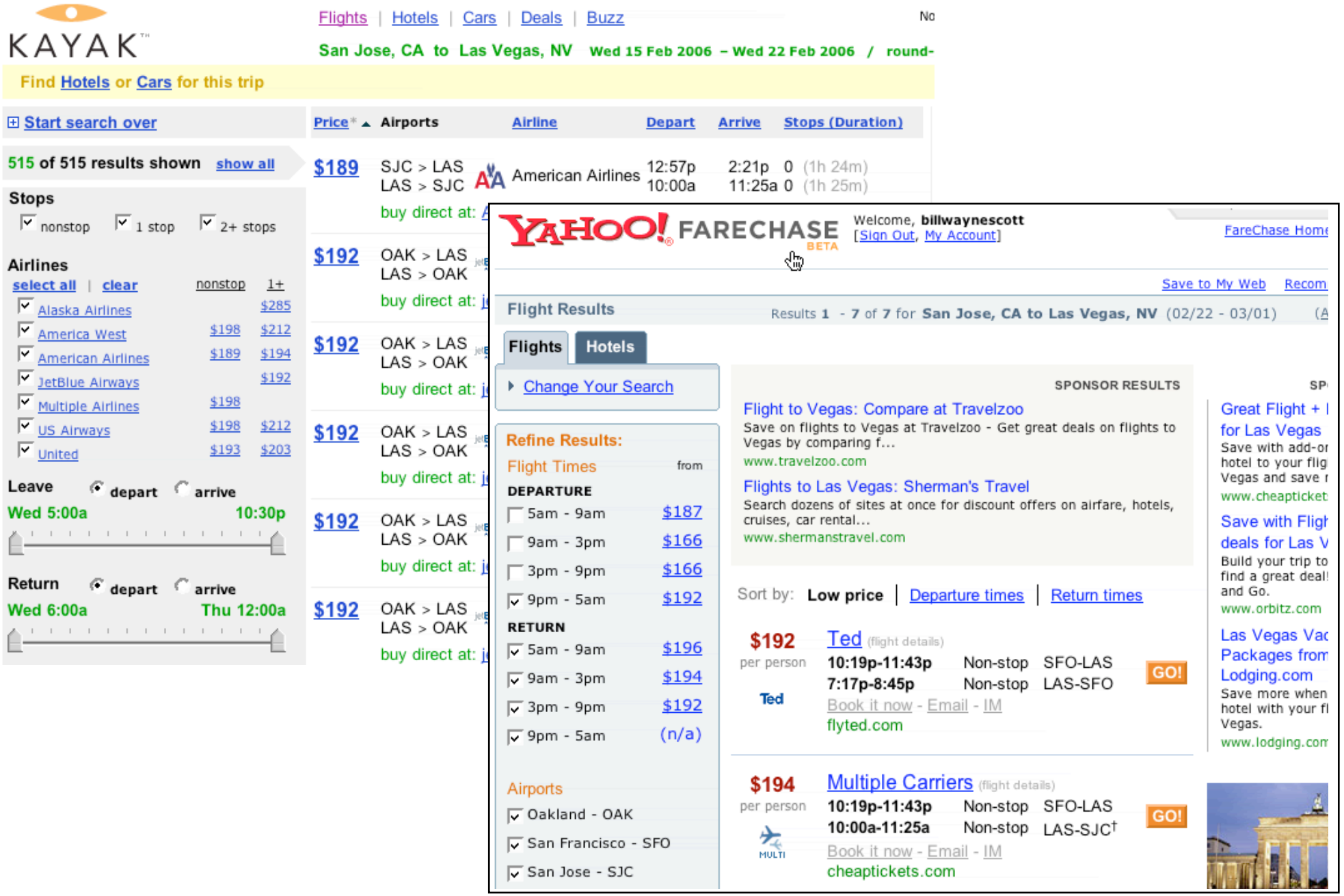
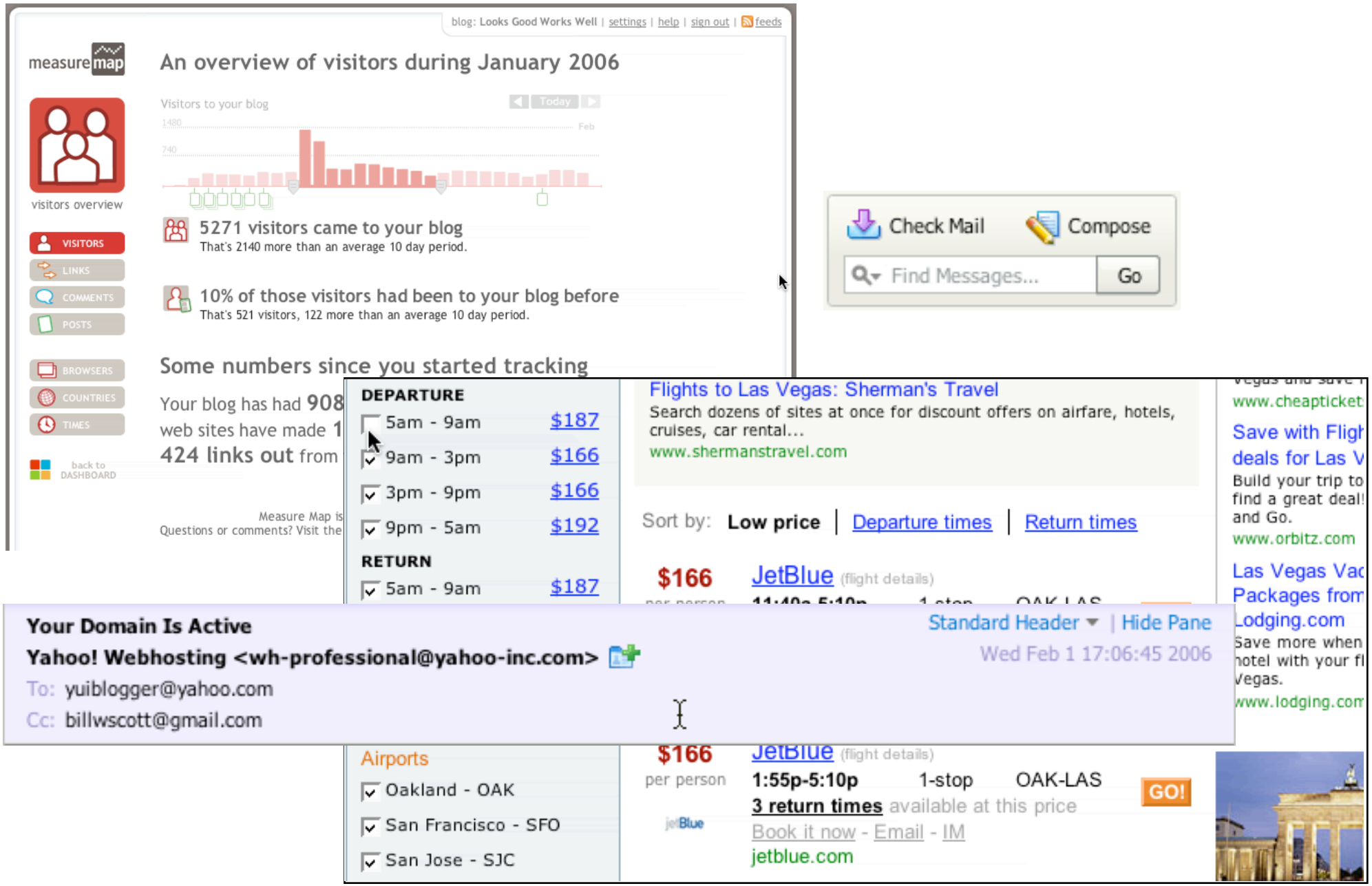
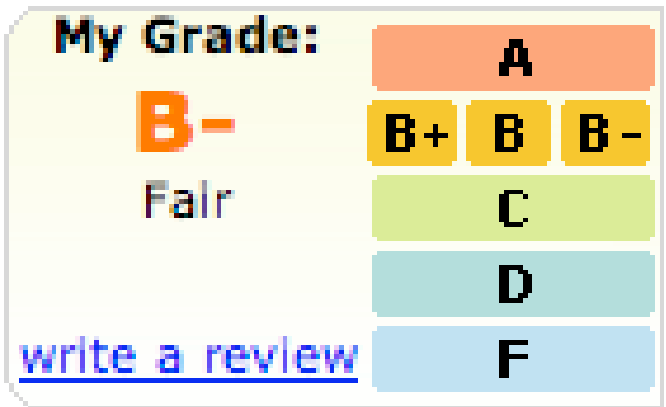
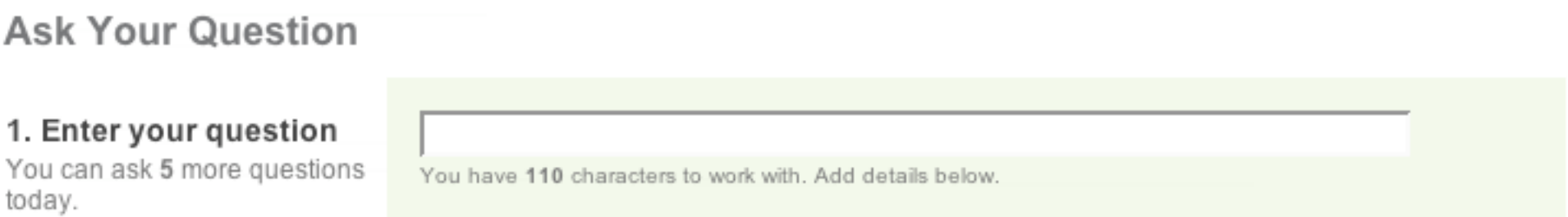
U


KAYAK
Flights | Hotels | Cars | Deals | Buzz
San Jose, CA to Las Vegas, NV Wed 15 Feb 2006 – Wed 22 Feb 2006 / round-
Find Hotels or Cars for this trip
Start search over
515 of 515 results shown show all
Stops
nonstop 1 stop 2+ stops
Airlines
select all | clear
nonstop 1+
Alaska Airlines $285
America West $198 $212
American Airlines $189 $194
JetBlue Airways $192
Multiple Airlines $198
US Airways $198 $212
United $193 $203
Leave depart arrive
Wed 5:00a 10:30p
Return depart arrive
Wed 6:00a Thu 12:00a
Price Airports Airline Depart Arrive Stops (Duration)
$189 SJC > LAS LAS > SJC American Airlines 12:57p 10:00a 2:21p 11:25a 0 (1h 24m) 0 (1h 25m)
buy direct at:
$192 OAK > LAS LAS > OAK
$192 OAK > LAS LAS > OAK
$192 OAK > LAS LAS > OAK
$192 OAK > LAS LAS > OAK
$192 OAK > LAS LAS > OAK
YAHOO! FARECHASE BETA
Welcome, billwaynescott
[Sign Out, My Account]
FareChase Home
Save to My Web Recom
Flight Results
Results 1 - 7 of 7 for San Jose, CA to Las Vegas, NV (02/22 - 03/01)
Flights Hotels
Change Your Search
Refine Results:
Flight Times from
DEPARTURE
5am - 9am $187
9am - 3pm $166
3pm - 9pm $166
9pm - 5am $192
RETURN
5am - 9am $196
9am - 3pm $194
3pm - 9pm $192
9pm - 5am (n/a)
Airports
Oakland - OAK
San Francisco - SFO
San Jose - SJC
SPONSOR RESULTS
Flight to Vegas: Compare at Travelzoo
Save on flights to Vegas at Travelzoo - Get great deals on flights to Vegas by comparing f...
www.travelzoo.com
Flights to Las Vegas: Sherman's Travel
Search dozens of sites at once for discount offers on airfare, hotels, cruises, car rental...
www.shermanstravel.com
Sort by: Low price | Departure times | Return times
$192 per person
Ted (flight details)
10:19p-11:43p Non-stop SFO-LAS
7:17p-8:45p Non-stop LAS-SFO
Book it now - Email - IM
flyted.com
GO!
$194 per person
Multiple Carriers (flight details)
10:19p-11:43p Non-stop SFO-LAS
10:00a-11:25a Non-stop LAS-SJC†
Book it now - Email - IM
cheaptickets.com
GO!
Great Flight + for Las Vegas
Save with add-or hotel to your flig Vegas and save
www.cheapticket
Save with Fligh deals for Las V
Build your trip to find a great deal! and Go.
www.orbitz.com
Las Vegas Vac Packages from Lodging.com
Save more when hotel with your fl Vegas.
www.lodging.com


blog: Looks Good Works Well | settings | help | sign out | feeds
measuremap
An overview of visitors during January 2006
visitors overview
Visitors to your blog
Today
5271 visitors came to your blog
That's 2140 more than an average 10 day period.
10% of those visitors had been to your blog before
That's 521 visitors, 122 more than an average 10 day period.
Some numbers since you started tracking
VISITORS
LINKS
COMMENTS
POSTS
BROWSERS
COUNTRIES
TIMES
back to DASHBOARD
Check Mail
Compose
Find Messages...
Go
DEPARTURE
5am - 9am $187
9am - 3pm $166
3pm - 9pm $166
9pm - 5am $192
RETURN
5am - 9am $187
Flights to Las Vegas: Sherman's Travel
Search dozens of sites at once for discount offers on airfare, hotels, cruises, car rental...
www.shermanstravel.com
Sort by: Low price | Departure times | Return times
$166 JetBlue (flight details)
Your Domain Is Active
Yahoo! Webhosting <wh-professional@yahoo-inc.com>
To: yuiblogger@yahoo.com
Cc: billwscott@gmail.com
Standard Header | Hide Pane
Wed Feb 1 17:06:45 2006
Airports
Oakland - OAK
San Francisco - SFO
San Jose - SJC
$166
per person
JetBlue (flight details)
1:55p-5:10p 1-stop OAK-LAS
3 return times available at this price
Book it now - Email - IM
jetblue.com
GO!
www.cheapticket
Save with Fligh
deals for Las V
Build your trip to
find a great deal!
and Go.
www.orbitz.com
Las Vegas Vac
Packages from
Lodging.com
Save more when
hotel with your fl
Vegas.
www.lodging.com


My Grade:
B-
Fair
write a review
A
B+
B
B-
C
D
F

bi
Gmail
talk
BETA
Search Mail
Search
Your message has been sent.


Ask Your Question
1. Enter your question
You can ask 5 more questions today.
You have 110 characters to work with. Add details below.

:BETA:
Search
Tags
Blog Finder
Popular
About
president bush
in
All Blogs
Search
Options
882,052 posts about:
Add to Watchlist
president bush
Search related blogs
Related tags: Politics, Hurricane Katrina, Iraq, Katrina, Hurricane, Supreme Court.
Recent Posts tagged president bush
View Tag »
Top Blogs about president bush
View Blogs »
Loading
Loading
20 posts in the last 44 minutes in
All Languages
Weapons-grade Bullshit
to bring down the evil Bush/Cheney/Rumsfeld neo-con cabal, but tragically scoring only collateral... and essentially accused the Vice President of the United States of treason—with absolutely no evidence
Posted 9 minutes ago in protein wisdom 1,004 links Search this blog
The Shocking Case of Ahmed Omar Abu Ali
members into the U.S. by means of Mexico, to commit aircraft piracy, and to kill President Bush
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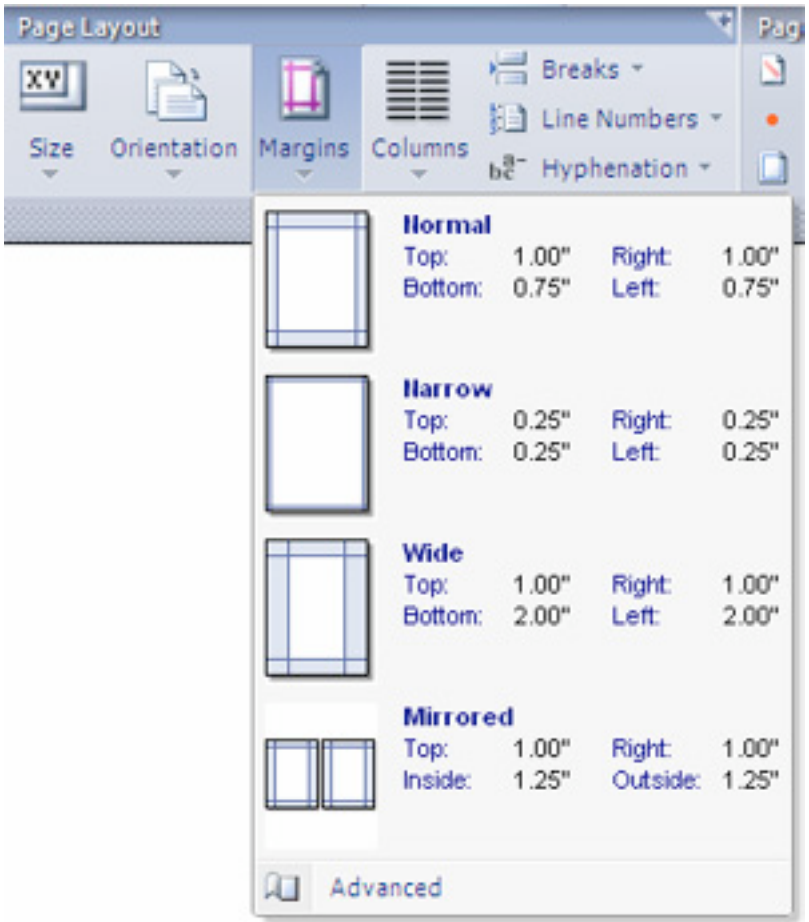
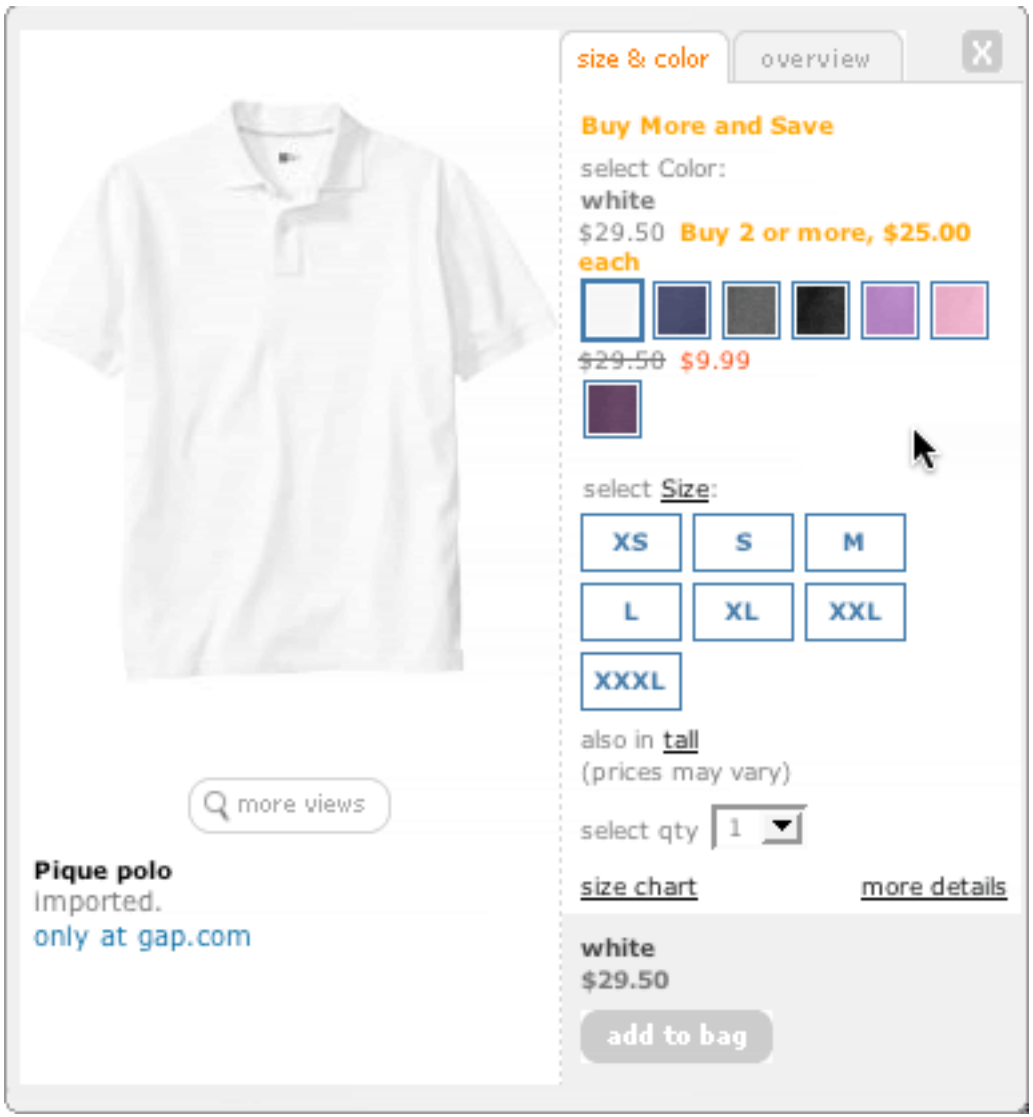


Office 12 Live Preview

digg spy: a real-time view of digg

spy on all stories | spy on queued stories | spy on front page stories

What?	Diggs	Story
	+695	**Nintendo DS download station finder!** http://www.nintendo.com/dsdownloadstation/
	+1399	**How To Build a Game In A Week From Scratch With No..** http://www.gamedev.net/reference/articles/article2...
	+86	**David Hahn - The kid who built a nuclear reactor i...** http://en.wikipedia.org/wiki/David_Hahn
	+201	**Another Apple Mac mini Dual Core 1.66GHz Review** http://reviews.designtechnica.com/review3531.html
	+85	**David Hahn - The kid who built a nuclear reactor i...** http://en.wikipedia.org/wiki/David_Hahn


size & color
overview
Buy More and Save
select Color:
white
$29.50 Buy 2 or more, $25.00 each
$29.50 $9.99
select Size:
XS
S
M
L
XL
XXL
XXXL
also in tall
(prices may vary)
select qty 1
size chart
more details
white
$29.50
add to bag
more views
Pique polo
imported.
only at gap.com

Indication. Busy Indication. Cursor Busy. In Context Busy. In Context Progress. Inline Status. Auto Complete. Balloon Error Tip. Deferred Content Loading. Dynamic Goal. Narrowing Choices. Refining Search. Live Search. Live Preview. Live Suggest. Character Counter.

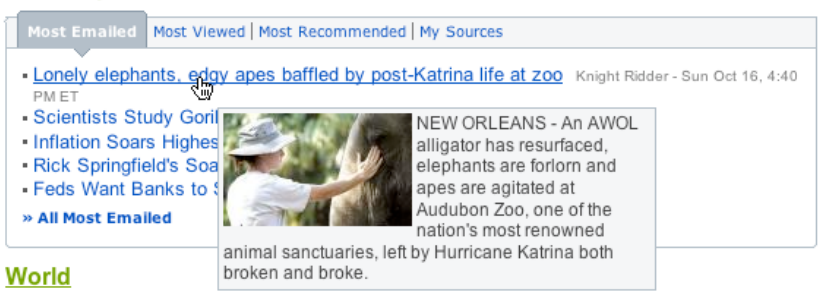
Keep the goal in mind

Design for immediacy

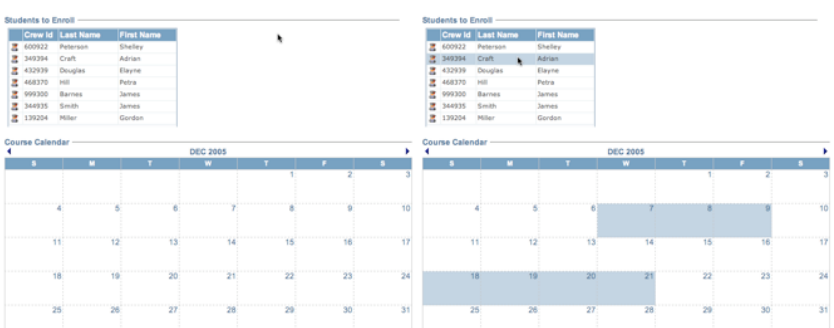
Is it narrowing or is it distracting

Use feedback to boost confidence

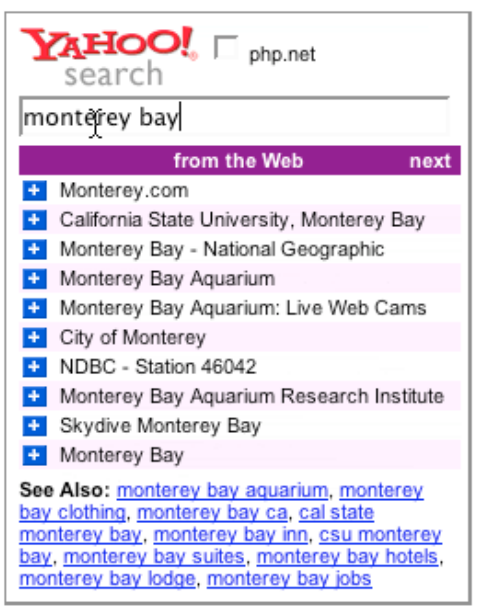
Let the user iterate where possible

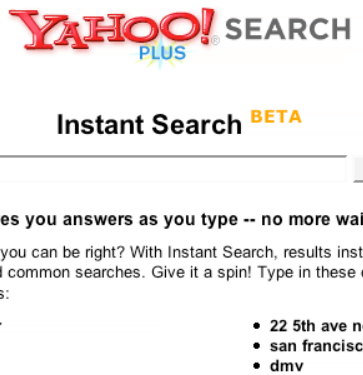


Just-in-time data



Just-in-time logic





Keep the goal in mind

Design for immediacy

Is it narrowing or is it distracting

Use feedback to boost confidence

Let the user iterate where possible

Keep the user engaged

Time passes faster

Look for engaging moments

Keep the goal in mind

Design for immediacy

Is it narrowing or is it distracting

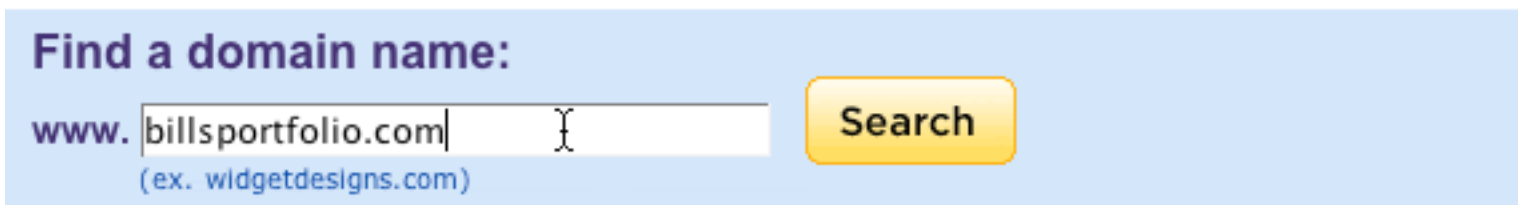
Use feedback to boost confidence

Let the user iterate where possible

Keep the user engaged

Time passes faster

Look for engaging moments



Use live-previews

Look before you leap

Keep the goal in mind

Design for immediacy

Is it narrowing or is it distracting

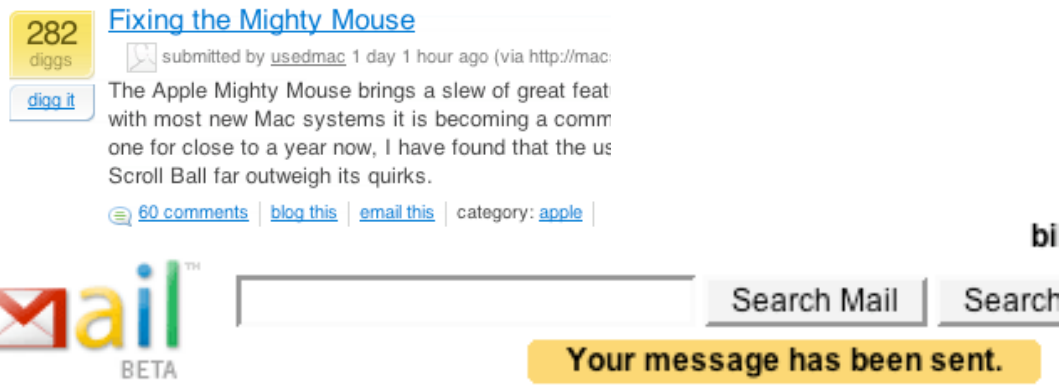
Use feedback to boost confidence

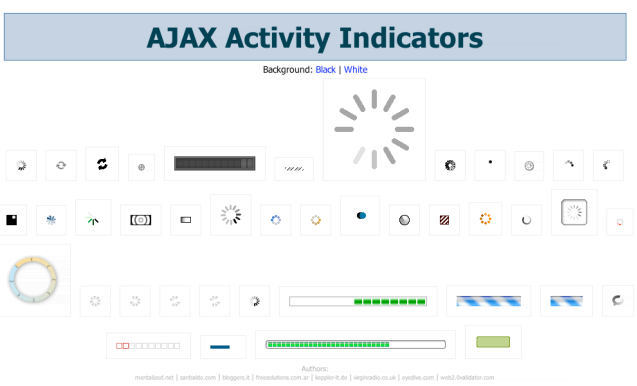
Let the user iterate where possible

Keep the user engaged

Time passes faster

Look for engaging moments





Use live-previews

Look before you leap

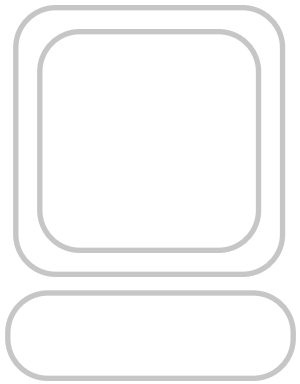
Keep feedback focused

Keep it in context

Updating too many areas at once will be confusing

Show dynamically what is relevant

Avoid creating feedback noise/jitter



desktop

hover blur focus click key
shiftclick doubleclick
drag dragdrop dragflipdrop
shiftdoubleclick tripleclick shifttripleclick

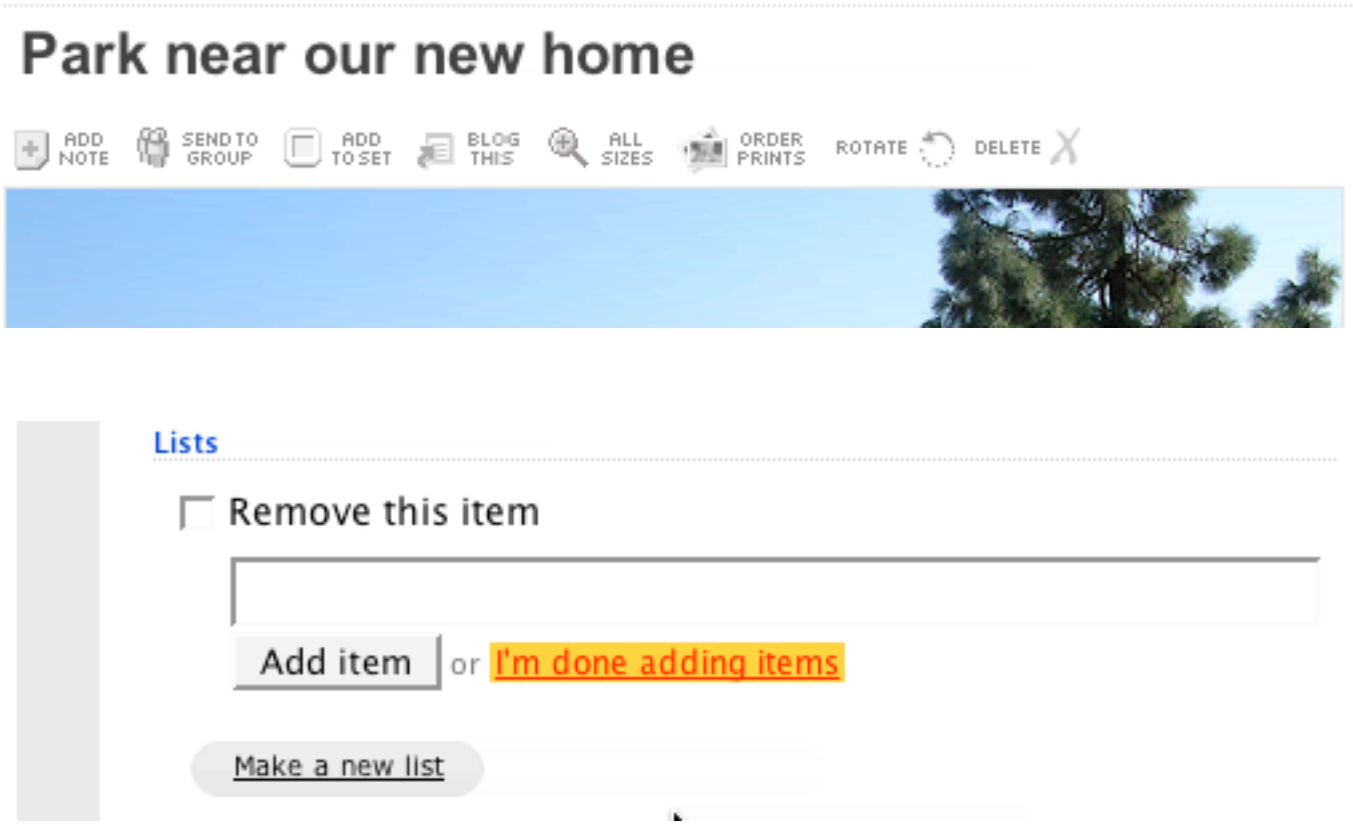
hover blur focus click key
shiftclick doubleclick
drag dragdrop dragflipdrop
shiftdoubleclick tripleclick shifttripleclick

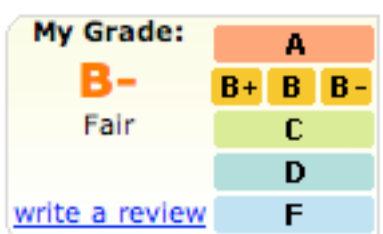
web

hover blur focus click
key shiftclick doubleclick dragdragdrop

hover blur focus click
key shiftclick doubleclick drag dragdrop

Offer an invitation


Park near our new home
ADD NOTE
SEND TO GROUP
ADD TO SET
BLOG THIS
ALL SIZES
ORDER PRINTS
ROTATE
DELETE
Lists
Remove this item
Add item
or
I'm done adding items
Make a new list


My Grade:
B-
Fair
write a review
A
B+
B
B-
C
D
F

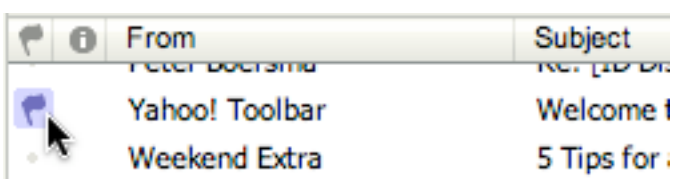
classic

Pique polo
$9.99-$29.50
Buy More and Save

double mini striped pique polo
$29.50
Buy 2 or more, $25.00 each See All

allover striped pique polo
$29.50
Buy 2 or more, $25.00 each See All

rugby stripe pique polo
$29.50
Buy 2 or more, $25.00 each See All

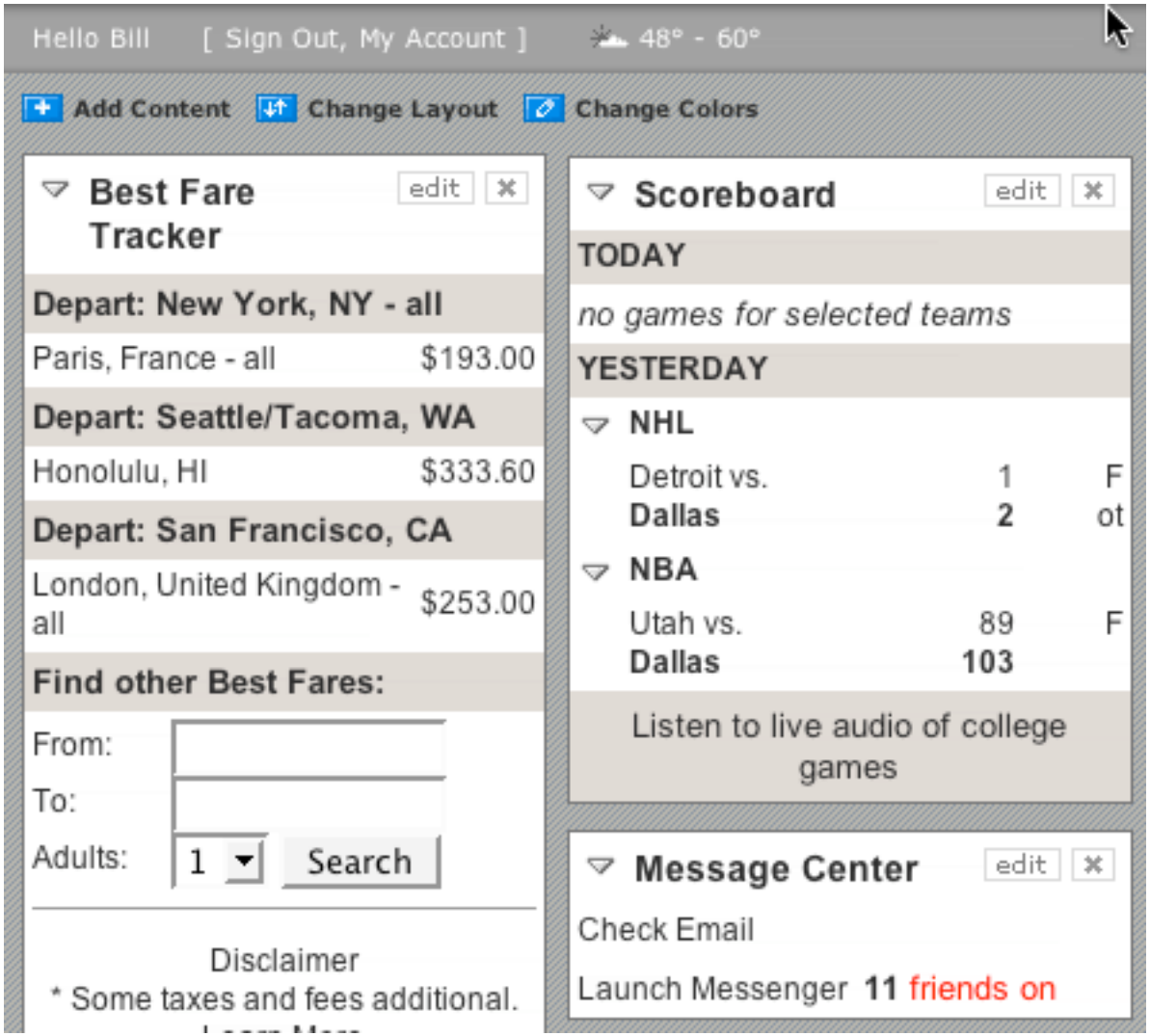


To see a product preview in action, hover over the link below.

Forty Associates recently added product previews to their Web site as part of a small beta program. During the beta, visitors to Associate sites who viewed a product preview clicked through to Amazon.com over 4% of the time; those clicks resulted in a purchase nearly 6% of the time.

Now we're opening the beta up to all Associates to further improve product previews. The first 500 Associates who refer a sale through a product preview-enhanced link will receive a $5 Amazon gift certificate. Click here to join your fellow Associates in beta testing product previews.

Don't worry if you don't already have Basic Display Product Links on your Web site. You can create them as part of the sign-up process. Click here for answers to questions you might have about the beta program.


Hello Bill
[Sign Out, My Account]
48° - 60°
Add Content
Change Layout
Change Colors
Best Fare Tracker
edit
Depart: New York, NY - all
Paris, France - all $193.00
Depart: Seattle/Tacoma, WA
Honolulu, HI $333.60
Depart: San Francisco, CA
London, United Kingdom - all $253.00
Find other Best Fares:
From:
To:
Adults: 1
Search
Disclaimer
* Some taxes and fees additional.
Scoreboard
edit
TODAY
no games for selected teams
YESTERDAY
NHL
Detroit vs. 1 F
Dallas 2 ot
NBA
Utah vs. 89 F
Dallas 103
Listen to live audio of college games
Message Center
edit
Check Email
Launch Messenger 11 friends on

Students to Enroll

	Crew Id	Last Name	First Name
	349394	Craft	Adrian
	432939	Douglas	Elayne
	468370	Hill	Petra

Course Calendar

DEC 2005

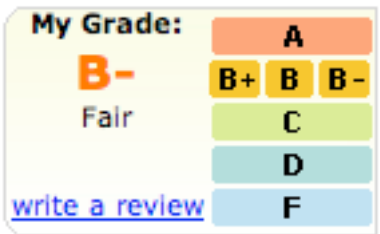
S	M	T	W	T	F	S
				1	2	3
4	5 600922/Peterson	6	7 999300/Barnes 344935/Smith 139204/Miller	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

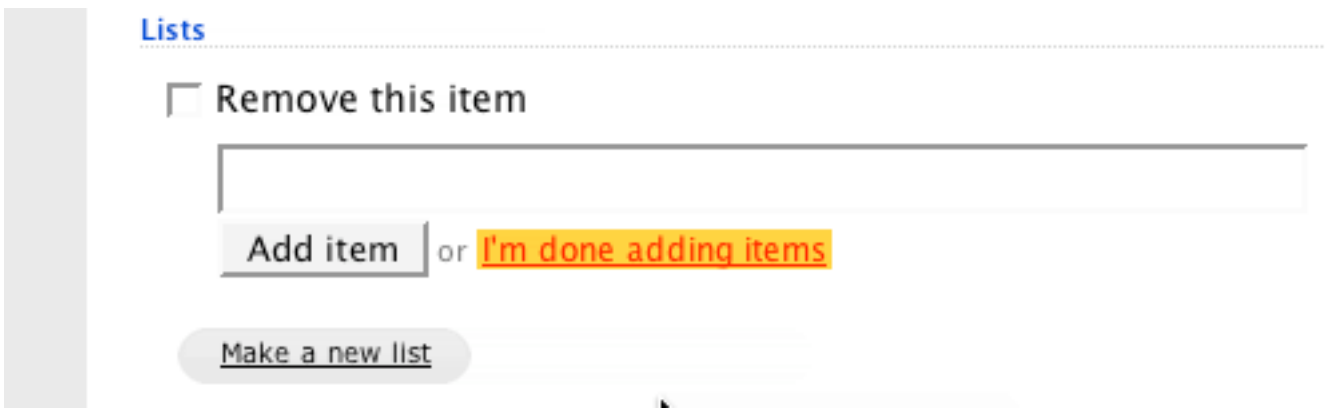
Invitation. Cursor Invitation. Drop Invitation. Tool Tip Invitation. Hover Invitation.

Make it engaging

Use lightweight events as a welcome mat

Rediscover the hover





Make it engaging

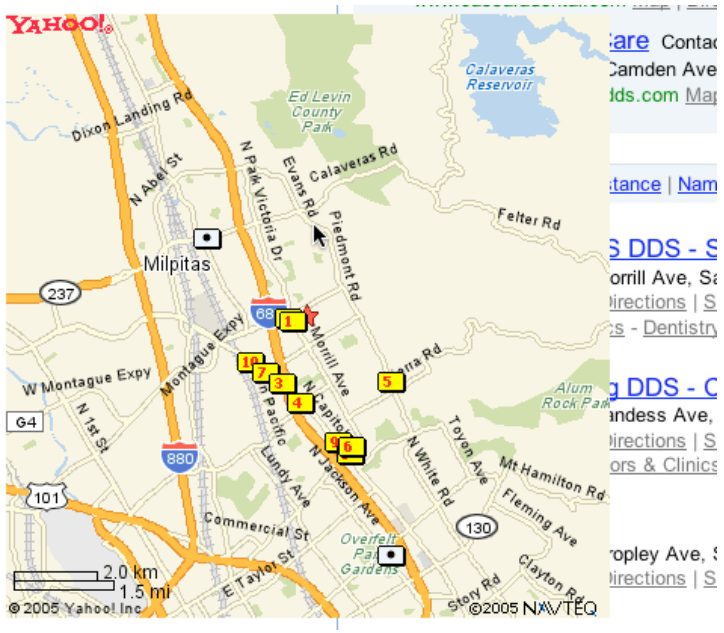
Use lightweight events as a welcome mat

Rediscover the hover

Keep actions out of it

Don't make the user afraid to explore

Don't proselytize



To see a product preview in action, hover over the link below.

Forty Associates recently added product previews to their Web site as part of a small beta program. During the beta, visitors to Associate sites who viewed a product preview clicked through to Amazon.com over 4% of the time; those clicks resulted in a purchase nearly 6% of the time.

Now we're opening the beta up to all Associates to further improve product previews. The first 500 Associates who refer a sale through a product preview-enhanced link will receive a $5 Amazon gift certificate. Click here to join your fellow Associates in beta testing product previews.

Don't worry if you don't already have Basic Display Product Links on your Web site. You can create them as part of the sign-up process. Click here for answers to questions you might have about the beta program.

Make it engaging

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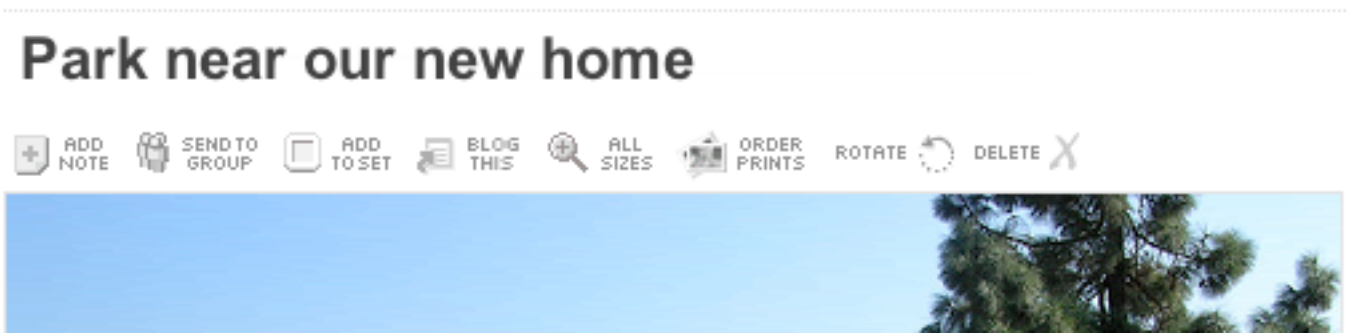


Get the actors involved

Hover Invitation

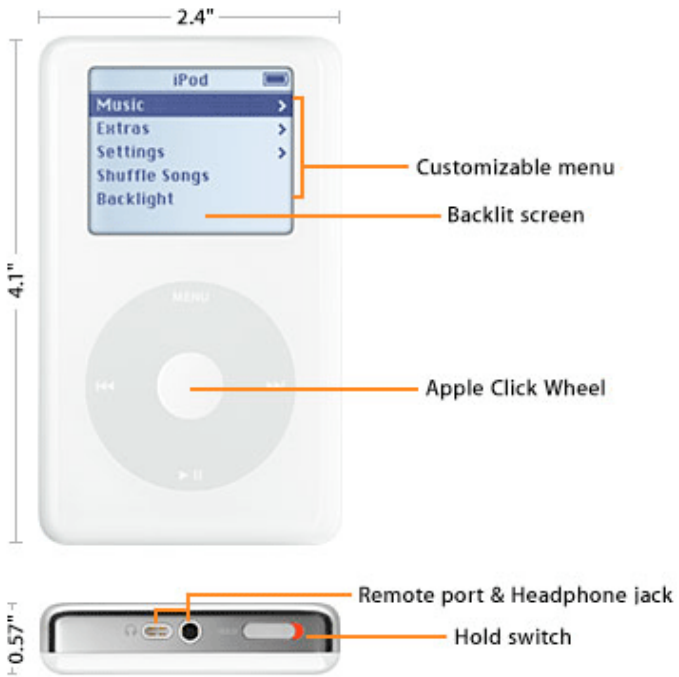
Cursor Invitation

Tooltip Invitation

Make it engaging

Use lightweight events as a welcome mat

Rediscover the hover



Keep actions out of it

Don't make the user afraid to explore

Don't proselytize

Use invitations to aid discoverability

Two challenges: idiom & feature

Adding signposts, always-on clues doesn't scale

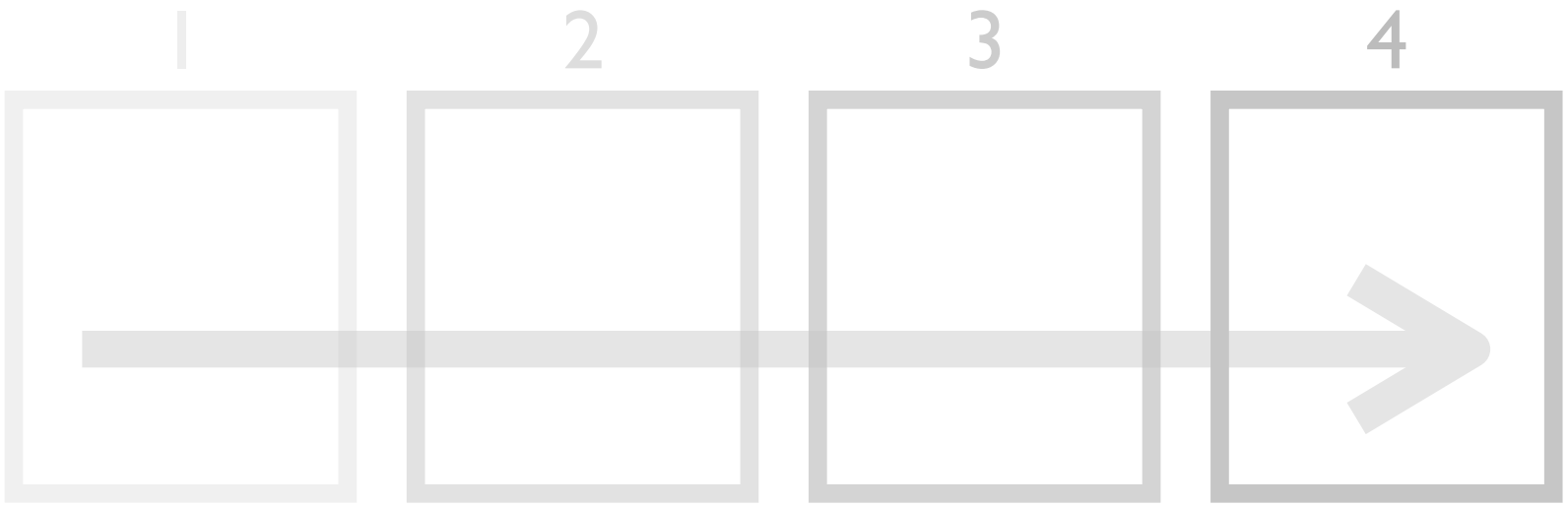
Add tours, help pedals, tips, spotlights

Get the actors involved

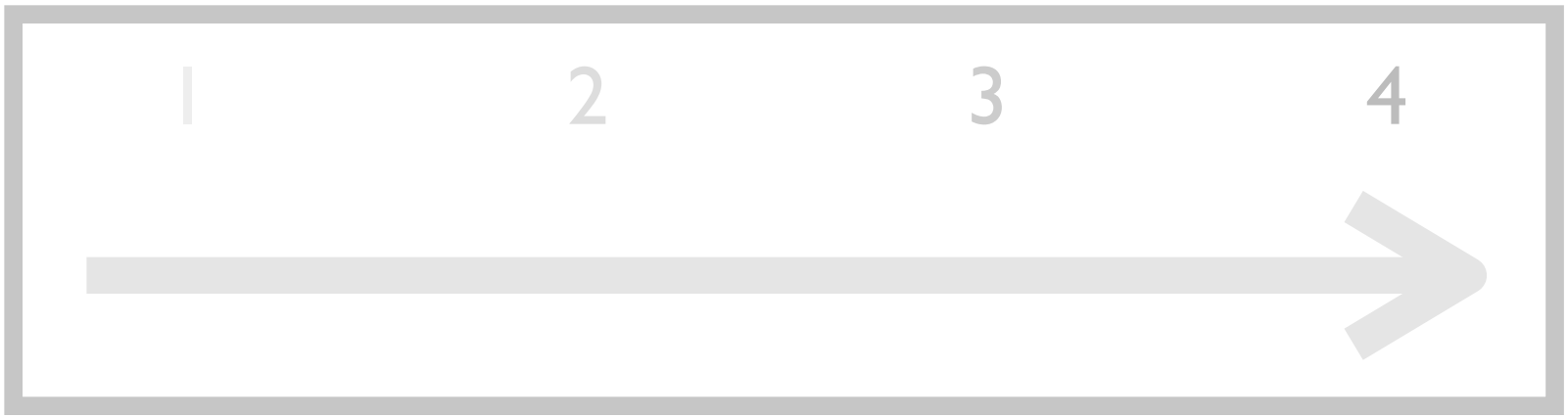
Hover Invitation

Cursor Invitation

Tooltip Invitation



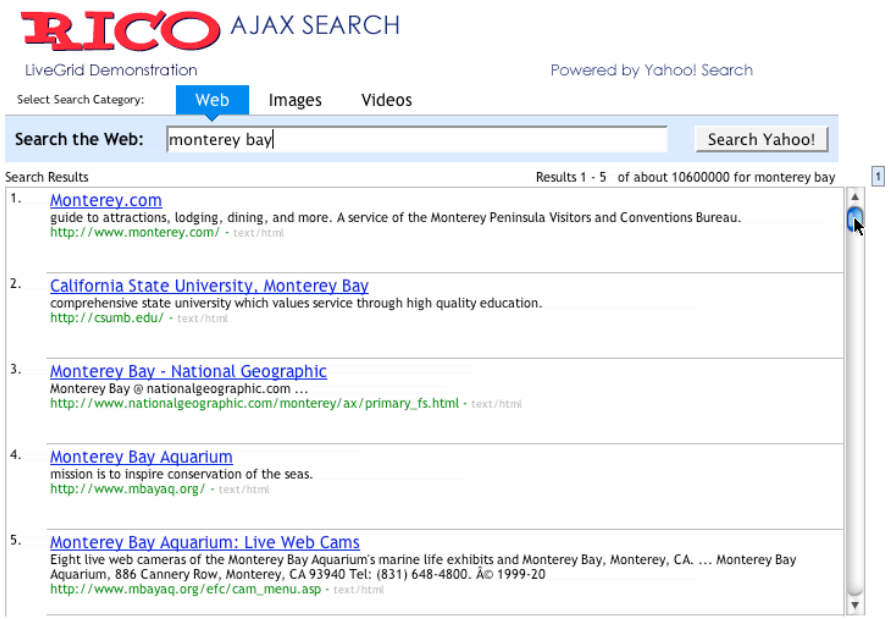
classic flow across pages

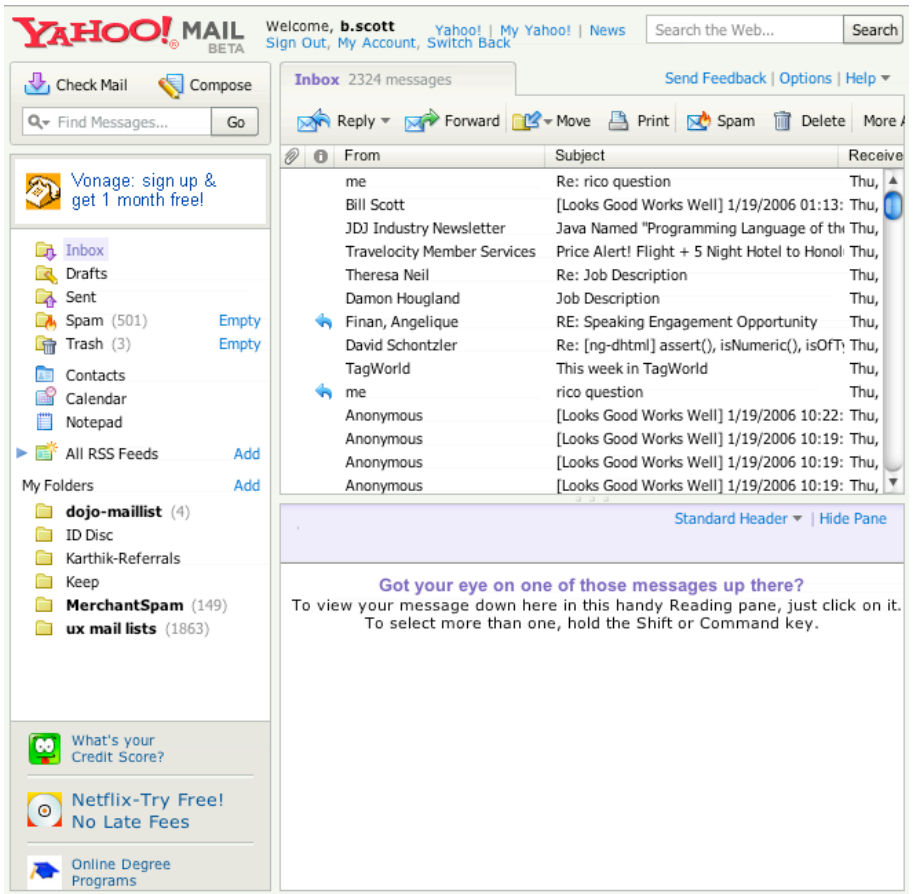


rich flow within page

Cross borders reluctantly

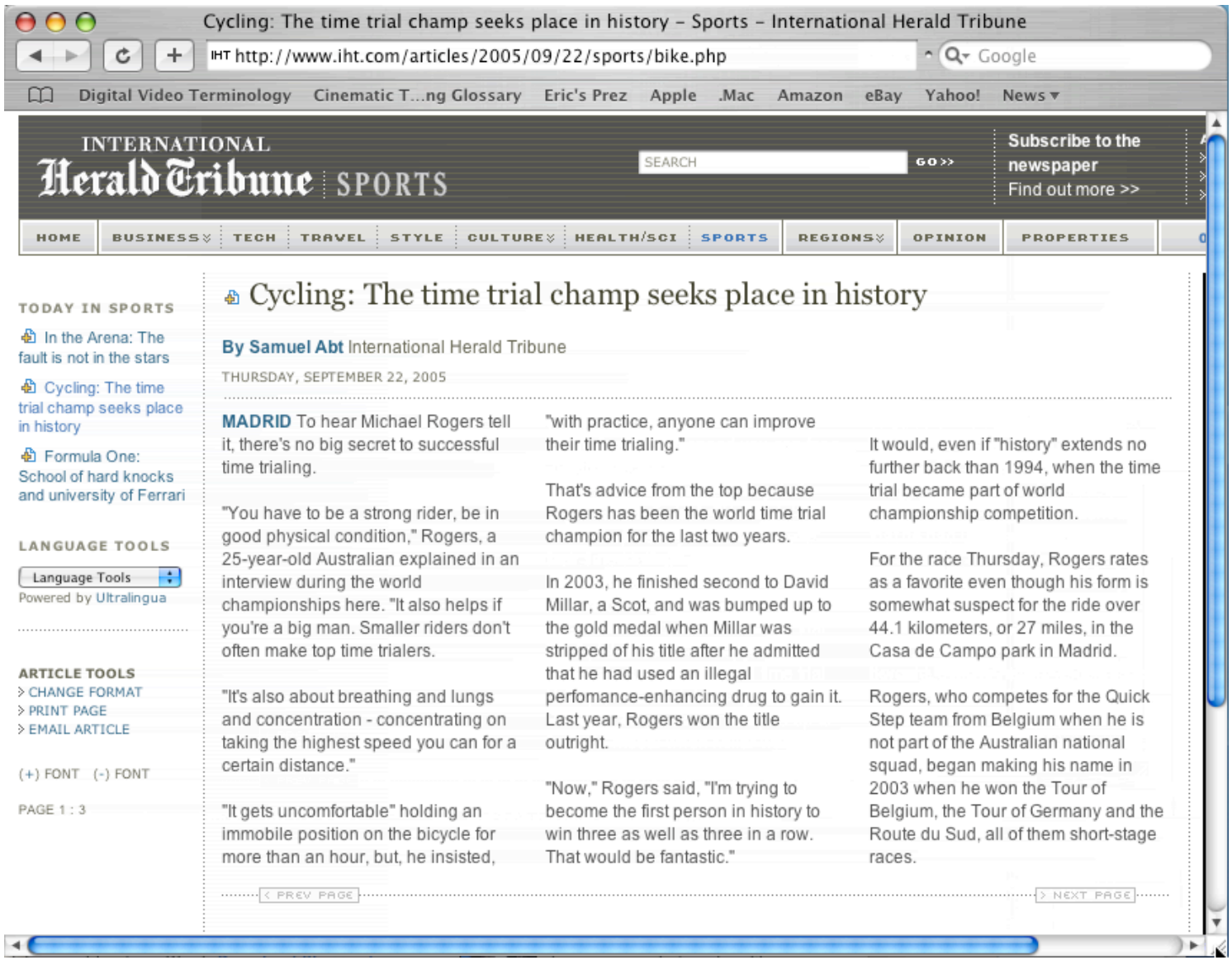
Rico LiveGrid

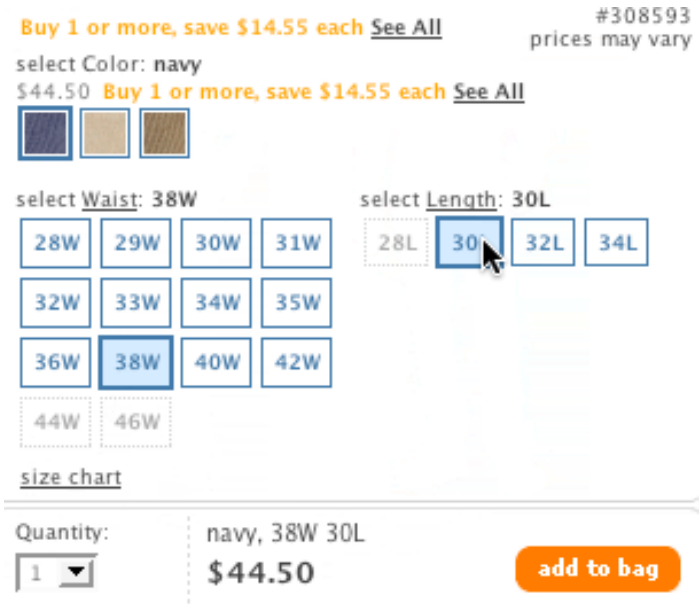




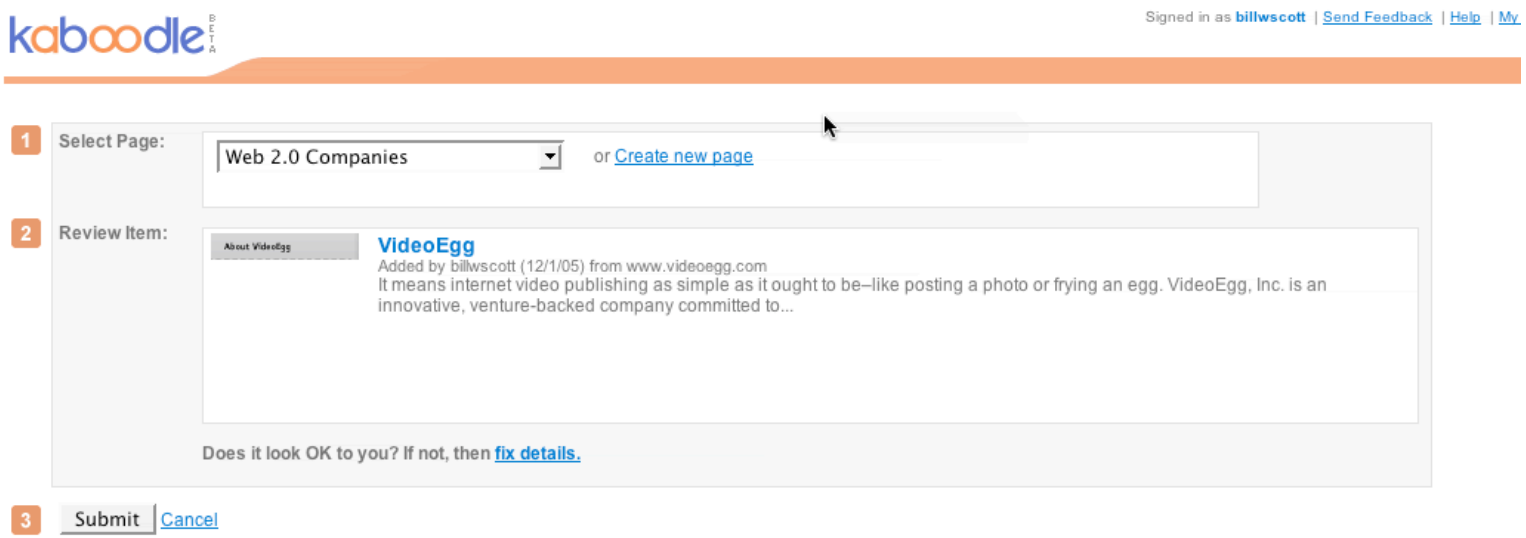
Yahoo! Mail Beta (Oddpost)

- At the very least make your paging fast



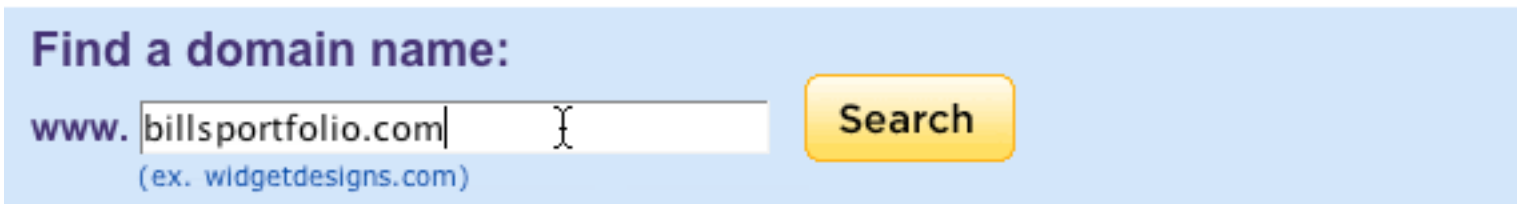

Buy 1 or more, save $14.55 each See All
#308593
prices may vary
select Color: navy
$44.50 Buy 1 or more, save $14.55 each See All
select Waist: 38W
select Length: 30L
28W 29W 30W 31W
28L 30L 32L 34L
32W 33W 34W 35W
36W 38W 40W 42W
44W 46W
size chart
Quantity:
1
navy, 38W 30L
$44.50
add to bag

CH
Search by topic
Contact:
Private
How can we be of service?
Select...

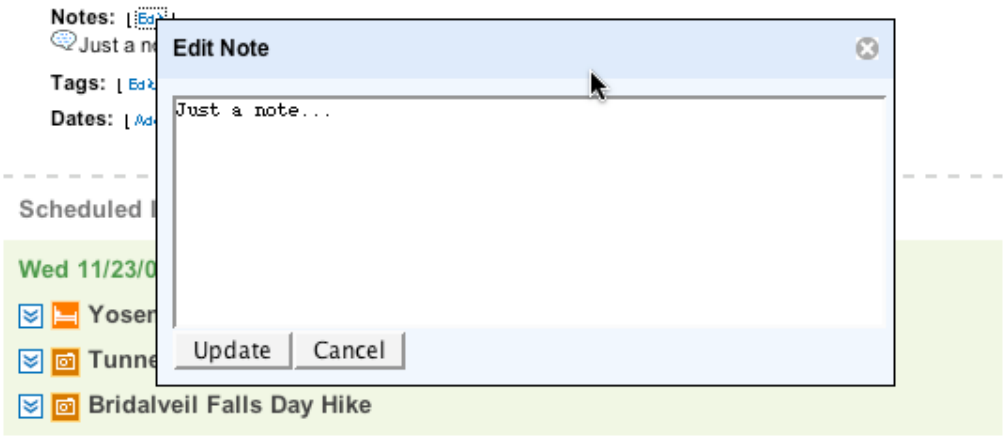

kaboodle BETA
Signed in as billwscott | Send Feedback | Help | My
1 Select Page:
Web 2.0 Companies
or Create new page
2 Review Item:
VideoEgg
Added by billwscott (12/1/05) from www.videoegg.com
It means internet video publishing as simple as it ought to be–like posting a photo or frying an egg. VideoEgg, Inc. is an innovative, venture-backed company committed to...
Does it look OK to you? If not, then fix details.
3 Submit Cancel

more views
select
select Color: babe pink combo
#357223
$14.50
select Size:
XS
S
M
L
XL
XXL
size chart
Quantity:
1
babe pink combo
$14.50
add to bag
please select a Size before adding to bag

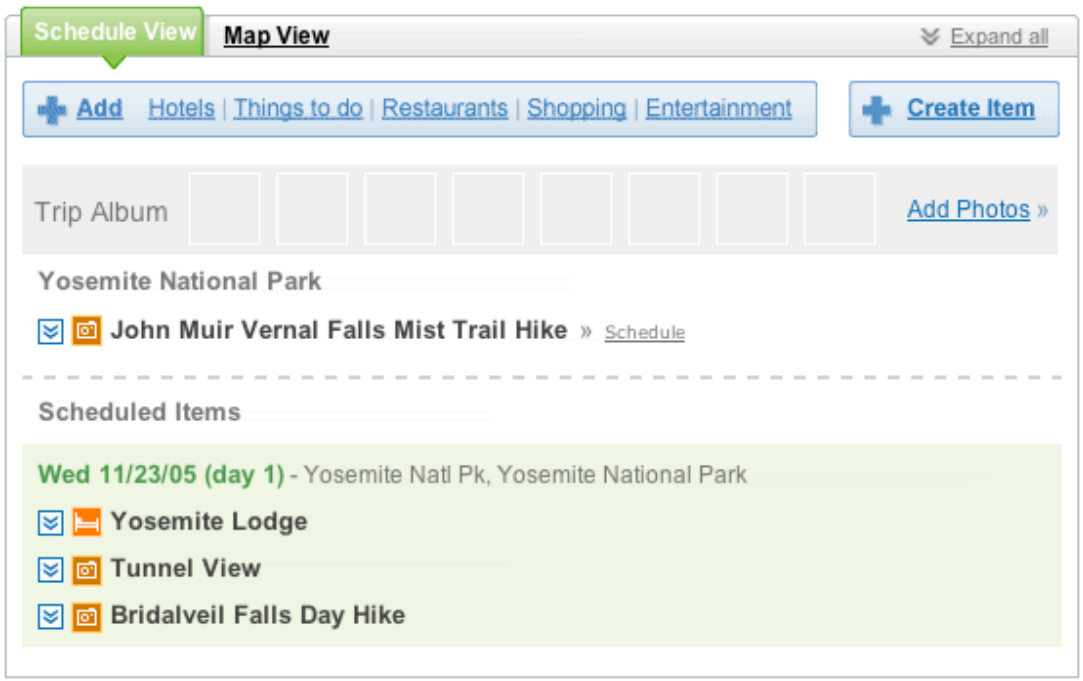
Required information for Google account
Your current email address:
someone@somewhere.com
e.g. myname@example.com. This will be your username and sign-in.
Choose a password:
Password strength: Too short
Minimum of 6 characters in length.

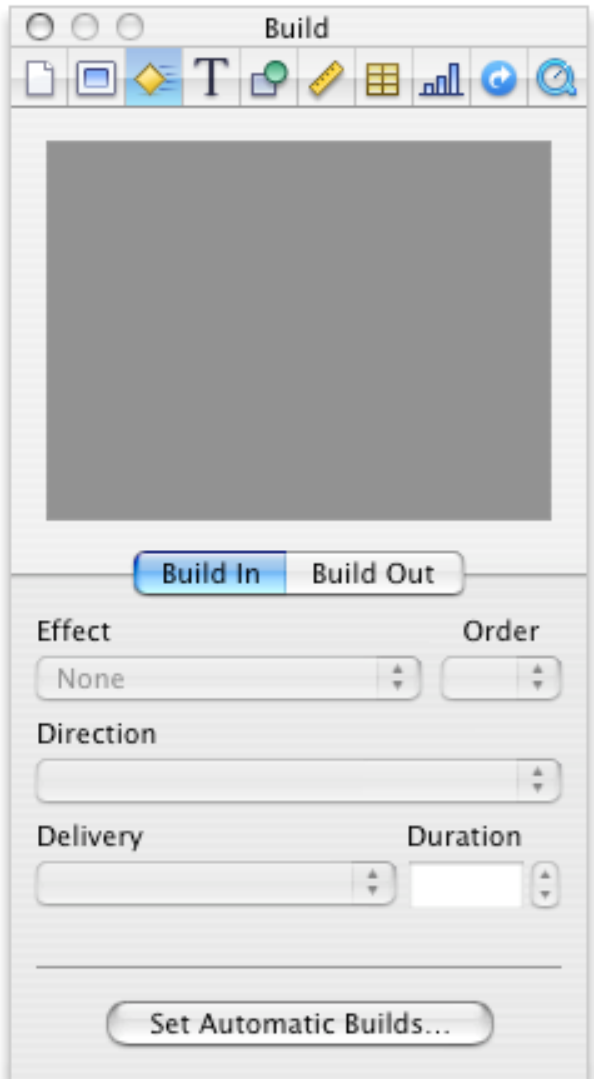

Find a domain name:
www.
billsportfolio.com
(ex. widgetdesigns.com)
Search

- For **introduction** of features
- For giving **instruction**
- For revealing **information**
- For **interrogative** feedback
- For obtaining **input**
- For important **interruptions**
- For **indication** of status or progress
- For offering an **invitation**



Wired News: Top Stories
edit
Christians Code Heavenly Games
Cloning the Best in Show
Brain Workouts May Tone Memory
Movies
edit
Showtimes for 76208 »
Must Love Dogs 1hr 30min - Rated PG-13


Schedule View
Map View
Expand all
Add
Hotels | Things to do | Restaurants | Shopping | Entertainment
Create Item
Trip Album
Add Photos »
Yosemite National Park
John Muir Vernal Falls Mist Trail Hike » Schedule
Scheduled Items
Wed 11/23/05 (day 1) - Yosemite Natl Pk, Yosemite National Park
Yosemite Lodge
Tunnel View
Bridalveil Falls Day Hike


Build
Build In
Build Out
Effect
Order
None
Direction
Delivery
Duration
Set Automatic Builds...

Auburn
113
Citrus Heights
Sacramento
50
Florin
16
Elk Grove
Galt
88
Lodi
12
Oakley
Stockton
4
4
Manteca
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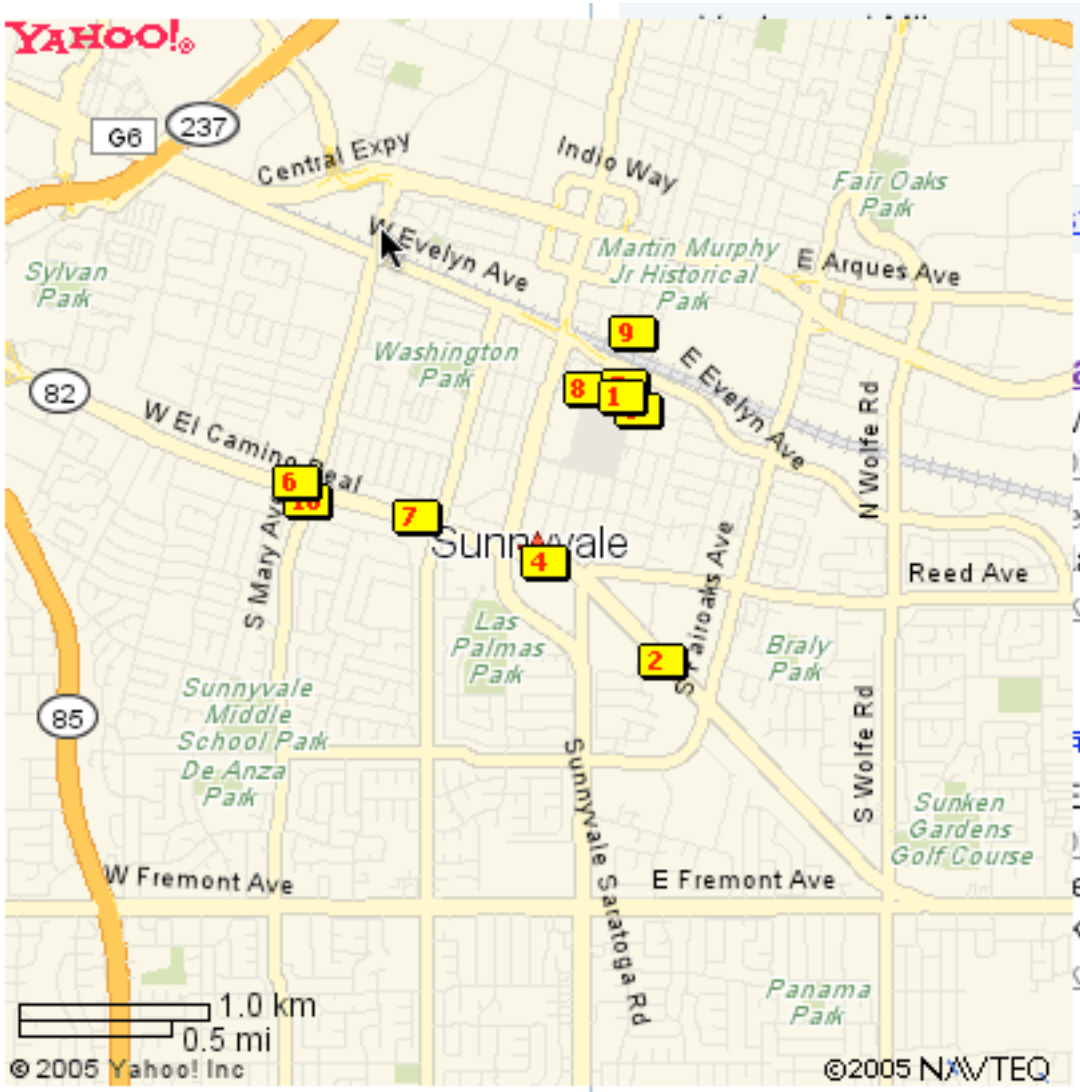
Oakdale
Tracy
108
Reno
N V
San Francisco
C A
Las V
Los Angeles


YAHOO!
G6
237
Central Expy
Indio Way
Fair Oaks Park
W Evelyn Ave
Martin Murphy Jr Historical Park
E Arques Ave
Sylvan Park
Washington Park
E Evelyn Ave
82
W El Camino Real
N Wolfe Rd
S Mary Ave
Sunnyvale
Reed Ave
S Pastoaks Ave
Las Palmas Park
Braly Park
85
Sunnyvale Middle School Park
De Anza Park
S Wolfe Rd
Sunken Gardens Golf Course
W Fremont Ave
E Fremont Ave
Sunnyvale Saratoga Rd
Panama Park
1.0 km
0.5 mi
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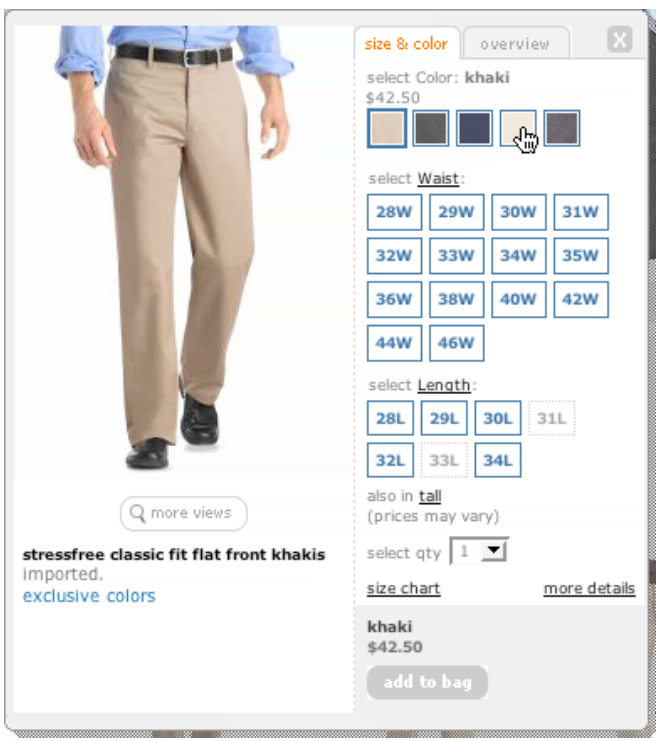
3. Il Postale

Endless Scrolling. Expandable Paging Boundary. Fresh Content. Hover Detail. In Place Drill Down. Inline Assistant. Inline Validation. Validate Then Suggest. On Demand Refresh. Resizable Modules. Scrolling Modules. Detail Zoom. Opacity Focus. Configurable Module-Faceplate. Configurable Module-Flip It. Configurable Module-Inline Configure. Configurable Module-Slide Out Drawer. Slide Out. Flip. Opacity Fade.

Rethink process flows

Its the user's model, not the page model

Every page jump is a mental speed bump



Rethink process flows

Its the user's model, not the page model

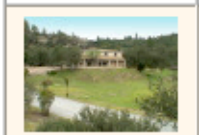
Every page jump is a mental speed bump

Rethink paging

Its the user's model, not the paging model

Use scrolling for "owned" data

Watch out for dual scroll bar issue

Photo Click for info	Price	Bd/Ba Sq Ft	Address and Area Presented By	MLS # (Click for info)	More Photos	Virtual Tours
	$1,750,000 Single Res	6+, 4+ 3700	14080 BEAR CREEK RD Boulder Creek, CA 95006 (San Lore Valley) Schwarzbach Associates			
	$1,995,000 Single Res	6+, 4+ 5675	17617 MOUNTAIN CHARLIE RD LOS GATOS, CA 95033 (Unincorporated Los Gatos Mtns) Almaden Oaks Realtors			
	$2,286,000 Single Res	5, 4+ 4800	20930 PANORAMA DR Los Gatos, CA 95033 (Los Gatos M Alain Pinel Realtors			
	$2,750,000 Single Res	5, 4+ 5000	155 LARITA DR Ben Lomond, CA 95005 (San Lorer Valley) Network Alliance Real Estate			
	$2,777,000 Single Res	5, 4+ 5819	777 HAPPY VALLEY RD Scotts Valley, CA 95065 (Scotts Val Linda Burroughs Real Estate			

New Search <<Pre

RICO AJAX SEARCH

LiveGrid Demonstration

Powered by Yahoo! Search

Select Search Category: Web Images Videos

Search Images: flowers Search Yahoo!

Search Results Results 1 - 5 of about 1580284 for flowers

flowers 025
flowers021jpg 110k 29Feb2004 flowers022jpg 783k 29Feb2004 flowers023jpg 186k
http://wp.li.ru/flowers
1024x768 - jpeg fmt - 0.3MB

flowers 063
flowers059jpg 122k 29Feb2004 flowers060jpg 134k 29Feb2004 flowers061jpg 120k
http://wp.li.ru/flowers
1024x768 - jpeg fmt - 0.1MB

flowers 045
flowers041jpg 277k 29Feb2004 flowers042jpg 125k 29Feb2004 flowers043jpg 744k
http://wp.li.ru/flowers
1024x768 - jpeg fmt - 0.1MB

flowers 076
flowers072jpg 820k 29Feb2004 flowers073jpg 160k 29Feb2004 flowers074jpg 120k
http://wp.li.ru/flowers
1024x768 - jpeg fmt - 0.1MB

flowers 019
flowers015jpg 781k 29Feb2004 flowers016jpg 455k 29Feb2004 flowers017jpg 143k
http://wp.li.ru/flowers
1024x768 - jpeg fmt - 0.3MB

Rethink process flows

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Its the user's model, not the paging model

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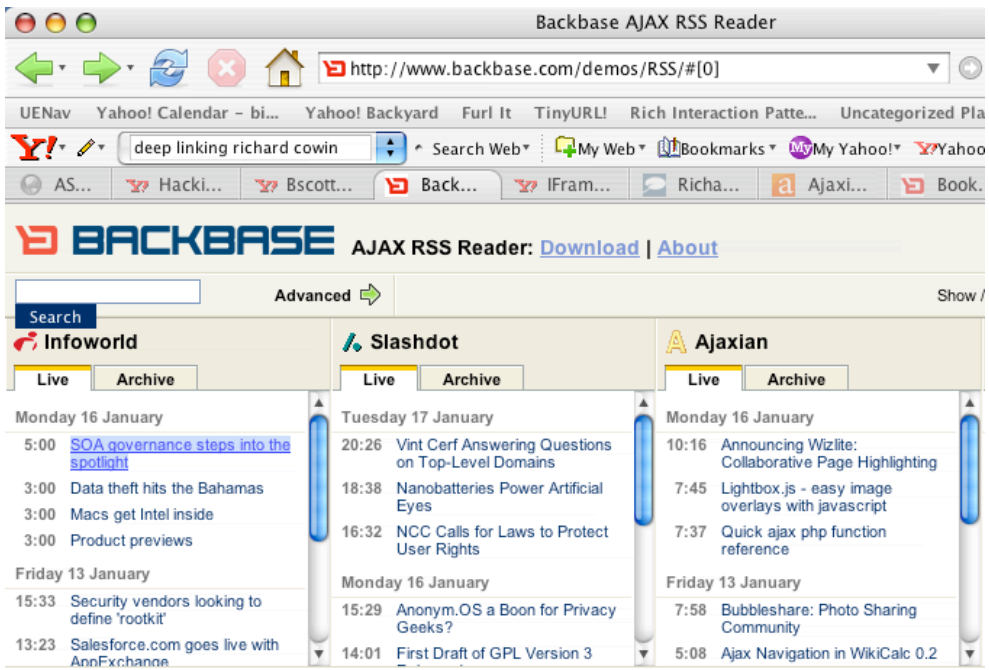


Plan for linking, crawling and back button

Not everything is a single page application

What will the user think the back button does?

Use overlays

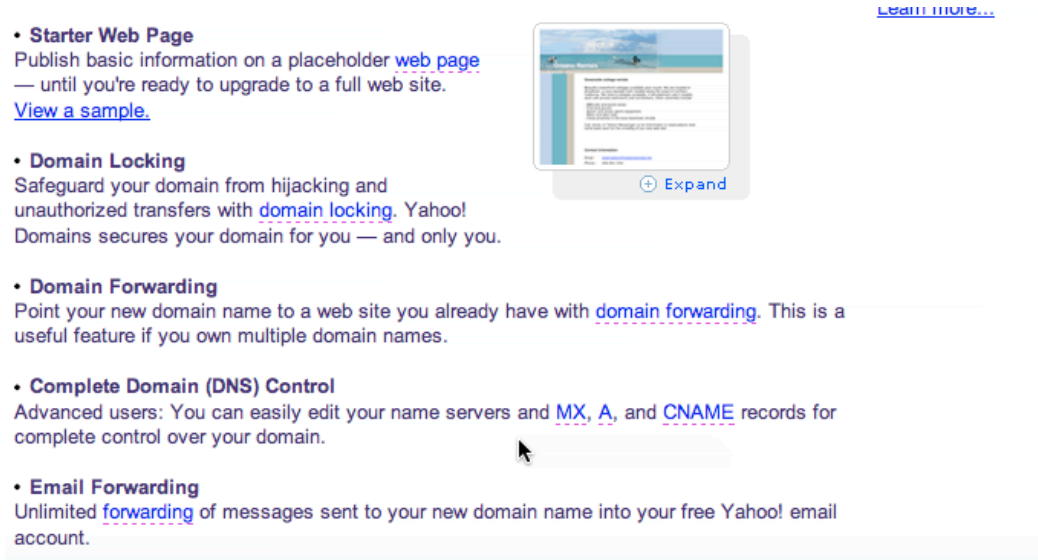
For momentary interruption

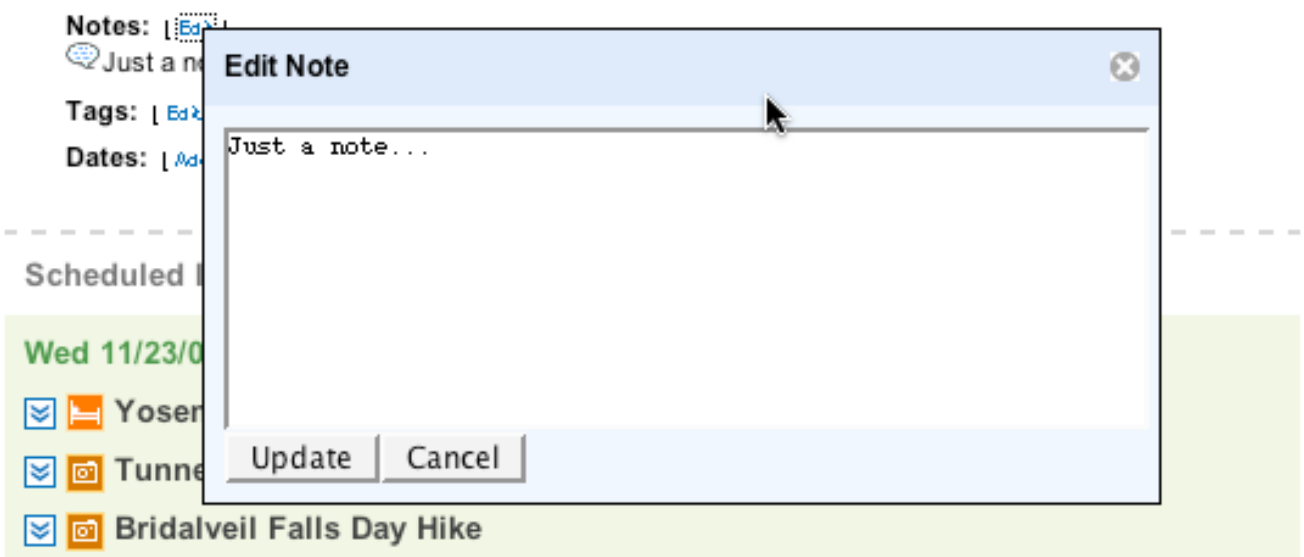
Replace page transition

When editing an individual, more complex item

Be symmetrical

Not disturb the page



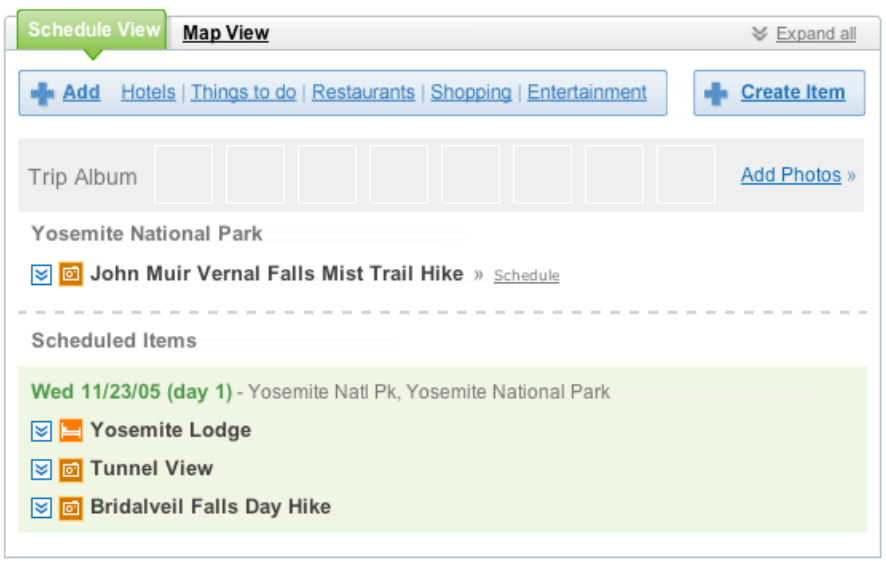


Use overlays

For momentary interruption
Replace page transition
When editing an individual, more complex item
Be symmetrical
Not disturb the page

Use in-context expands

For editing part of a collection
Need to see surrounding context
For managing content modules



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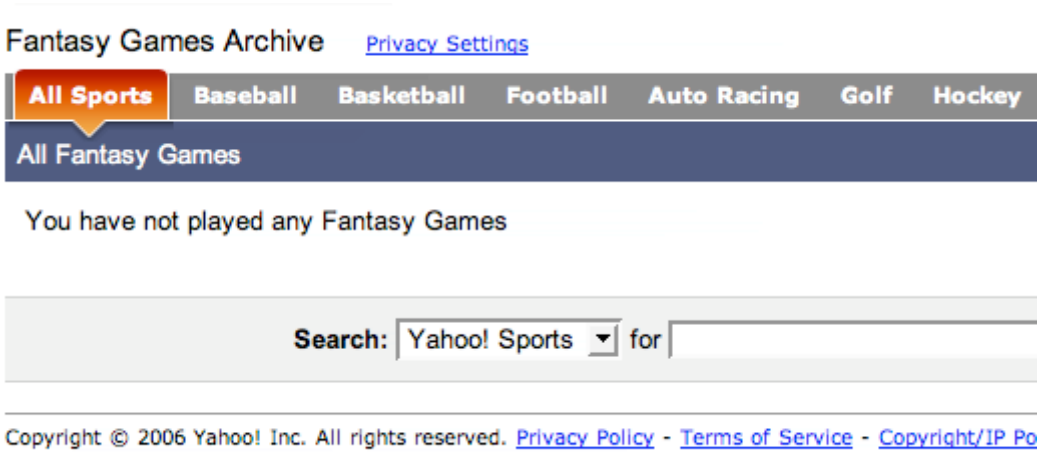
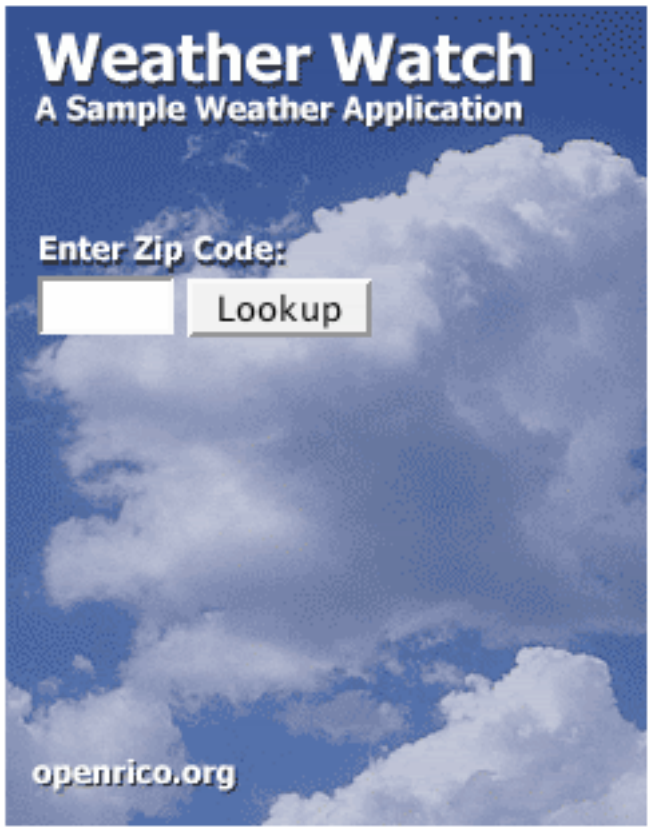
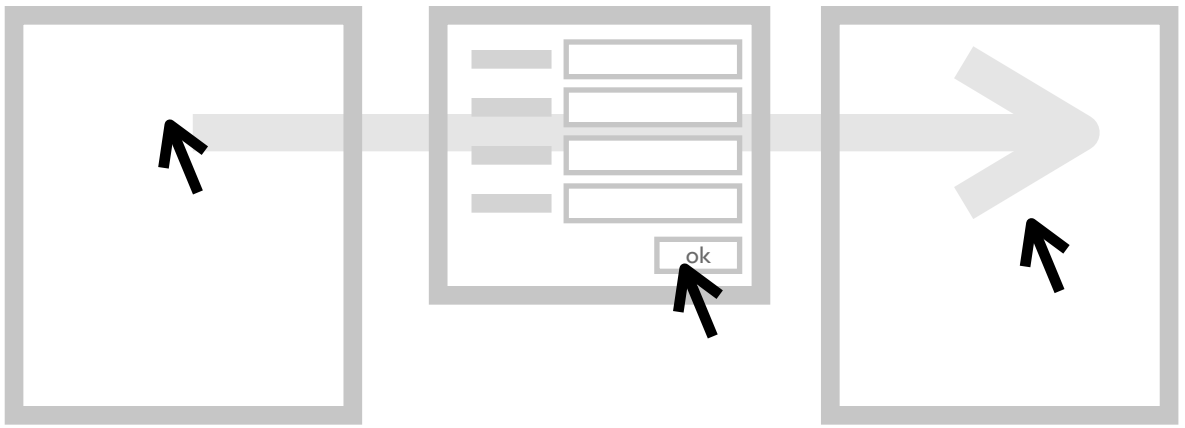


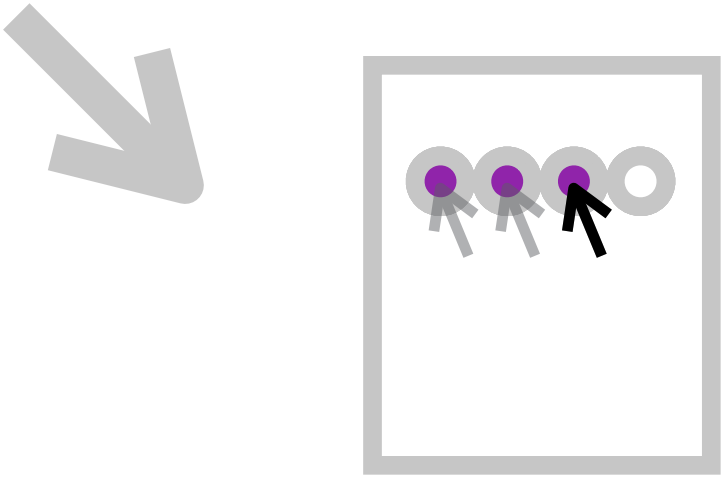


Use space creatively

Slide, zoom, flip, lens, fade
Think of your backstage



heavy click-weight



light-weight actions

Leave a light footprint

1 2 3 4 >> See All

straight fit

loose staight fit (sandblasted vintage)
$49.50

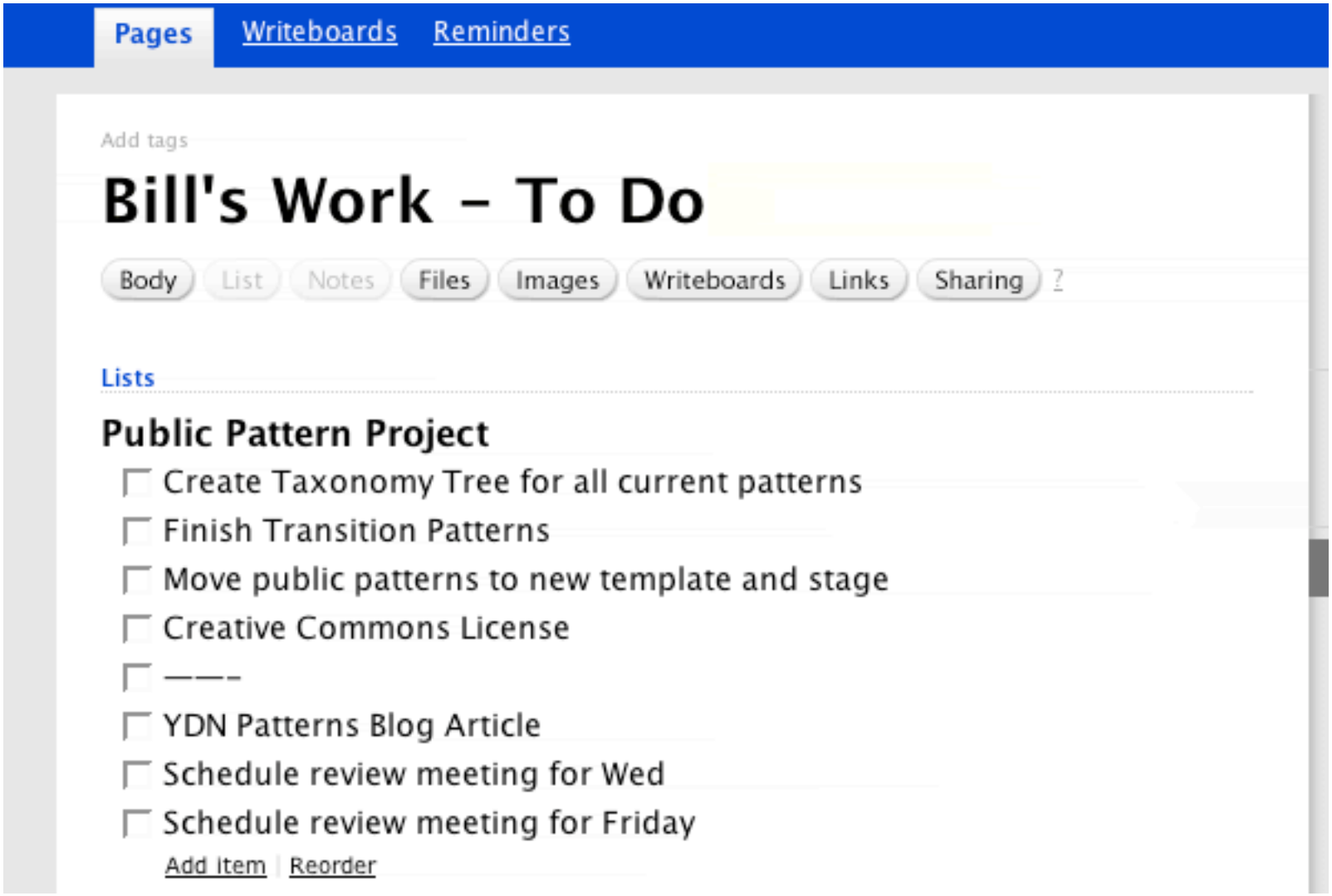
straight fit corduroy pants
$44.50
Buy 1 or more, save $14.55 each See All

straight fit (blasted black)
$49.50

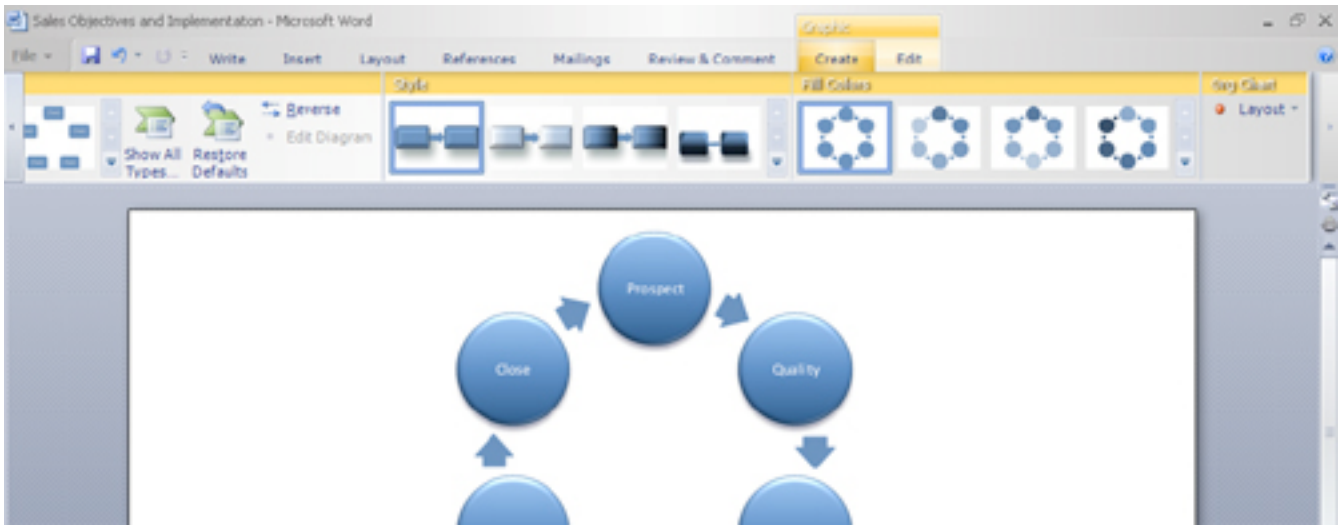
straight fit (dark authentic)
$44.50

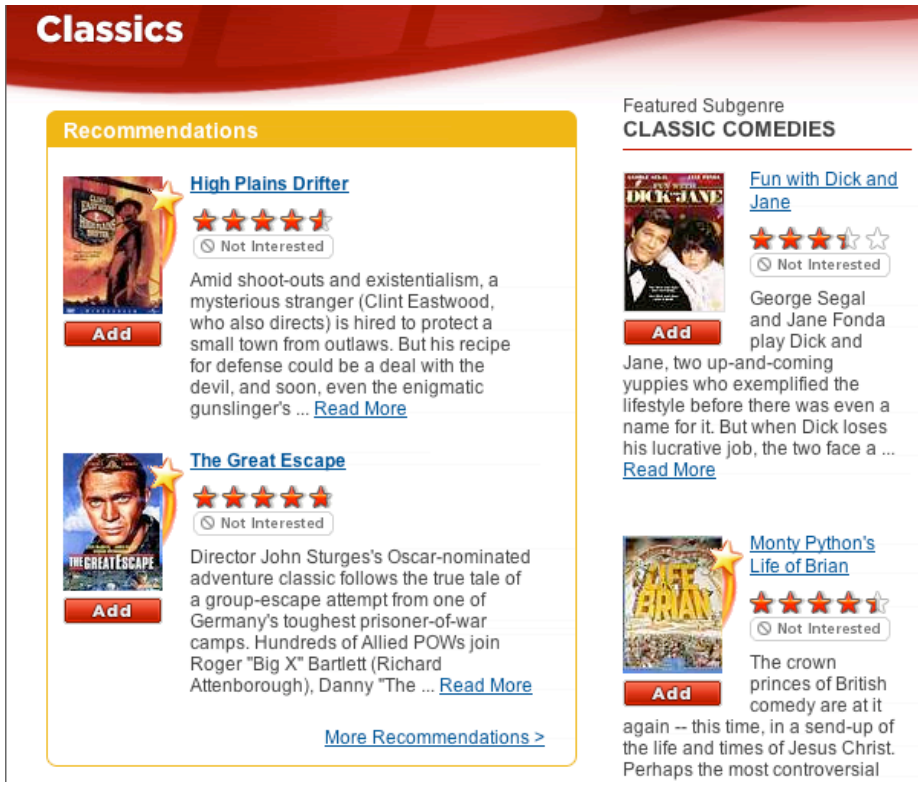
Tunnel View View | Map | Delete

Bridalveil Falls Day Hike


Pages
Writeboards
Reminders
Add tags
Bill's Work – To Do
Body
List
Notes
Files
Images
Writeboards
Links
Sharing
Lists
Public Pattern Project
Create Taxonomy Tree for all current patterns
Finish Transition Patterns
Move public patterns to new template and stage
Creative Commons License
———
YDN Patterns Blog Article
Schedule review meeting for Wed
Schedule review meeting for Friday
Add Item | Reorder

- Microsoft Vista, Office 12
  Contextual Command Tabs




Classics
Recommendations
High Plains Drifter
Not Interested
Add
Amid shoot-outs and existentialism, a mysterious stranger (Clint Eastwood, who also directs) is hired to protect a small town from outlaws. But his recipe for defense could be a deal with the devil, and soon, even the enigmatic gunslinger's ... Read More
The Great Escape
Not Interested
Add
Director John Sturges's Oscar-nominated adventure classic follows the true tale of a group-escape attempt from one of Germany's toughest prisoner-of-war camps. Hundreds of Allied POWs join Roger "Big X" Bartlett (Richard Attenborough), Danny "The ... Read More
More Recommendations >
Featured Subgenre
CLASSIC COMEDIES
Fun with Dick and Jane
Not Interested
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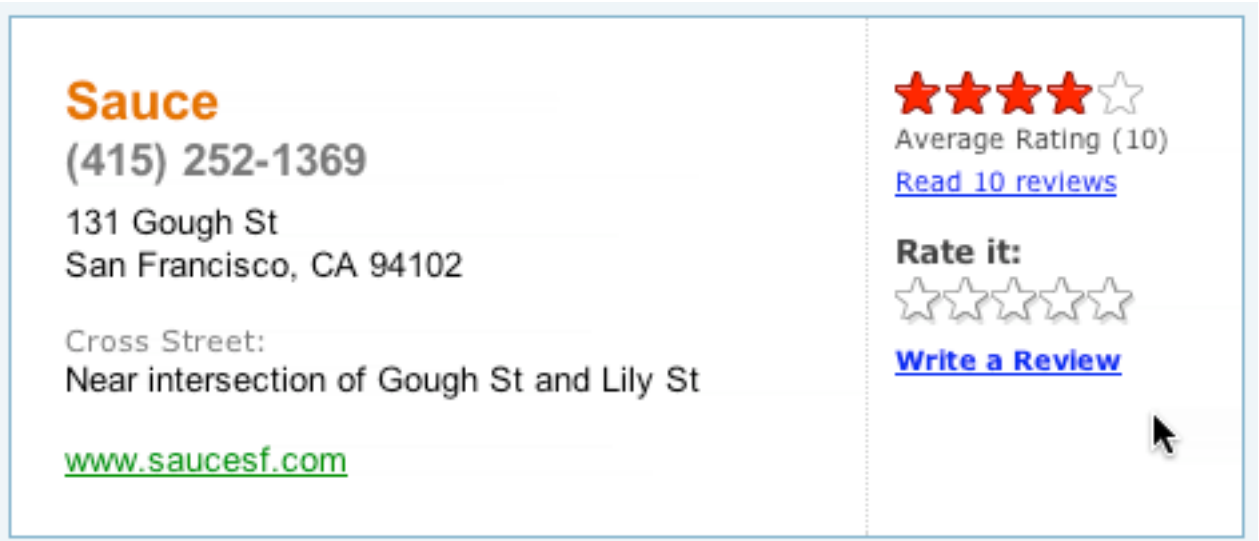
George Segal and Jane Fonda play Dick and Jane, two up-and-coming yuppies who exemplified the lifestyle before there was even a name for it. But when Dick loses his lucrative job, the two face a ... Read More
Monty Python's Life of Brian
Not Interested
Add
The crown princes of British comedy are at it again -- this time, in a send-up of the life and times of Jesus Christ. Perhaps the most controversial

RECOMMEND THIS STORY
Recommend It:
Average (63 votes)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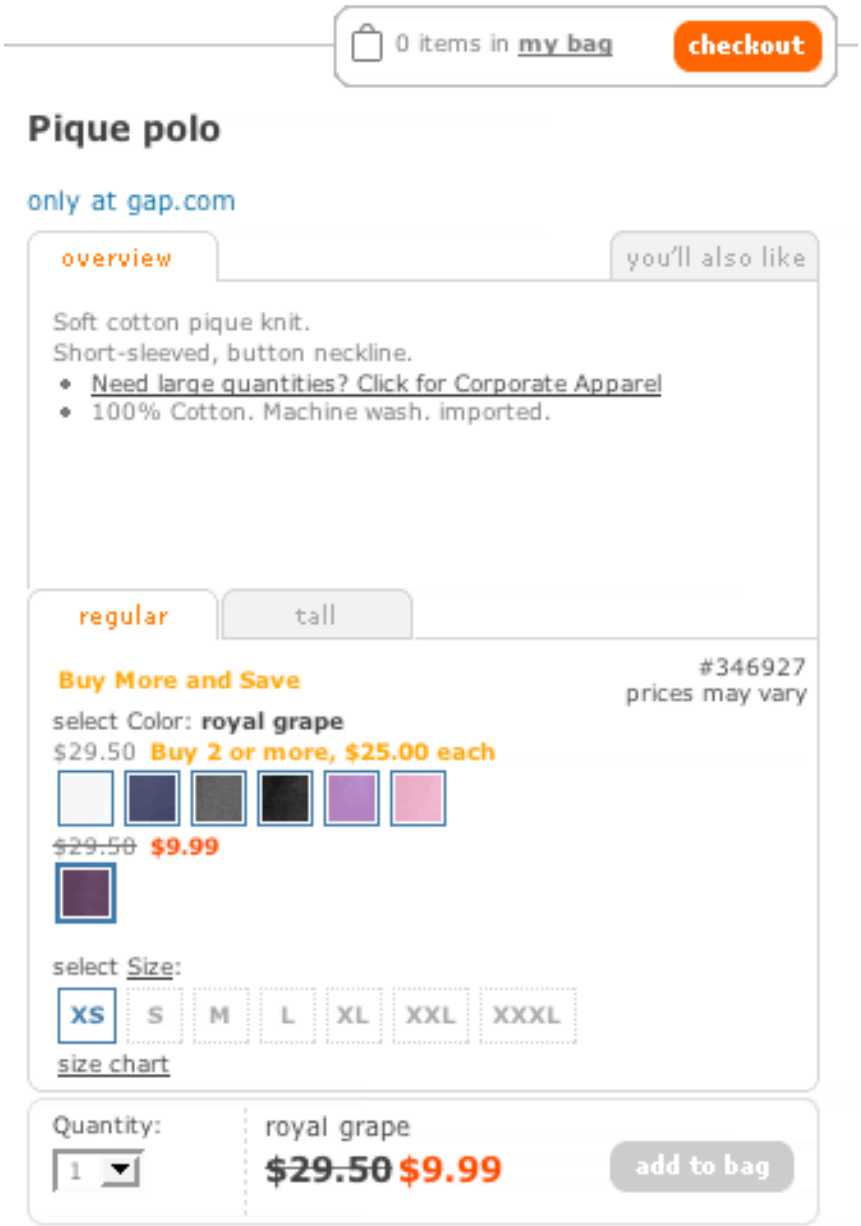
(415) 252-1369
131 Gough St
San Francisco, CA 94102
Cross Street:
Near intersection of Gough St and Lily St
www.saucesf.com
Average Rating (10)
Read 10 reviews
Rate it:
Write a Review


0 items in my bag
checkout
Pique polo
only at gap.com
overview
you'll also like
Soft cotton pique knit.
Short-sleeved, button neckline.
Need large quantities? Click for Corporate Apparel
100% Cotton. Machine wash. imported.
regular
tall
Buy More and Save
#346927
prices may vary
select Color: royal grape
$29.50 Buy 2 or more, $25.00 each
$29.50 $9.99
select Size:
XS
S
M
L
XL
XXL
XXXL
size chart
Quantity:
1
royal grape
$29.50 $9.99
add to bag

Buy now with 1-Click®

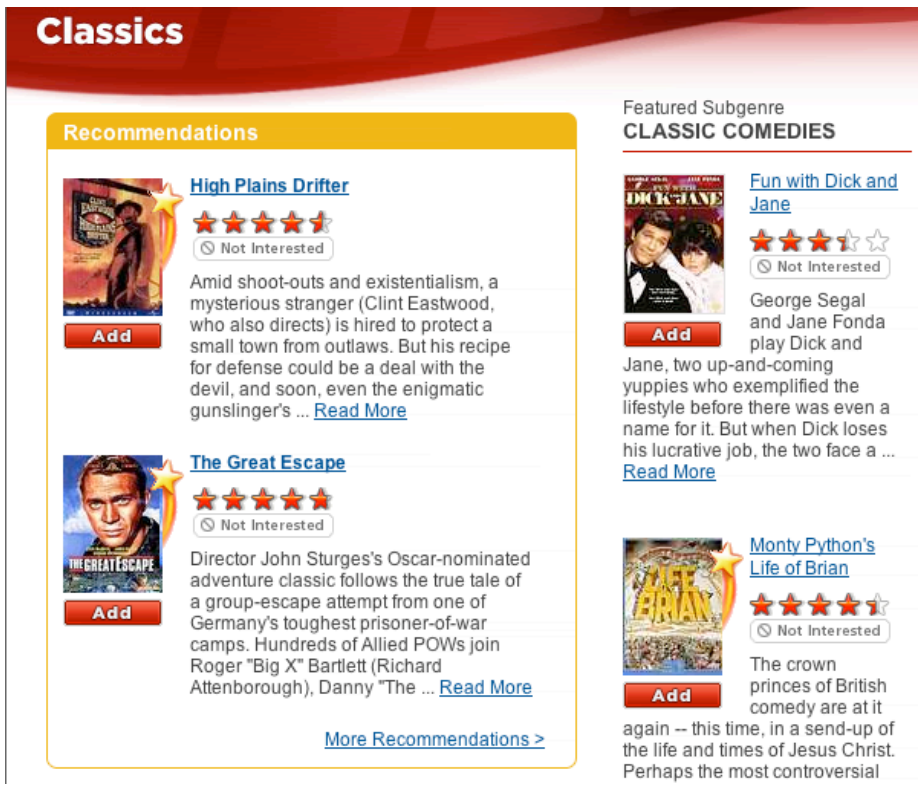
http://www.flock.com/start/

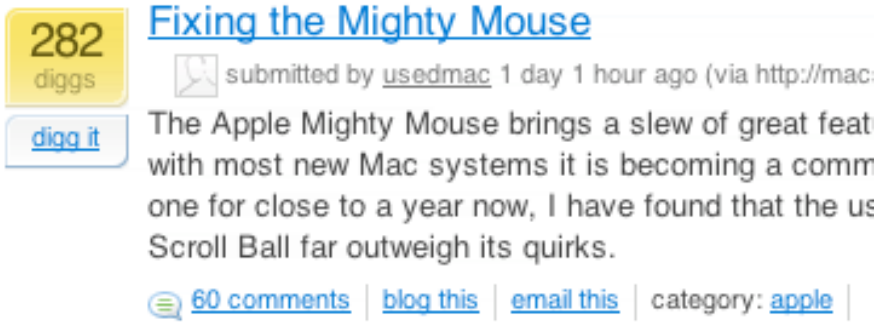
Auto Save. In Context Tools. In Page Action. Remembered Collection. Remembered Preferences. Auto Form Fill. Live Ratings.

Watch your click weight

Keep actions immediate and light

Count “clicks”





Watch your click weight

Keep actions immediate and light

Count "clicks"

Design for engaging moments

Use invitations

Keep it fun, exciting and light

Treat it like an impulse aisle

Watch your click weight

Keep actions immediate and light

Count "clicks"

Design for engaging moments

Use invitations

Keep it fun, exciting and light

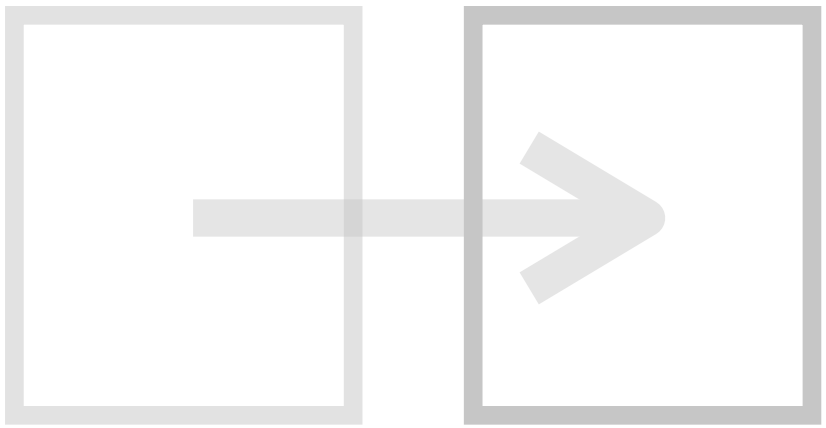
Treat it like an impulse aisle

Use lightweight events

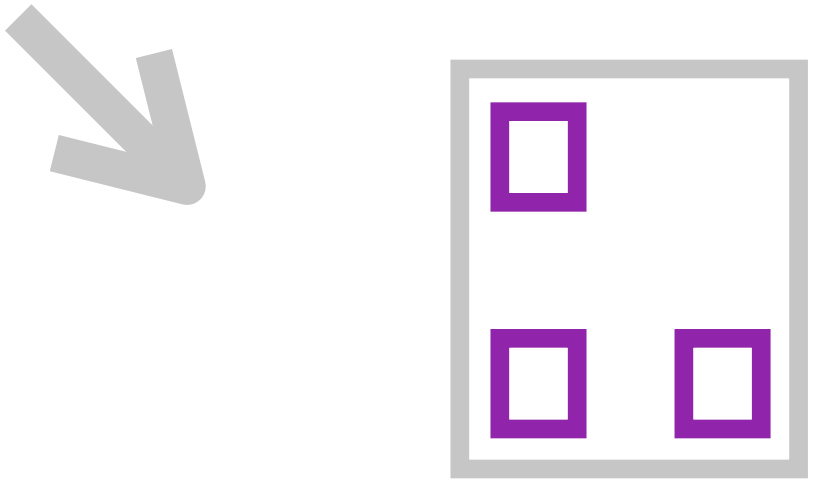
Hover

Blur, focus

Click. Avoid double-click



page-based transitions



multiple transitions,
single page

Show transitions

Yosemite Thanksgiving [Edit]
A trip to YOSEMITE NATIONAL PARK
Fun in Yosemite with Daniel & Kids
This trip is public
Sharing settings
Email this trip
[Update photos]
Schedule View
Map View
Expand all
Add
Hotels | Things to do | Restaurants | Shopping | Entertainment
Create Item
Trip Album
Add Photos »
Yosemite National Park
John Muir Vernal Falls Mist Trail Hike » Schedule
Scheduled Items
Wed 11/23/05 (day 1) - Yosemite Natl Pk, Yosemite National Park
Yosemite Lodge
From $97.00 to $146.00 per night. Reserve Now
559-252-4848
Yosemite Natl Pk, CA 95389
United States
In the valley of Yosemite National Park
Notes: [Edit]
Tags: [Edit]
yosemite, hiking

Women GapBody GapMaternity GapKids babyGap

my account
see order status
sign in

3 items in my bag checkout

Shoes, Belts & More

1 2 >> See All

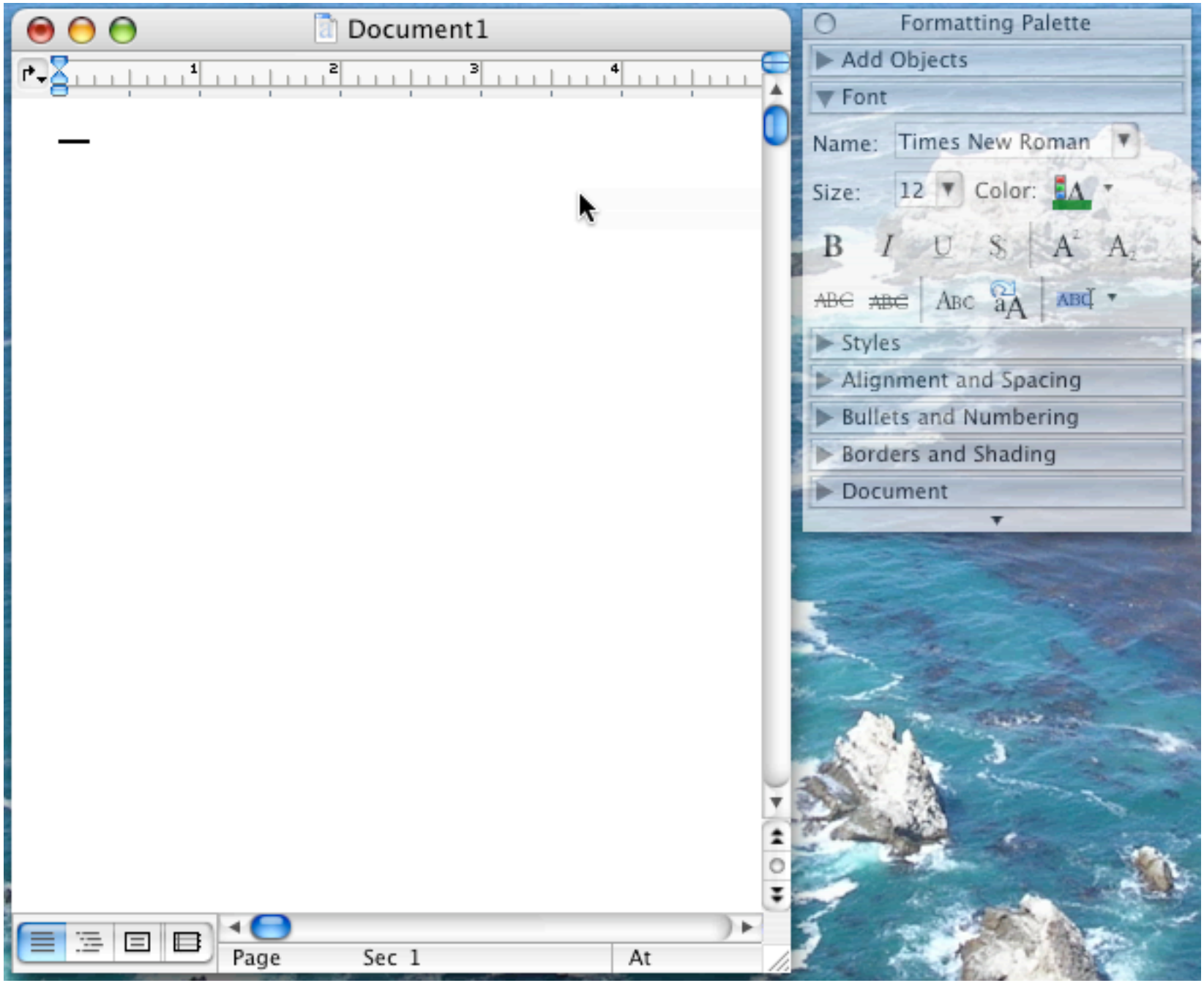
bags

Premium canvas duffle bag
$49.50

urban nylon sling
$34.50

urban nylon backpack
$29.50

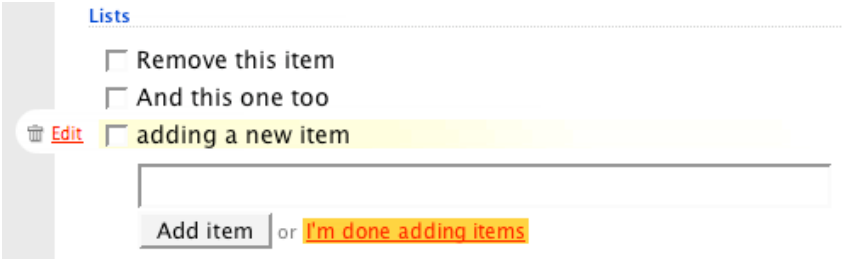
nylon commuter bag
$68.00

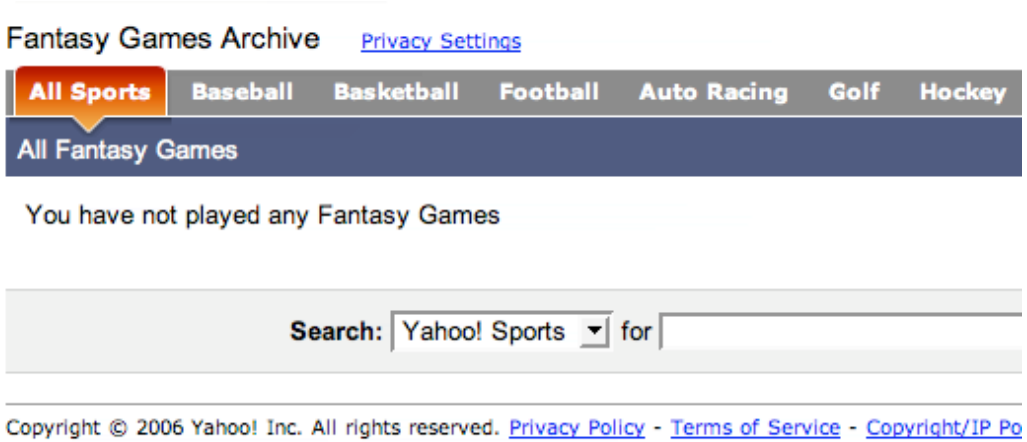

Document1
Formatting Palette
Add Objects
Font
Name: Times New Roman
Size: 12
Color:
Styles
Alignment and Spacing
Bullets and Numbering
Borders and Shading
Document
Page
Sec 1
At

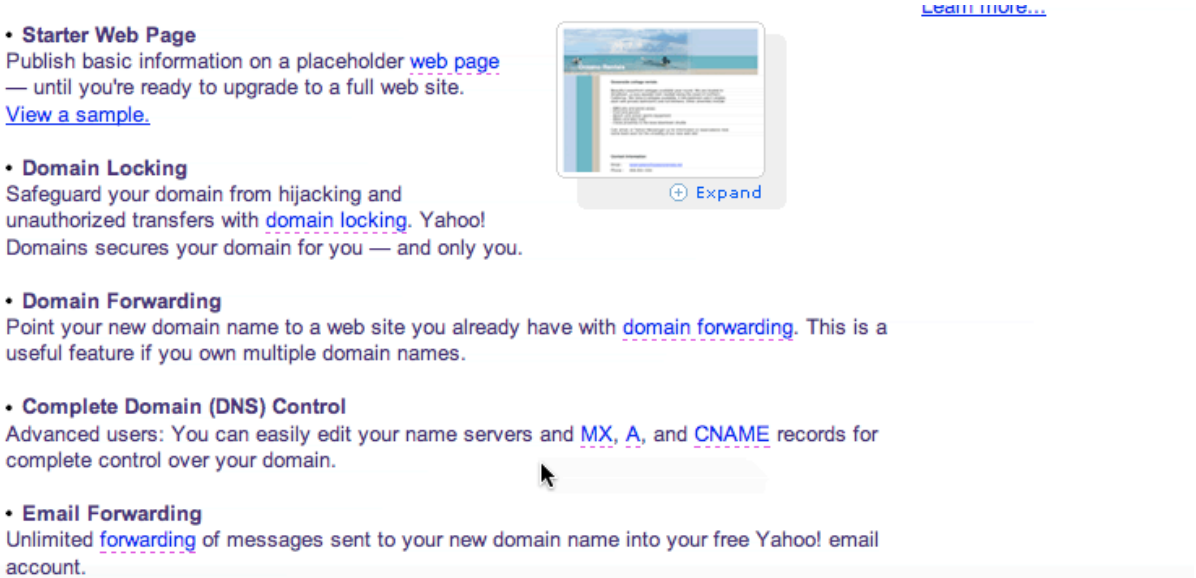
digg spy: a real-time view of digg

spy on all stories | spy on queued stories | spy on front page stories

What?	Diggs	Story
	+695	**Nintendo DS download station finder!** http://www.nintendo.com/dsdownloadstation/
	+1399	**How To Build a Game In A Week From Scratch With No..** http://www.gamedev.net/reference/articles/article2...
	+86	**David Hahn - The kid who built a nuclear reactor i...** http://en.wikipedia.org/wiki/David_Hahn
	+201	**Another Apple Mac mini Dual Core 1.66GHz Review** http://reviews.designtechnica.com/review3531.html
	+85	**David Hahn - The kid who built a nuclear reactor i...** http://en.wikipedia.org/wiki/David_Hahn


Lists
Remove this item
And this one too
Edit
adding a new item
Add item
or
I'm done adding items


Fantasy Games Archive
Privacy Settings
All Sports
Baseball
Basketball
Football
Auto Racing
Golf
Hockey
All Fantasy Games
You have not played any Fantasy Games
Search:
Yahoo! Sports
for
Copyright © 2006 Yahoo! Inc. All rights reserved. Privacy Policy - Terms of Service - Copyright/IP Po


• Starter Web Page
Publish basic information on a placeholder web page — until you're ready to upgrade to a full web site.
View a sample.
Expand
• Domain Locking
Safeguard your domain from hijacking and unauthorized transfers with domain locking. Yahoo! Domains secures your domain for you — and only you.
• Domain Forwarding
Point your new domain name to a web site you already have with domain forwarding. This is a useful feature if you own multiple domain names.
• Complete Domain (DNS) Control
Advanced users: You can easily edit your name servers and MX, A, and CNAME records for complete control over your domain.
• Email Forwarding
Unlimited forwarding of messages sent to your new domain name into your free Yahoo! email account.

Auburn
Citrus Heights
Sacramento
Florin
Elk Grove
Galt
Lodi
Oakley
Stockton
Manteca
Tracy
Oakdale
Reno NV
San Francisco
CA
Las V
Los Angeles
113
50
16
88
12
4
4
108
120

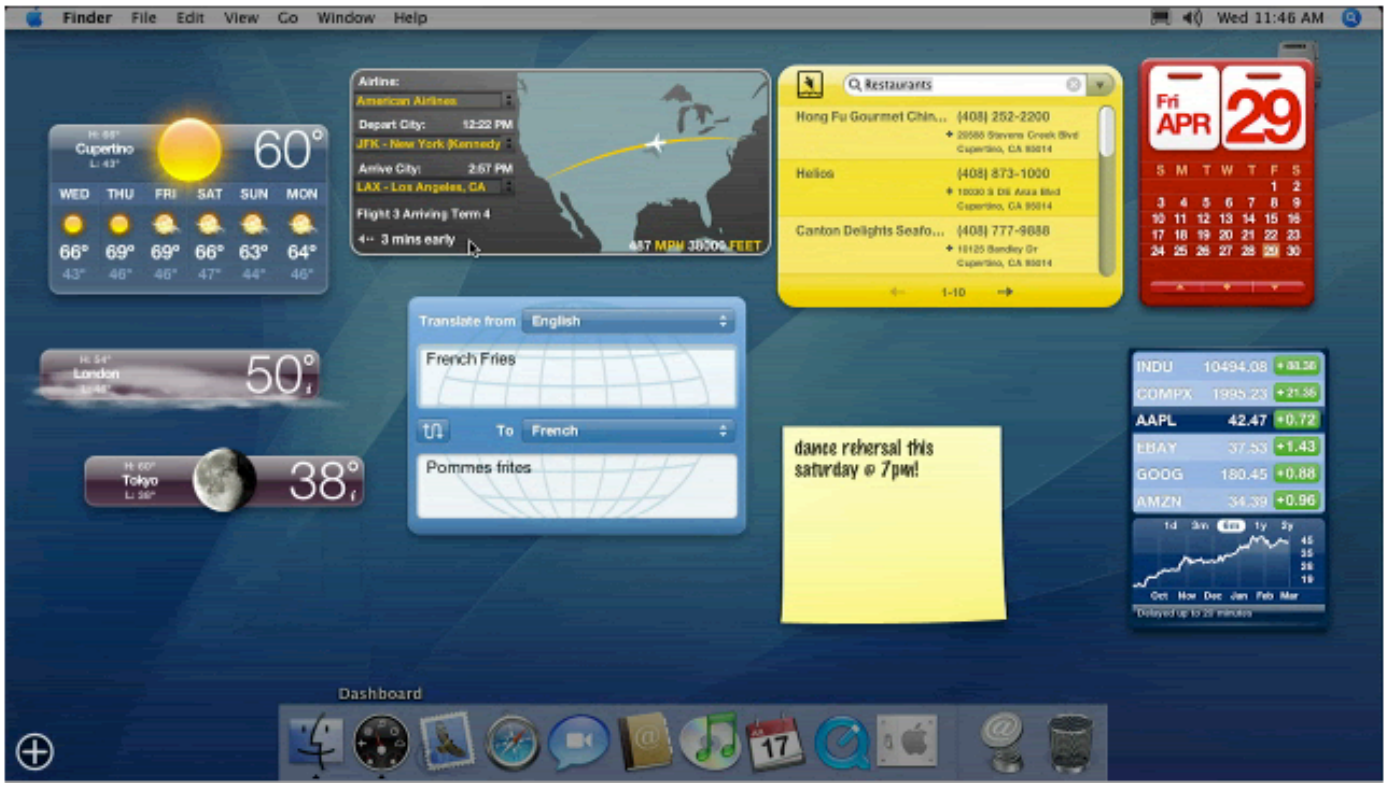
- **Brighten.** Raise importance
- **Cross Fade.** One leaves, another enters
- **Dim.** Lower importance
- **Expand.** Open in context of others
- **Fade In.** Good for adds
- **Fade Out.** Good for deletes
- **Flip.** Edit configuration
- **Animate.** Change relationship, tweening
- **Self-Healing.** After delete or "yank"
- **Collapse.** Close in context of others
- **Slide.** Similar to expand but child window

Transition. Brighten Transition. Cross Fade Transition. Dim Transition. Expand Transition. Fade In Transition. Fade Out Transition. Flip Transition. Animate Transition. Self-Healing Transition. Collapse Transition. Slide Transition.

Speak to the BRAIN

Understanding attention processing

Sending the wrong message



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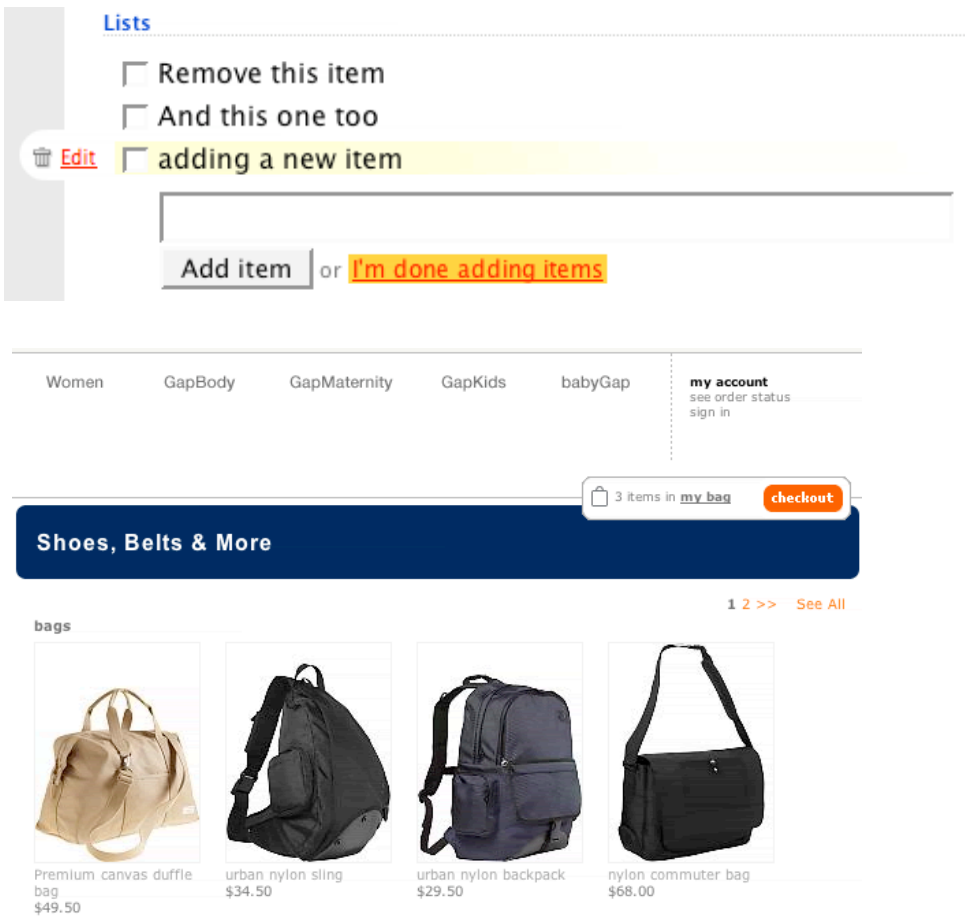


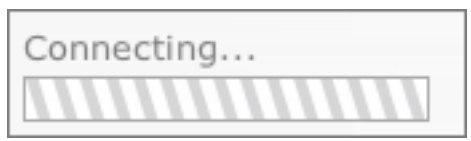
What you can communicate

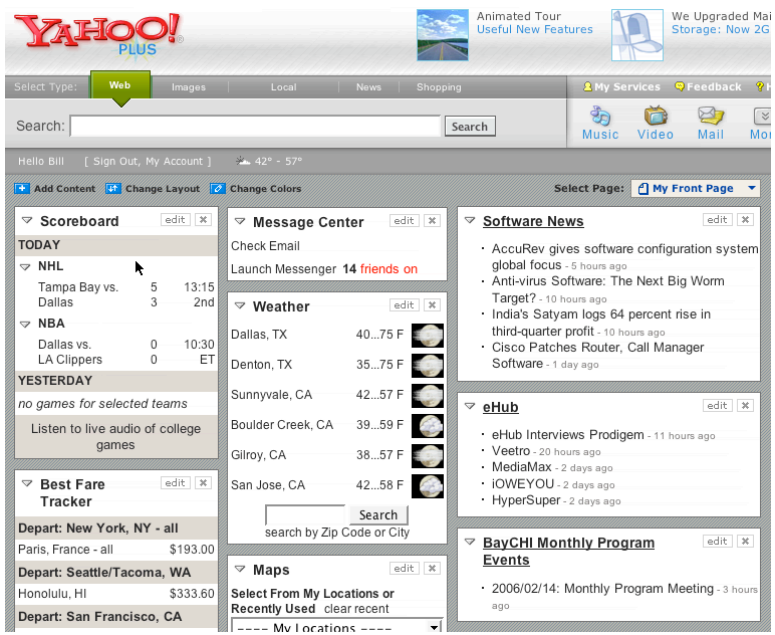
Speed up time

Slow down time

Show state change

Show relationships between objects





Speak to the BRAIN

Understanding attention processing

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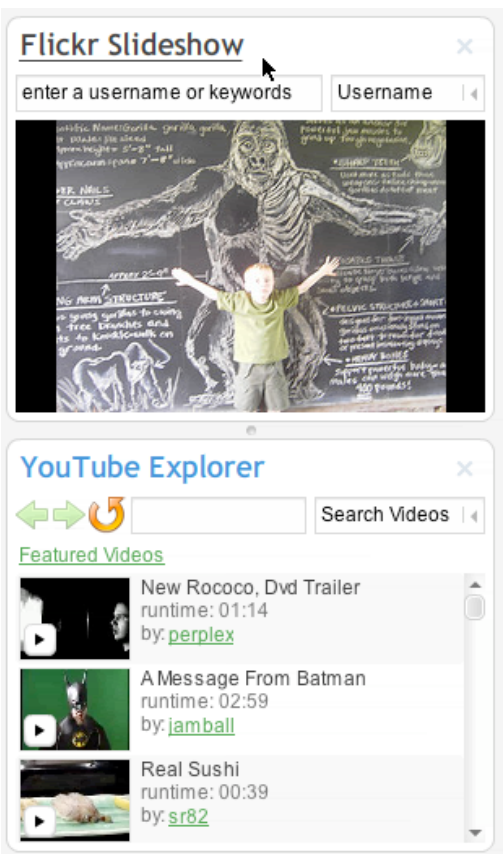


Keep it sane

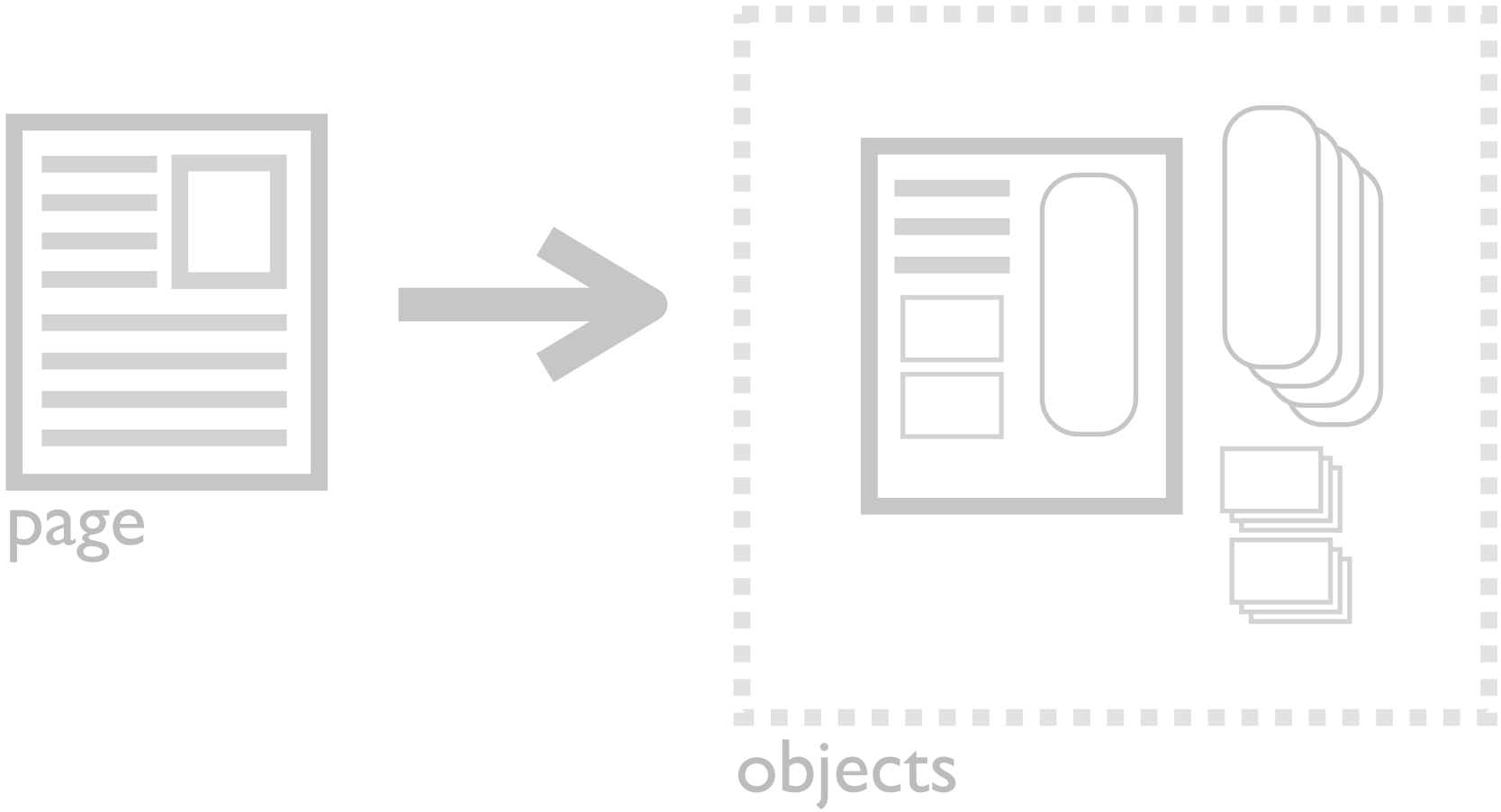
"Cut in half" rule of thumb

Use a "contrast knob" approach

Don't overuse

- The more rapid the change the more important the event.
- Rapid movement is seen as more important than rapid color change.
- Movement toward the user is seen as more important than movement away from the user.
- Very slow change can be processed without disrupting the user's attention.
- Animation can be used to communicate where an object was and now is

Shift. **Page to Objects.**



Think in objects

	Page-Based Web	Rich Internet App
Richer Model	Document	Rich Internet Object
Longer Lifecycle	Transient	Permanent
Community/ Sharing	Bookmark	Content, properties, and behaviors

Schedule View | Map View | Expand all

Add | Hotels | Things to do | Restaurants | Shopping | Entertainment

Create Item

Yosemite National Park

John Muir Vernal Falls Mist Trail Hike » Schedule | View | Delete

+1 209 372 0200
Happy Isle Shuttle Stop #16
Yosemite National Park, CA 95389
United States

This hike is also known as the Mist Trail because it passes right beside Vernal Falls, which in the spring blows a heavy mist everywhere. This 1.4 mile roundtrip hike is considered a moderate

Notes: [Edit]

Tags: [Edit]

Dates: [Add]

Scheduled Items

Wed 11/23/05 (day 1) - Yosemite Natl Pk, Yosemite National Park

- **Yosemite Lodge**
- **Tunnel View**
- **Bridalveil Falls Day Hike**

Other trips you might like ... Browse All Public Trips »

The Ultimate A ...
by ajrao1918
Copy this trip

SF Trip
by pilak_shah
Copy this trip

6 Parks in 8 d ...
by lacorebb
Copy this trip

Yosemite
by whiskeywom ...
Copy this trip

Cali Baby!
by ibily78
Copy this trip

Rich Internet Object.
Available. Selected.
Identifiable Object.

Rethinking the model

What is the user's mental model?

How to distinguish from content?

Rethinking the model

What is the user's mental model?

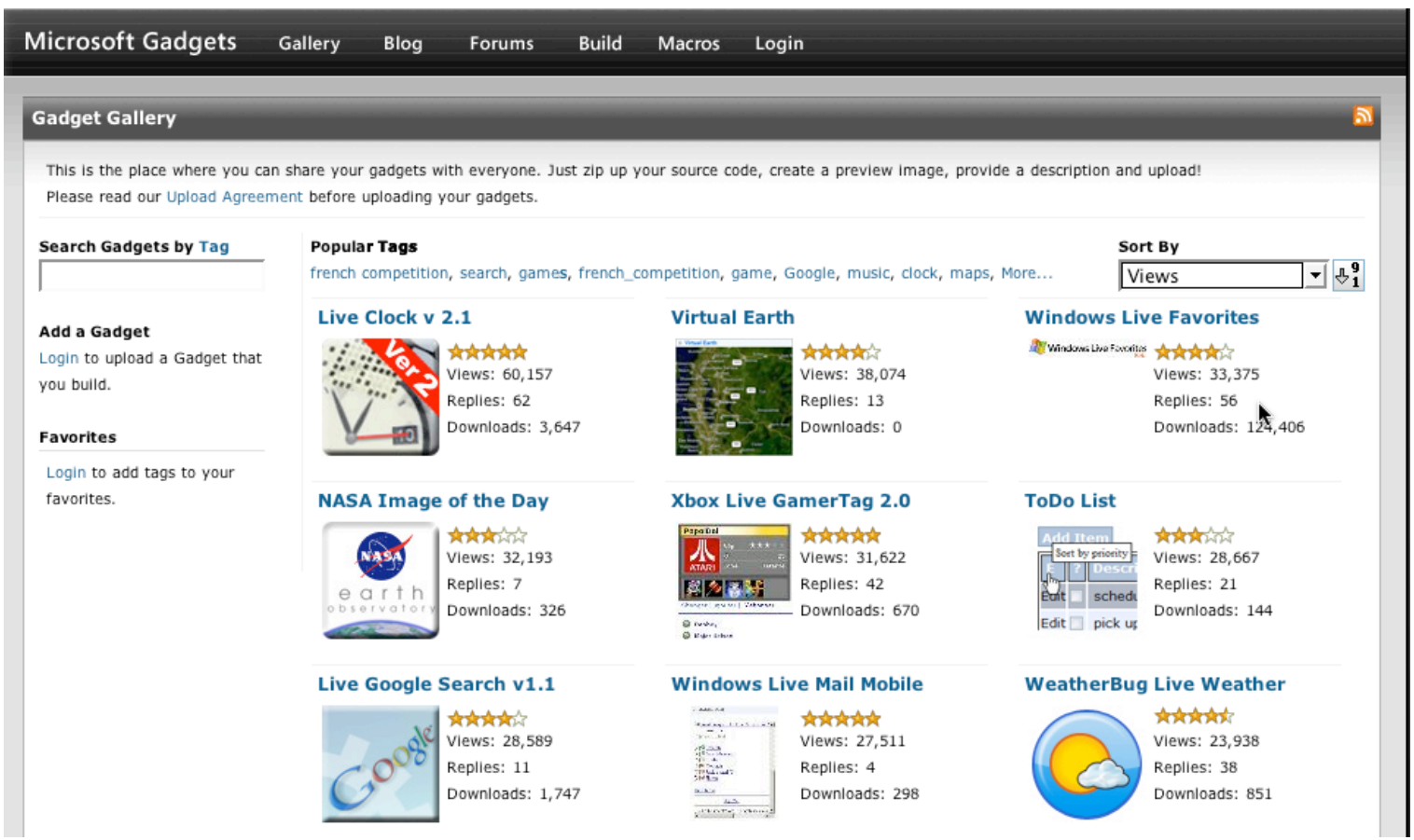
How to distinguish from content?

The power of sharing

Bloggable, shareable, findable

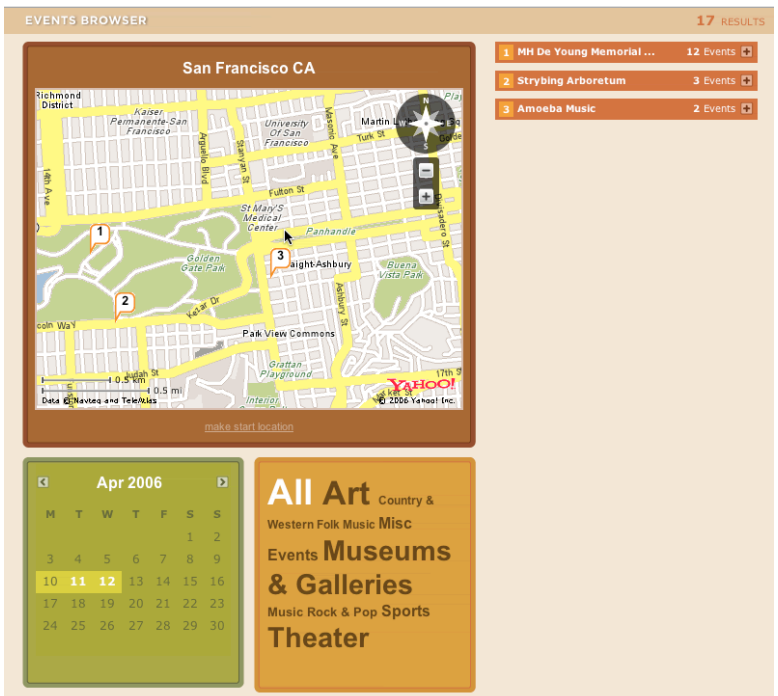
How to dial-in community

Collections



Rethinking the model

What is the user's mental model?
How to distinguish from content?



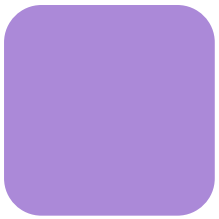
Web 2.0 as a platform

Rich objects fit the SOA model
Creates a good separation of concerns
Mashups

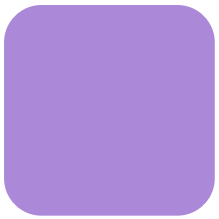
The power of sharing

Bloggable, shareable, findable
How to dial-in community
Collections

See your friends on a mobile map. Anywhere. Outside or inside.



Questions?



Participate?

Have You Seen a Cool Example?

- **Tag It!**
  - Use ‘ypatternexample’ tag in either delicious or Yahoo! My Web2
  - Use additional tags to identify the pattern name you think it belongs to
  - Write a comment about what is interesting about the example or how to see the interaction