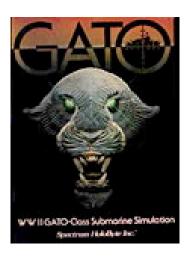
designing for ajax

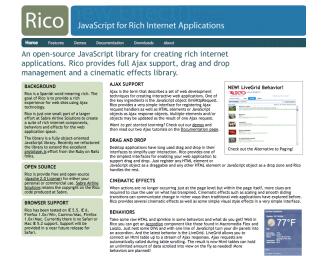
principles and patterns for rich interaction

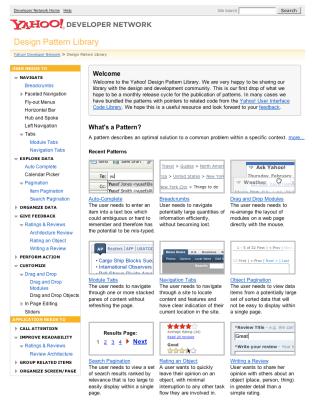
Bill Scott Yahoo! Ajax Evangelist b.scott@yahoo.com



background.

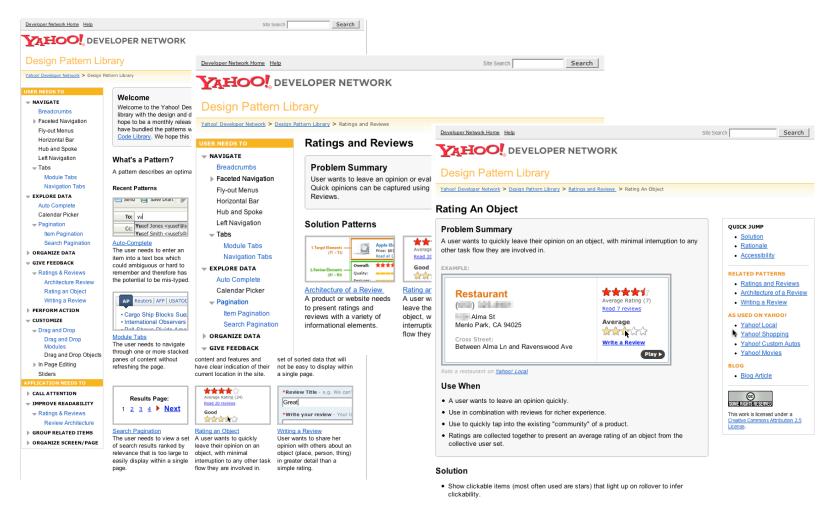








developer.yahoo.com/ypatterns







current 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. SelfHealing. Slide. Highlight. Invitation.
Cursor Invitation. Drop Invitation.
Tool Tip Invitation. Hover Invitation.

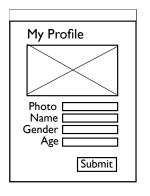


rich patterns.

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. 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.



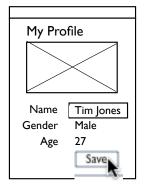
classic model. rich model.



Http Response

Server

Http Request

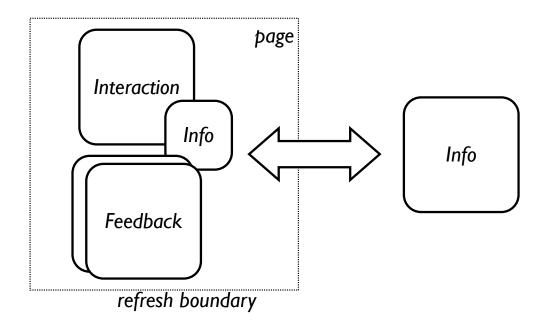




Server

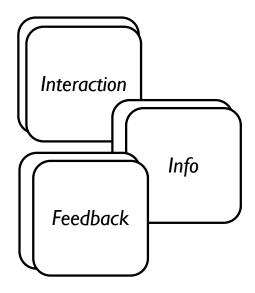


interaction. presentation. data.





data near. interaction rich.

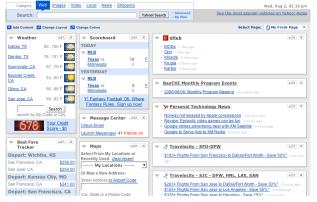


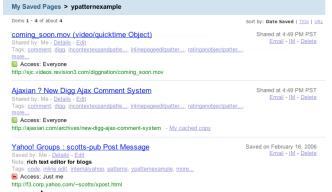


design principles for richness



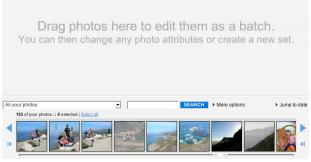
principle. make it direct.







pattern. drag and drop.



pattern. inline editing.



Pick Up at the Store

☐ Orange Juice

☐ Tomatoes
☐ Lettuce

□ Bread

□ Chips

pattern. in-context tools.



Prefer interaction within the page

What about discoverability?



State park near our home in San Jose

Click to edit

5 photos | Add a comment?

Photos are from 22 Oct 05.



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



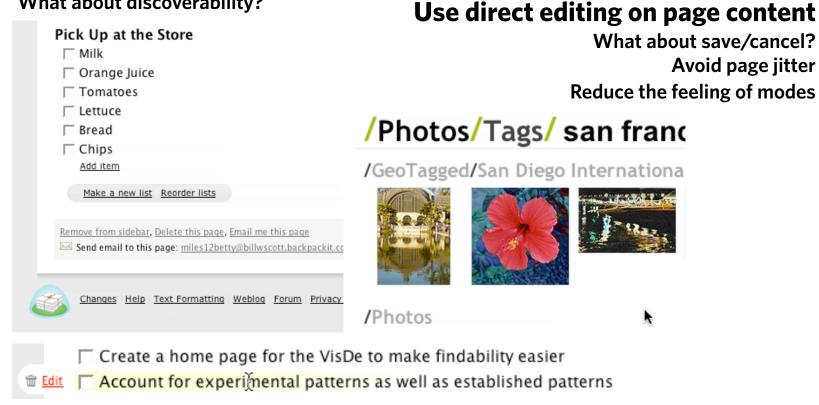
State park near our new home in San Jose (next to Milpitas)

SAVE OR CANCEL



Prefer interaction within the page

What about discoverability?



Provide in-context tools

Only good for single operations Can actually slow you down



Prefer interaction within the page

What about discoverability?





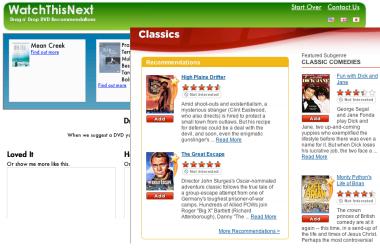
regarding the Compose Text Message

service.

Use direct editing on page content What about save/cancel?

Avoid page jitter

Reduce the feeling of modes



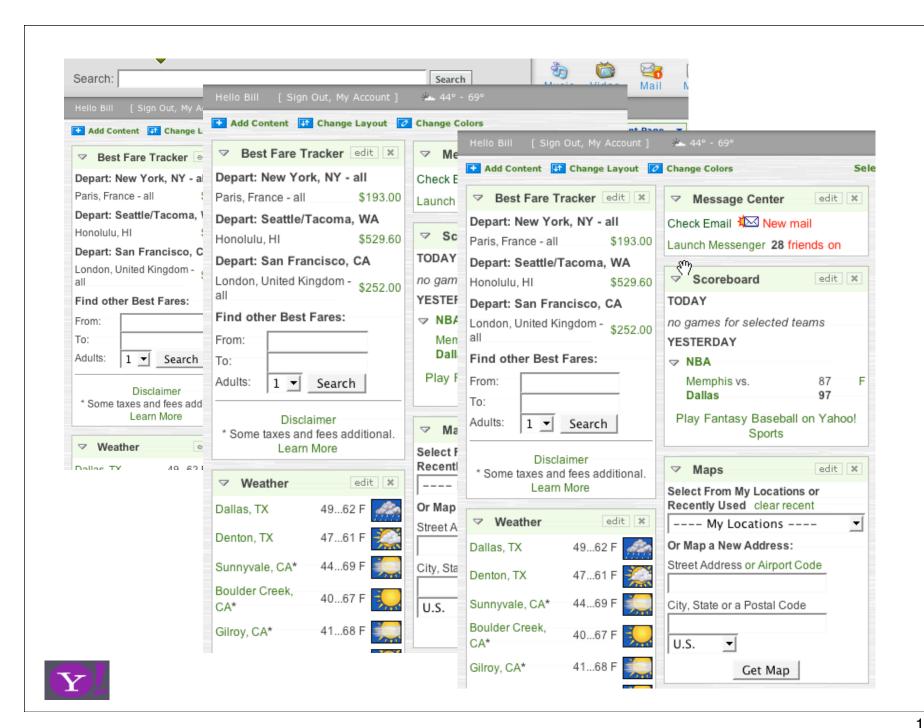
Use drag and drop where appropriate

Not for simply setting an attribute Good for layout changes or containment Needs transitions

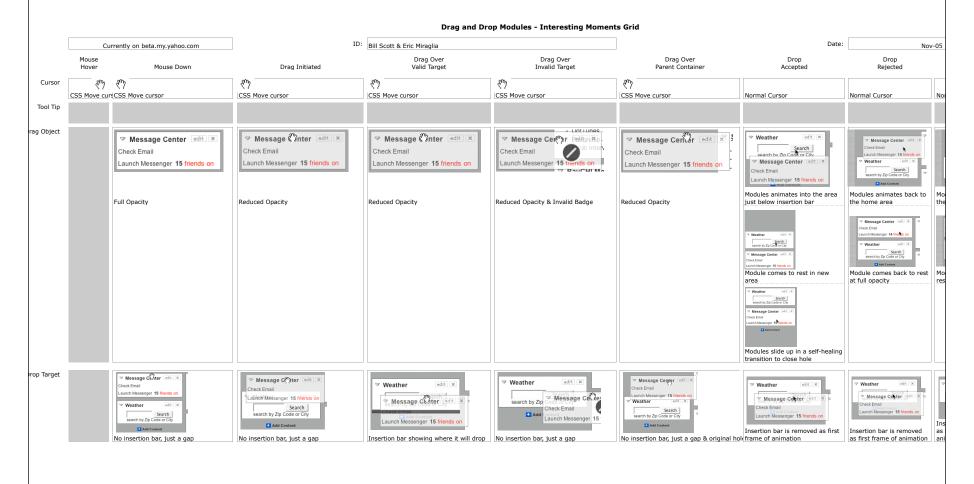
Provide in-context tools

Only good for single operations Can actually slow you down

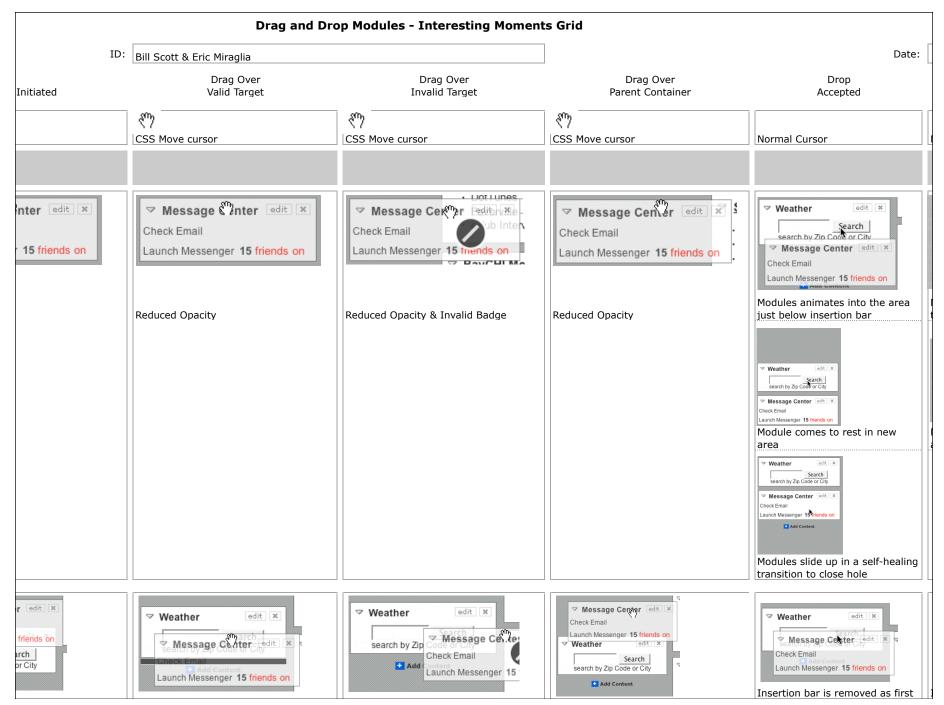




Take care of the interesting moments

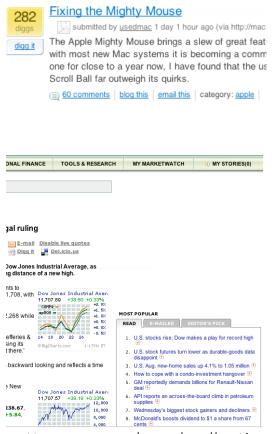






principle. keep a light footprint.

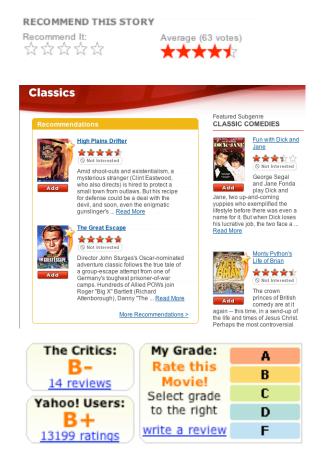
pattern. in page action.



pattern. remembered collection.



pattern. rating an object.

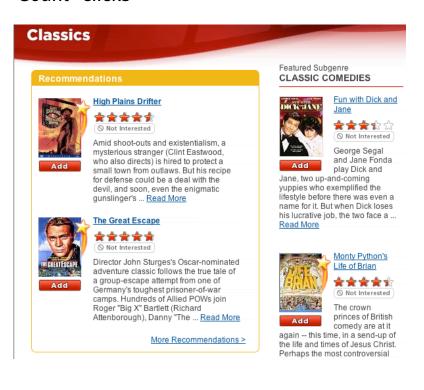




keep a light footprint

Watch your click weight

Keep actions immediate and light Count "clicks"





282

diggs

digg it

submitted by usedmac 1 day 1 hour ago (via http://mac

The Apple Mighty Mouse brings a slew of great feat with most new Mac systems it is becoming a comm one for close to a year now, I have found that the us Scroll Ball far outweigh its quirks.

60 comments | blog this | email this | category: apple |



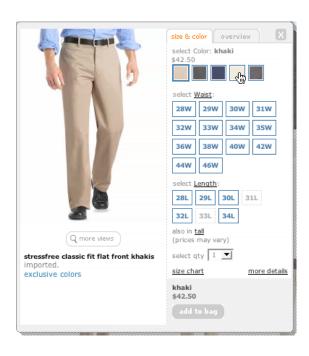
keep a light footprint

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







keep a light footprint

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

RECOMMEND THIS STORY

Recommend It:



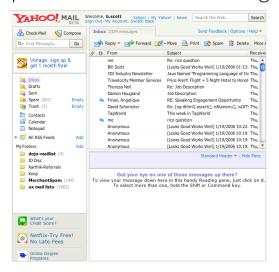
Use lightweight events

Hover
Blur, focus
Click. Avoid double-click

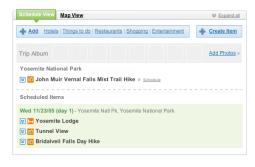


principle. cross borders reluctantly.

pattern. on-demand scrolling.



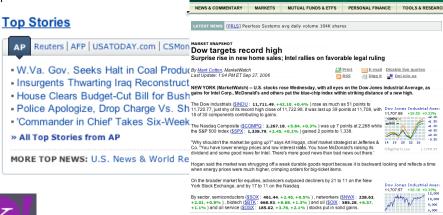
pattern. in-context expand.



pattern. inline assistant.

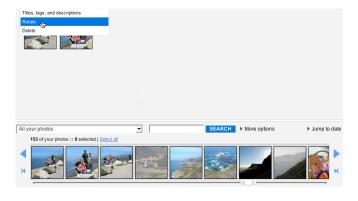


pattern. hover details.



Market Watch

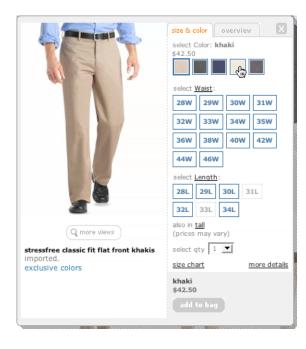
pattern. lightweight popup + lightbox



cross borders reluctantly

Rethink process flows

Its the user's model, not the page model Every page jump is a mental speed bump





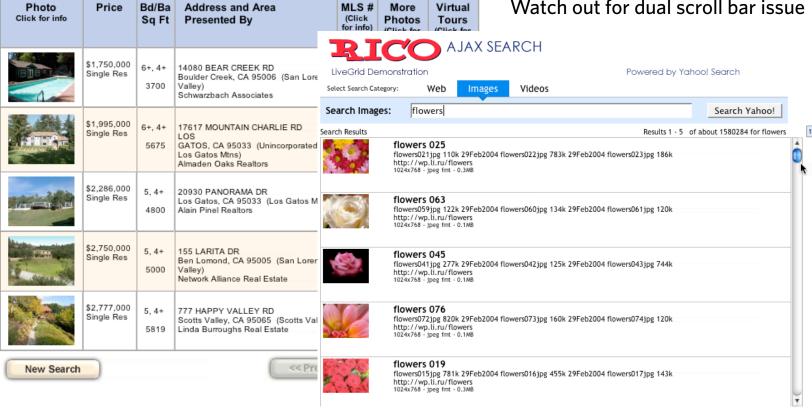


Rethink process flows

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





cross borders reluctantly

Use overlays

For more information
Replace page transition
When editing an individual, more complex item
Be symmetrical
Try not to disturb the page

Bill, the following movies were chosen based on your interest in: Animal Crackers
Something the Lord Made
X2: X-Men United



Chico and Zeppo stow away on a luxury liner. Before ... Read More



<u>Lackawanna</u> Blues

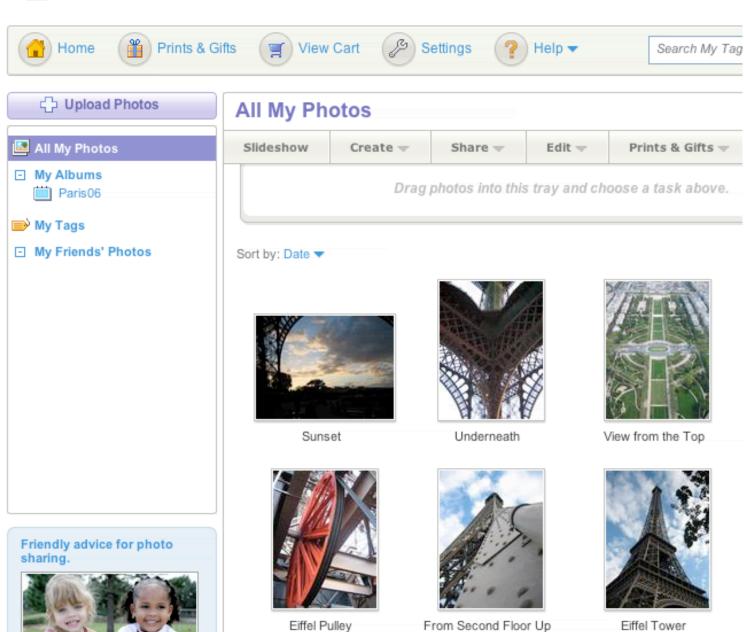






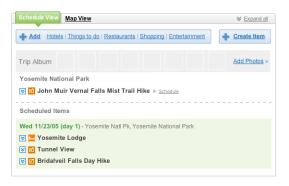






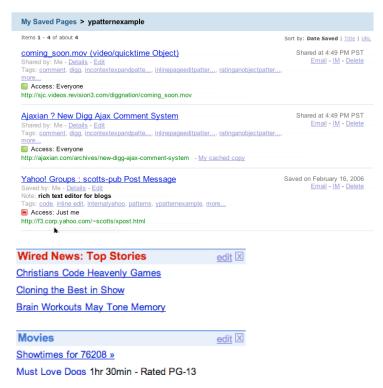
Use overlays

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

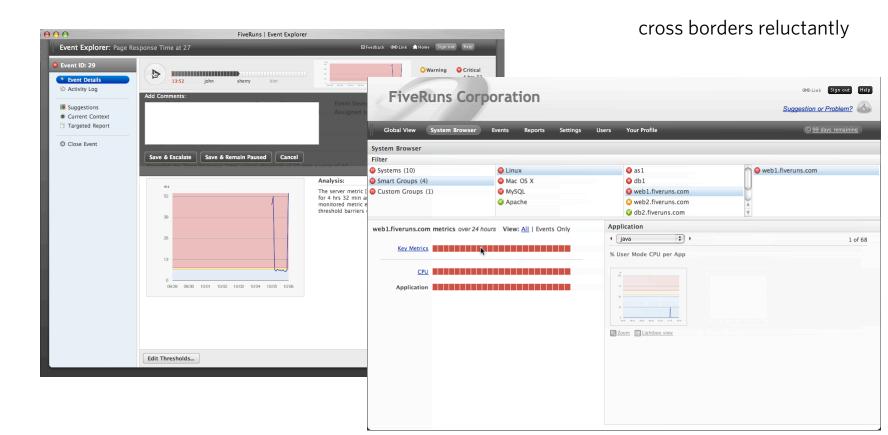


Use in-context expands

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







Use real-estate creatively

Use Slideouts
Us in-place zoom
Remember the backstage





key principle

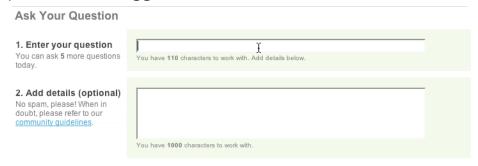
Interaction

Prefer direct, lightweight, in-page interaction.



principle. give live feedback.

pattern. live suggest.



pattern. auto complete.



Flights | Hotels | Cars | Deals | Best Fare Buzz

Round-trip One-way Multi-city
From To

Show Nearby Airports
Leave Imme Anytime Prefer Nonstop

Search with us, book with them. TM

Multi-city

From To

V Show Nearby Airports
Return Time Anytime Prefer Nonstop

Search multiple sites for hundreds of airlines.

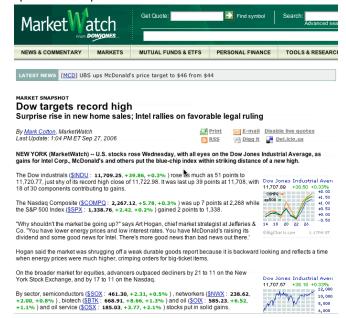
pattern. busy indicator.



pattern. live previews.



pattern. periodic refresh.



Keep the goal in mind

Design for relevancy Is it narrowing or is it distracting?



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



Web	<u>Images</u>	Groups	News	Froogle	Local	more »
	Goo	gle Searcl	h l'm	Feeling L		

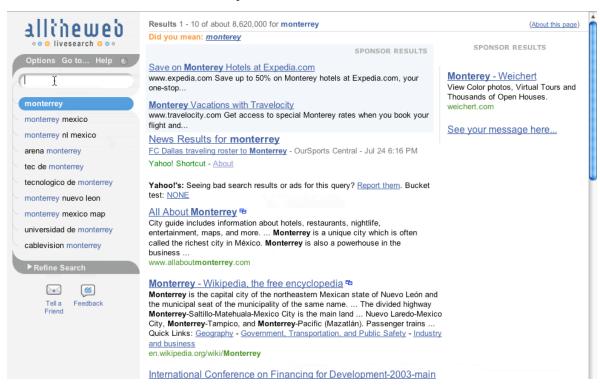
pe, Google will offer suggestions. Use the arrow keys to navigate the results. L

Feedback - Discuss - Terms of Use - FAQ
©2006 Google



Keep the goal in mind

Design for relevancy
Is it narrowing or is it distracting?
Use feedback to boost confidence
Let the user iterate where possible



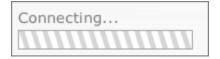


Keep the goal in mind

Design for relevancy
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





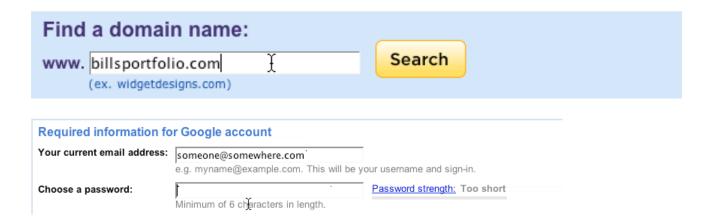


Keep the goal in mind

Design for relevancy
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



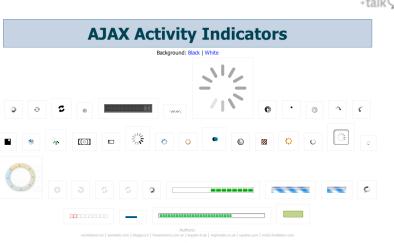
bi

Keep the goal in mind

Design for relevancy
Is it narrowing or is it distracting
Use feedback to boost confidence
Let the user iterate where possible

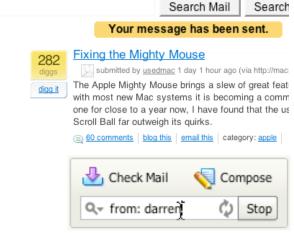
Keep the user engaged

Time passes faster Look for engaging moments



Use live-previews

Look before you leap



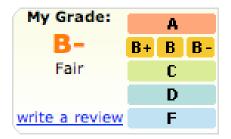
Keep feedback focused

Keep it in context
Avoid creating feedback noise/jitter
Show dynamically what is relevant
Updating too many areas at once will be confusing



principle. offer an invitation.

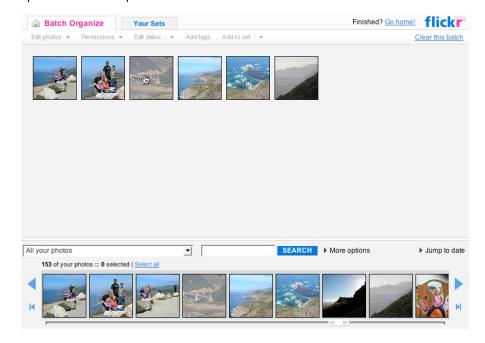
pattern. hover invitation.



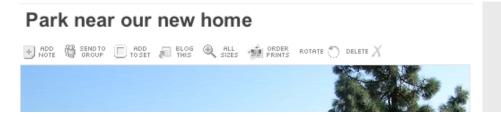
pattern. tour invitation.



pattern. drop invitation.



pattern. tooltip invitation + hover invitation + cursor invitation.





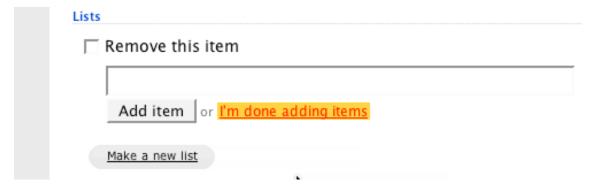


offer an invitation

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



FREE Shipping
No Late Fees
60,000+ Titles

FREE Shipping
a month
Collick here

Try Netflix for Free - Ad Feedback

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

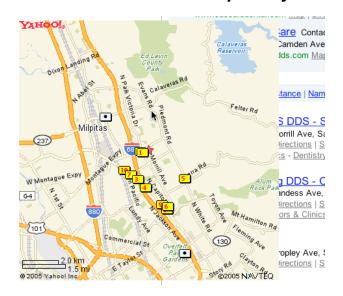
Forty Associates recently added product previews to their Web site as part of a small beta program. During the beta, visitors to Associate sites who viewed a product preview clicked through to Amazon.com over 4% of the time; those clicks resulted in a purchase nearly 6% of the time.

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. <u>Click here to Join your fellow Associates in beta testing product previews</u>.

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. <u>Click here</u> for answers to questions you might have about the beta program.

Keep actions out of it

Don't make the user afraid to explore Don't proselytize





offer an 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

Park near our new home



Get the actors involved

Hover Invitation Cursor Invitation Tooltip Invitation



offer an 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





Get the actors involved

Hover Invitation Cursor Invitation Tooltip Invitation

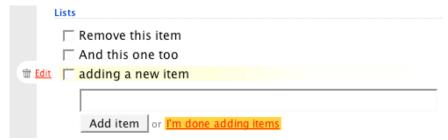
Use invitations to aid discoverability

Two challenges: idiom & feature Adding signposts, always-on clues doesn't scale Add tours, help pedals, tips, spotlights

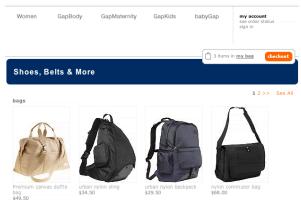


principle. show transitions.

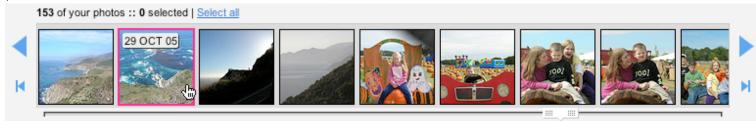
pattern. fade transition + self-healing transition.



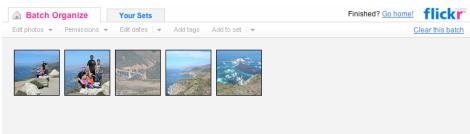




pattern. slide + animate.



pattern. spotlight.





Speak to the BRAIN

Understanding attention processing



Tips & Tools for Using Your Brain





Foreword by Steven Johnson, author of Mind Wide Open



Speak to the BRAIN

Understanding attention processing Sending the wrong message

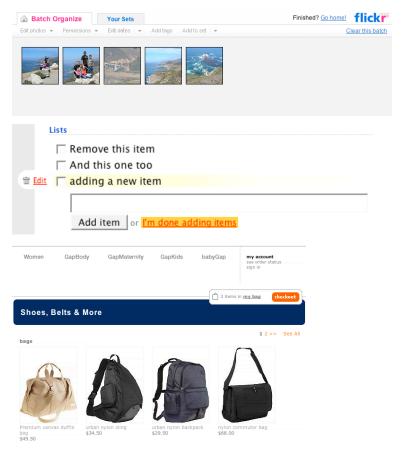






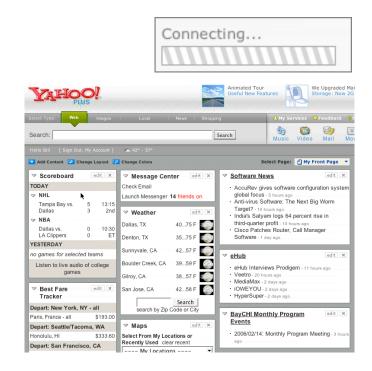
Speak to the BRAIN

Understanding attention processing Sending the wrong message



What you can communicate

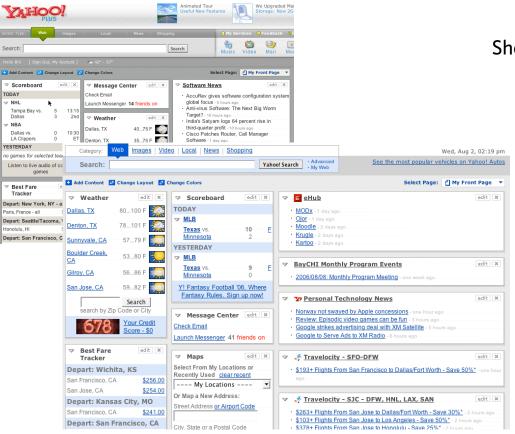
Speed up time Slow down time Show state change Show relationships between objects Focus attention





Speak to the BRAIN

Understanding attention processing Sending the wrong message



What you can communicate

Speed up time Slow down time Show state change Show relationships between objects Focus attention

Keep it sane

"Cut in half" rule of thumb Use a "contrast knob" approach Don't overuse



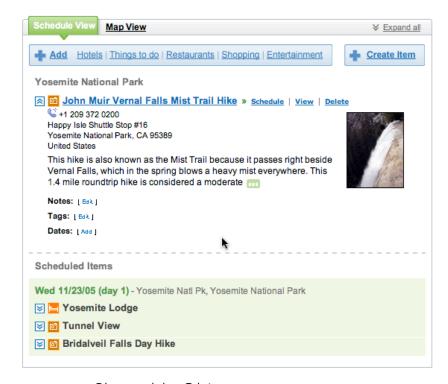
key principle

Feedback

Provide invitations beforehand, transitions during, and feedback after interaction



principle. think in objects.



pattern. Shareable Object.



Y Amsterdam Trip Plans on Yahoo! Travel Yahoo! Shortcut - About

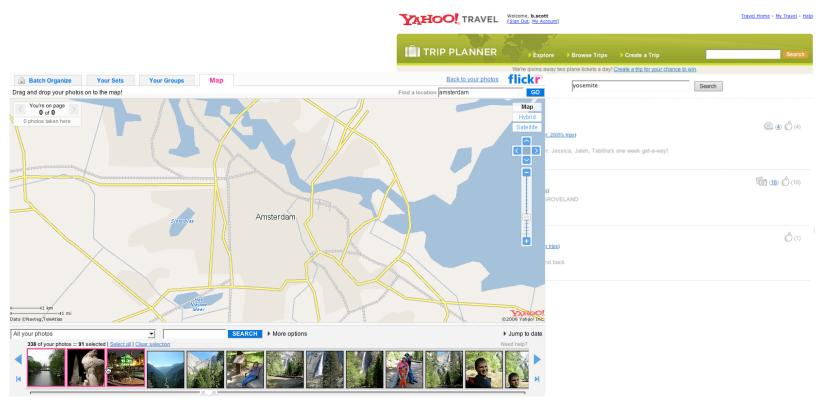


My Web Results for amsterdam trip (49)

www.medievalamsterdam.com - 9k - Cached - More from this site - Save

The power of sharing

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





principle. tie information to interactivity.



pattern. Multivariate Views.





Think deeper interaction

Multi-variate data



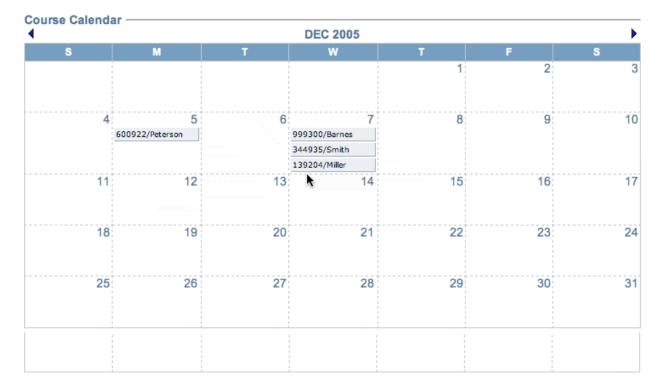


Think deeper interaction

Multi-variate data Interesting relationships



Students to Enroll —			
	Crew Id	Last Name	First Name
3	349394	Craft	Adrian
3	432939	Douglas	Elayne
3	468370	Hill	Petra



Think deeper interaction

Multi-variate data
Interesting relationships
Just-in-time information



key principle

Info

Think in objects, tie information to interactivity



key principles for richness

Interaction

Prefer direct, lightweight, in-page interaction.

Feedback

Provide invitations beforehand, transitions during, and feedback after interaction.

Info

Think in object, tie information to interactivity



pattern library.
yahoo! blog.
my blog.
this presentation.

developer.yahoo.com/ypatterns yuiblog.com looksgoodworkswell.com billwscott.com/share/presentations/aeboston/



